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Labour Migration of Ukrainians to the Warmia-Masuria Province: Current Trends and Key Challenges¹

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Abstract

The article examines the labour migration of Ukrainians to the Warmia-Masuria province. Such research methods as systematic, comparative, behavioural, statistical data analysis, document analysis, focused interviews and case study helped to identify current trends and key challenges presented by migration flows of Ukrainians to the province. The main factors affecting Ukrainian labour migration to the province are analysed, with particular emphasis placed on quantitative descriptions of the features of Ukrainian employment in the region. It is concluded that there are prospects for further labour migration of Ukrainian workers to Warmia-Masuria.

Keywords

labour migrants, Ukrainian workers, Warmia-Masuria province

1. Introduction

Migration and its consequences have long been high on the international agenda. The complex and cross-sectoral nature of the issue leads to the awareness that the motives that urge the population to resettle abroad are economic, political, social, cultural, or even environmental in nature. However, upon analysing the trends of international migration flows, we can conclude that the economy is the most important motivation for migrants, in particular the search for a better-paid job and better living conditions. This, in turn, is expressed in the development of labour migration, which involves the movement of able-bodied people with the intention of employment.

As of today, Ukraine is an active exporter of labour. Under the influence of transformations in geopolitics and the global economy, the largest share of Ukrainian labour migrants is concentrated in Poland. According to unofficial estimates, 1.5 million labor migrants from Ukraine were in Poland in 2021. Now, in the context of full-scale Russian aggression against Ukraine, it is difficult to estimate the exact number of Ukrainian labour migrants in Poland, as approximately another 1.4 million Ukrainians migrated to this country after February 24, 2022, mostly as refugees.

The present stage of Polish-Ukrainian relations emphasises the strengthening of close ties and the establishment of international cooperation between Ukraine and the Warmia-Masuria province, which demands renewed scrutiny of labour migration of Ukrainians to this province.

What are the key trends in the labour migration of Ukrainians to Poland? What factors activate the flow of labour migrants from Ukraine to Warmia-Masuria? What peculiarities do Ukrainians face when seeking employer declarations and work permits in Poland? What role does the employment

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centre of the Warmia-Masuria province play in the employment of people from Ukraine? Which agencies mediate the employment of Ukrainians in Poland? What role do Ukrainian labour migrants play in crime increase in Poland? Do Ukrainian labour migrants and their families face discrimination? How did COVID-19 affect the employment and working conditions of Ukrainians in Poland? How did the Russian full-scale invasion of Ukraine change the migration pattern of Ukrainians in Poland?

The article consists of several parts. The first part provides a brief overview of the research methodology. A general description of the labour migration of Ukrainians to the territory of Poland is given in the second part of the work. An analysis of the reasons for the transfer of a significant share of the Ukrainian working population to the Warmia-Masuria province in Poland is carried out in the third part of the work. The fourth part of the work reveals the procedural and quantitative characteristics of the employment of Ukrainian labour migrants. The current challenges of labour migration from Ukraine to the Warmia-Masuria province are characterised in the fifth part of the paper. The sixth part of the work includes the results of a study of current trends and problems of Ukrainian labour migration to the Warmia-Masuria province.

2. Methodology

The article is based on an analysis of relevant literature, internet resources, and focused interviews. Among the Ukrainian scholars who have studied the labour migration of Ukrainians to Poland, it is worth highlighting such as O. Malynovska, T. Nahorniak, Y. Pachos, A. Zubyk, E. Libanova, A. Karpenko, H. Zasorina, B. Skochynska-Prokopovych, I. Luchakivska, and O. Levytska. These researchers have considered the causes, directions, and consequences of Ukrainian labour migration to Poland, along with its quantitative, qualitative and regional characteristics, modern realities and challenges, Polish migration policy, and migration dynamics.

Among contemporary interpretations of migration processes, the most striking in this context are the works of E. Lee, W. Zelinsky, A. Lewis, J. Berry, Luis Garnizo, and George J. Borjas. The most appropriate for the assessment of migratory sentiments of society, in our opinion, is Everett Lee's notion of push and pull factors. Migration is interpreted as a function of the relative attractiveness of home and host countries, and the presence of barriers is interpreted as a restriction of migration processes. According to Everett Lee's migration model, a push is a factor that motivates people to leave a place for reasons that may be economic, cultural, or environmental. Within these three groups of factors, there are many conditions that cause push. Among the most notable are 'limited capacity', discrimination, loss of wealth, and war. As with the push factor, the pull factor that motivates people to move to a new place has economic, cultural, and environmental dimensions, which may include employment opportunities, better living conditions, social security, and an attractive climate. According to Everett Lee, all migration factors can be divided into four groups: 1. Factors associated with the area of origin; 2. Factors associated with the destination; 3. Intervening obstacles; 4. Personal factors (Nosek 2018).

Wilbur Zelinsky's concept of mobile transition also takes a prominent place in migration research. This innovative approach takes into account the role of globalisation in changes in international migration and considers migration processes in connection with other dynamic processes, namely economic growth, development of transport, new channels of information transmission, changes in economic opportunities, and growth of population welfare (Synkovets 2016).

Dual labour market theory, developed in 1954 by the British economist Arthur William Lewis, stands out among the economic theories concerning migration processes. The key thesis of the theory is that the main reason for migration is primarily the difference in wages resulting from changes in labour supply and demand in sending and receiving countries, (Jaskułowski and Pawlak 2016).

The neoclassical economic approach focuses on the study of 'human capital' and interprets labour migration as a result of economic development. According to the theory, a difference in wages is the main factor of migration and serves as a key pushing factor in recipient countries and, accordingly, an attractive factor in donor countries. Migration flows are directed from less-developed countries with a surplus of labour and low-wage jobs to more developed countries with limited labour and high wages. Thus, migration flows will exist as long as there is a significant wage gap.

In addition, the institutional approach asserts that the level of support for migration from various governmental and non-governmental organisations, humanitarian organisations, law firms, social services, and mafia structures will directly affect the share of migration (Verbovyi 2011).

For the implementation of our research, interviews with the leader of the Ukrainian minority in Warmia-Masuria and the management of Ukrainian schools in Górowo Iławieckie and Bartoszyce, as well as with representatives of the management of the province and county employment agencies in Olsztyn, were extremely valuable. These interviews revealed interesting facts about the lives of Ukrainian labour migrants in Poland, details about the peculiarities of teaching children of Ukrainian labour migrants, and changes in Ukrainian schools in Poland. An important resource for the study of the problems of adaptation of Ukrainian labour migrants in Poland, specifically the situation in the Warmia-Masuria province, is the information provided by the representatives of the Police and Labour Inspectorate. In addition, visits to Greek Catholic churches in Elbląg, Frombork, and Olsztyn allowed us to talk to priests about the life of Ukrainian labour migrants.

The research methodology is based on the principles of integrity, logical consistency, completeness, and scientific pluralism.

A mixed-method approach was adopted for the study. Labour migration was analysed as a systemic phenomenon, the formation of which is influenced by environmental processes. The comparative method was used to compare the dynamics of the number of work permits, seasonal permits, and employer declarations in Poland and in the Warmia-Masuria province and to differentiate quantitative indicators of the national and gender aspects of the issuance of work permits in the province. Behaviour analysis was carried out to understand that of Ukrainian workers in the Warmian-Masurian province. Statistical data analysis was used to provide information on the issuance of work permits, seasonal work permits, and employer declarations; on the spheres of activity and professions chosen by Ukrainians, the mediation of the Employment Centre and Polish employment agencies, the legality of Ukrainian work in the province, and on offences committed by foreigners in Olsztyn. Documents including the provisions of the Law of May 2, 2020, "On special decisions related to the prevention, counteraction, and combating of COVID-19, other communicable diseases, as well as the crises caused by them" were analysed, as was other relevant Polish legislation.

In addition, to better understand the challenges of labour migration of Ukrainians to Warmia-Masuria, the case study method was applied to analyse the case of the educational problem in Górowo Iławieckie, a measles outbreak, and the inhumane treatment of Ukrainian workers at factories in Nowe Miasto County.

3. Key characteristics of Ukrainian labour migration to Poland

It is well known that Ukrainian labour emigration is growing every year, causing an acute problem for the state and its economy. Ukrainian domestic problems, in particular low wages, are the primary reason for this development. More specifically, factors that prompt Ukrainians to seek work in other countries are high unemployment, the reduction or disappearance of certain industries, economic backwardness in certain regions, the lack of demand for a certain profession, or the impossibility of the full realisation of personal potential within the country (Fenik 2019).

According to Ukrainian political commentator O. Radchuk (2019), the intensification of migration flows from Ukraine is due not only to the level of wages, which is several times lower than wages in neighbouring countries, including Poland, but also an unfavourable investment climate, the difficulty of starting a business, and the lack of competitiveness of the Ukrainian economy. By gaining access to world labour markets, Ukrainians were able to recognise, firstly, the weakness of Ukrainian opportunities to compete with other countries for labour resources, and, secondly, the existence of competition for labour migrants from Ukraine between countries such as Poland, Hungary, the Czech Republic, Slovakia, and Germany.

The significant intensification of Ukrainian emigration since 2014 is related to Russia's military operations in Ukraine. Unfavourable social policy in Ukraine also led to an increase in the volume of migration of citizens in 2015–16. The annexation of Crimea and the war in the east of Ukraine led to a complication of the socio-economic situation. In addition, those who were forced to leave their

homes in the Crimea, Donetsk, and Luhansk regions began to look for opportunities to improve their living conditions, as they faced the negative consequences of legal uncertainty regarding their status as internally displaced persons, lack of state support, and illegal restrictions on certain rights (Nahorniak, Pachos 2018).

One of the turning points in the migration of Ukrainians to Poland was the beginning of the full-scale invasion of Russian troops into Ukraine, which caused a significant wave of Ukrainian refugees abroad, mostly to Poland. The full-scale war in Ukraine changed the portrait of a Ukrainian who migrates abroad for temporary residence and work. According to the sociological study 'Refugees from Ukraine in Poland, the Czech Republic and Romania' conducted by the Migration Platform EWL, the Fund for Migrant Support in the Labor Market and the Center for East European Studies of the University of Warsaw, the majority of refugees from Ukraine were women who left Ukraine due to the presence of minor children. Most of them do not know Polish language, have no close relatives there (Kryzhanivska 2023).

In the context of the above, Poland is an attractive place for Ukrainians, thanks not only to higher wages, but also to the development of migration networks, linguistic and cultural kinship, historical ties, geographical proximity, and a partial level of job security.

Poland has transformed from an emigration state to an immigration state. Immigration in Poland has its own specific features, including the domination of migrants from neighbouring non-EU countries, including, above all, Ukrainians, and a predominance of short-term and seasonal immigration. The greatest motivation for immigrants is economic, which leads to high rates of employment among migrants (Adamczyk et al. 2022).

It should be noted that an important factor in the emigration of Ukrainians to Poland is Poland's favourable migration policy. This policy is based on geographical and cultural proximity, which is explained by the mobility between neighbouring states and the fact that their population usually adapts easily to Polish society. Additionally, Poland prioritises increasing the scale of legal employment of foreigners who possess skills in demand in its labour market. Poland is actively expanding the network of interregional cooperation with Ukraine, opening its own borders to Ukrainians, signing relevant agreements and memoranda, and improving the social and economic security of migrants from Ukraine (Brunarska et al. 2022).

According to the 'Labour Immigration Barometer', geographical proximity is the most frequent reason why Ukrainians go to work in Poland, influencing 53% of migrants. The next factor is money (44%), and in the third place is a low language barrier (34%). It is thanks to such factors that three out of four Ukrainian labour migrants return to Poland (Shataieva 2018).

Statistics provided by Poland's Office for Foreigners show that at the end of 2021, more than 300,000 citizens of Ukraine had a valid residence permit in Poland. The share of Ukrainians among foreigners in Poland is almost 57%. In terms of gender, 54% of Ukrainians with residence permits in Poland are men and 46% are women. About 60% are between the ages of 18 and 40, while people under 18 make up about 12% and people over 40 make up about 28% (Obywatele 2021).

At the All-Ukrainian Forum 'Ukraine 30. Labour Resources', which took place on 20 July 2021, the Ukrainian ambassador to Poland, A. Deshchytsia, made a statement on the labour migration of Ukrainians to Poland. First of all, the ambassador noted the tendency to increase the number of labour migrants – since 2014, for example, the number of labour migrants had increased by a factor of two or three. Emphasising that about 1.5 million Ukrainians at that time have been working in Poland, A. Deshchytsia claimed that 600,000 of them officially pay taxes to the social insurance fund and the rest work legally under employment contracts without paying taxes (Zahorodnia 2021).

It is worth noting that the growth of employment of Ukrainian migrants in spheres beyond construction or cleaning gradually destroys the received wisdom regarding the limited variability of work opportunities for Ukrainians in Poland. Furthermore, the ambassador stressed that Ukrainian migrants now not only come to Poland to work but also consider starting and developing their own businesses, as evidenced by the following statistics: in 2014 there were 680 companies in Poland at least partially owned by Ukrainians, whereas in 2021 there were already 16 thousand such companies (Zahorodnia 2021).

According to EastWestLink, a Polish employment agency for foreigners, as of 2019, the largest number of labour migrants among Ukrainians in Poland were aged 26–35, but there is a trend

towards an increase in the number of 18 to 25-year-olds. Traditionally, men predominate among labour migrants, accounting for approximately 60%, but the number of women is also gradually increasing (Ukrainska 2019).

It is also important to take Social Insurance data into account. Experts note that the information on foreigners collected by this institution is crucial not only for the social insurance system, but for the economy and, in particular, the labour market. According to the organisation's data, in April 2021, a record number of 780,500 foreigners were insured in Poland. This represents an increase over the previous month of 14.5 thousand, among which 10.3 thousand are citizens of Ukraine. In general, Ukrainians make up the largest group among foreigners registered for insurance, about 75%. For comparison, at the end of August 2020, the number of foreigners registered with the Social Insurance Institution (ZUS) stood at 689,000, including 507,000 citizens of Ukraine. The number of foreigners applying for insurance was affected by the COVID-19 pandemic. Initially, a significant increase in the number of Ukrainian citizens arriving in Poland was a consequence of the reopening of the borders after the first lockdown period. At the same time, these data point to a high demand for labour migrants in Poland, and may also suggest that foreigners prefer legal work that provides health insurance and, accordingly, access to health care (The number 2021).

Thus, it can be concluded that the most prominent motive for the labour migration of about 1.5 million Ukrainians to Poland is economic in nature, although geographical and cultural proximity, the possibility of legal employment, and Polish migration policy are also quite important factors.

4. Ukrainian labour migration to the Warmia-Masuria province

First of all, over and above the general positive features of employment in Poland, the Warmia-Masuria province is attractive to labour migrants due to the concentration of a significant part of the Ukrainian diaspora here. According to official data, about 11,000 Ukrainians now live in Warmia-Masuria. However, unofficial estimates number Ukrainians in the Warmia-Masuria province at about 75–85 thousand people (Astramowicz-Leyk and Turchyn 2022).

Close interregional cooperation has been established between certain regions of Ukraine and the Warmia-Masuria province. The provincial government attaches great importance to relations with Poland's eastern neighbour, Ukraine. The presence of a significant and active Ukrainian minority in Warmia-Masuria makes cooperation between Ukraine and the province an important aspect of the international policy of both parties. The cooperation of the province with the Rivne region, initiated on 8 November 1994 with an agreement on friendship and cooperation, is especially well-developed. The regions cooperate across a wide range of fields: utilities, communication systems and transport, construction of infrastructure facilities, economy and trade, small and medium businesses, entrepreneurship, agriculture, regional planning and environment, organisation of events, etc. (Prokop 2019).

The existence of a developed network of cooperation, to some extent, inspires confidence in those who plan labour migration to the province.

The presence of many enterprises and companies that Ukrainians can consider potential employers encourages labour migration to the Warmia-Masuria province. The capital and largest city in Warmia-Masuria, Olsztyn, boasts an expanded network of enterprises involved in the timber industry and the industrial processing of agricultural products. As of today, Olsztyn is the main regional centre of the woodworking and furniture, food (dairy, meat, and breweries), and light industries. The transport industry, production of building materials, and printing products are also developing. Mining also plays a part (Olsztyn 2005).

Projects aimed at supporting foreigners in the province also serve to increase Ukrainian immigration. One example is the project 'Support system for foreigners living in the Warmia-Masuria province in the field of social adaptation and integration', which lasted from January 2018 until September 2020. The main goal of the project was to raise the standard of integration services for foreigners in the Warmia-Masuria province and deepen the integration of foreigners with Polish society (Proiekt 2018).

Another noteworthy project was 'Support for the Integration of Migrants in the Warmia-Masuria province', also funded by the national budget and the National Asylum, Migration and Integration

Fund. The project 'Support for the integration of migrants in the Warmia-Masuria province' lasted from May 2020 to May 2021, with the primary goal of providing comprehensive support to at least one thousand foreigners living within the Warmia-Masuria province, facilitating the integration process. The key objectives of the project were: 1. Improving the social and living conditions of migrants in difficult transitional situations; 2. Improving communication skills through the introduction of Polish language courses that include elements of Polish culture and history; 3. Improving the competence of migrants in the fields of civil rights and responsibilities, Polish values, labour law and the labour market, and living conditions; 4. Supporting foreigners in job search, career development, and business relations; 5. Organising intercultural events and establishing a platform for the study of similarities and differences between migrants and wider Polish society; 6. Highlighting the positive features of migration as a process that brings enrichment to local communities, which in turn promotes the integration of foreigners (Pidtrymka 2020).

In our opinion, the implementation of such projects can contribute to the awareness of migrants from Ukraine of their value to the province, as well as to the understanding that they can rely on some support there.

Thus, the main factors influencing Ukrainian labour migration to Warmia-Masuria have been identified as low wages in Ukraine, the low competitiveness of the Ukrainian economy, the development of migration networks, the geographical, linguistic, and cultural proximity of Ukraine to the province, the development of employment opportunities, and the availability of official support for migrants, including projects to promote integration.

5. The peculiarities of Ukrainian migrants' employment in Poland

5.1. Current trends in issuing employment permits to Ukrainians in Poland

The analysis of the employment of Ukrainian labour migrants in Poland should be considered in the context of how such documents as work permits, seasonal work permits, and employer declarations might be obtained.

One of the options for the official employment of foreigners in Poland is a work permit. Work permits in Poland are issued by the local authorities at the place of residence of the employer or the registered office of the company. In Polish practice, work permits for foreigners can be of five types: Type A – a foreigner performs work on the basis of an employment contract with an employer residing or staying in Poland. Type B – a foreigner works for a Polish company and as part of his/her duties stays in Poland for a period of more than 6 months a year. Type C – a foreigner is sent to a branch of a foreign employer in Poland for a period longer than 30 days. Type D – a foreigner works for a foreign employer that performs no organised activities in Poland and is delegated to the territory of Poland for the implementation of certain temporary assignments. Type E – a foreigner works for a foreign employer and is sent to the territory of Poland for a period longer than 30 days in six months, for purposes other than those specified in the other permit types (Mialova 2017).

The introduction of a visa-free regime with the European Union has made it easier for Ukrainians to work in Poland. One can enter Poland with a biometric passport and then apply for a work permit, as Poland is one of the few EU countries that offer a work permit on the basis of a visa-free regime. In fact, EU member states have the right to allow such a possibility internally, because the visa-free agreement itself does not provide for such a procedure (Tokariuk 2019).

It is worth noting that on 4 January 2022, several changes were made to Polish legislation that simplify the conditions for labour migration. For Ukrainian migrants, this means the possibility of obtaining a work permit in Poland for a period of up to 2 years, issued on the basis of a seasonal work permit and the employer's statement of the intention to employ a foreigner (Yakovlieva 2022).

Until 2020, a dynamic increase in the number of issued permits was observed (see Fig. 1). It should be understood that the intensification of obtaining work permits in Poland by Ukrainians was to a large extent connected with the beginning of Russian armed aggression against Ukraine. In 2020, the COVID-19 pandemic caused a decline in the issuance of permits. The largest number of permits within the analysed period was issued in 2019 – 330,495 permits.



Figure 1. Issuance of work permits to Ukrainians in Poland (2014–21)

Source: Labour Market Department of Ministry of Family and Social Policy in Poland.

Analysing the situation with the employment of Ukrainians in the Warmia-Masuria province, it is worth considering the number of permits issued by the provincial government to citizens of Ukraine. Since the largest number of permits was issued to Ukrainians at the national level in 2019, and there was a decline in 2020, it makes sense to choose these two years for the sample. In addition, we consider it important to add a gender aspect to the study.

Table 1. Issuance of work permits to citizens of Ukraine in the Warmia-Masuria province (2019–2020)

Year of issuance of the permit	For women	For men	Total
2019	2,368	4,965	7,333
2020	1,561	3,306	4,867

Source: Labour Office of the Warmia-Masuria province.

As can be seen from Table 1, more permits were issued to men – 35% more permits than to women in 2019 and 36% more permits than in 2020. It is also worth noting the downward trend in the issuance of work permits to Ukrainians in the province in 2020, when 33% fewer contracts were issued than in the previous year. However, these dynamics can be explained by the coronavirus pandemic, which at that time had a strong global impact on public life and, in particular, employment opportunities and conditions. In this context, it should also be noted that according to the Labour Office of the Warmia-Masuria province in 2019–2020, Ukrainians as a nationality received the largest number of work permits. For comparison, in 2019 the second largest number was granted to citizens of Belarus, who received 564 permits, which is approximately one-eighth the number of permits received by Ukrainians.

An important aspect of the modern labour migration of Ukrainians to Poland is the demand for highly qualified Ukrainian workers in various spheres of public life. That is, Ukrainians can work not only as construction or agricultural labourers, but also as, for example, office managers or IT specialists. Polish authorities often listen to employers' requests to facilitate the employment of Ukrainian workers (Tokariuk 2019).

Ukrainians who receive work permits in the Warmia-Masuria province choose different fields of activity and groups of professions. Table 2 presents the variability of Polish proposals in the field of activity for foreigners in 2020 (see Table 2).

Analysing the data from Table 2, it can be concluded that in 2020 most permits were issued to Ukrainians in the processing industry, a total of 1,277, while the areas of public administration and national security, financial and insurance activities, organisations and extraterritorial teams were not represented by Ukrainians with official work permits.

Table 2. Polish offers of work permits for foreigners in 2020 by sphere of activity

Spheres of activity	Number of permits issued	Number of permits issued to Ukrainians
Farming, forestry, hunting, fishing	52	33
Mining and extraction	3	3
Processing industry	2,013	1,277
Production and supply of electricity, gas, steam, hot water, and air conditioning	2	2
Water delivery; wastewater management and reclamation	1	1
Construction	1,352	1,019
Wholesale and retail trade; repair of motor transport	187	167
Transport and warehouse management	1,259	855
Accommodation and catering	247	51
Information and communication	8	7
Financial and insurance activities	0	0
Real estate services	29	0
Professional, scientific, and technical activities	265	203
Activities in the field of administrative and support services	1,315	1,087
Public administration and national security; compulsory social welfare	0	0
Education	4	4
Healthcare and Social Care	16	10
Activities related to culture, entertainment and recreation	27	15
Other services	119	112
Households with hired employees; households that produce goods and provide services for their own needs	13	13
Organizations and extraterritorial teams	0	0

Source: Labour Office of the Warmia-Masuria province.

In terms of selected professions, such professions as artisan and contractor predominated – at 37% and 35%, respectively (see Fig. 2). It is important that in 2020, only 5 Ukrainians here received a permit to work in public authorities or to hold positions in management structures, which is not even 1% of the total number of permits.

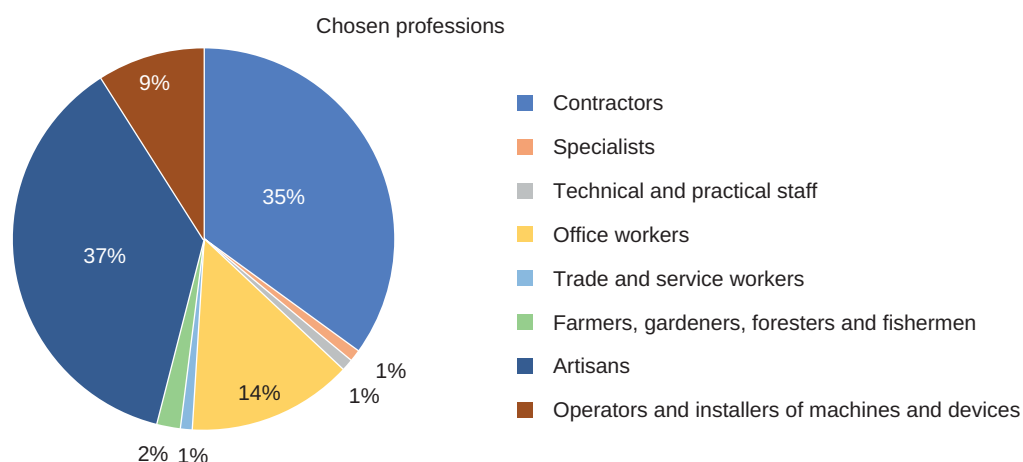


Figure 2. Professions chosen by Ukrainians with work permits in 2020

Source: Labour Office of the Warmia-Masuria province.

In 2020, most permits were issued to Ukrainians in the Warmia-Masuria province for a period of more than two years – 2,695 permits – with only 10 permits being issued for periods up to three months (see Fig. 3).

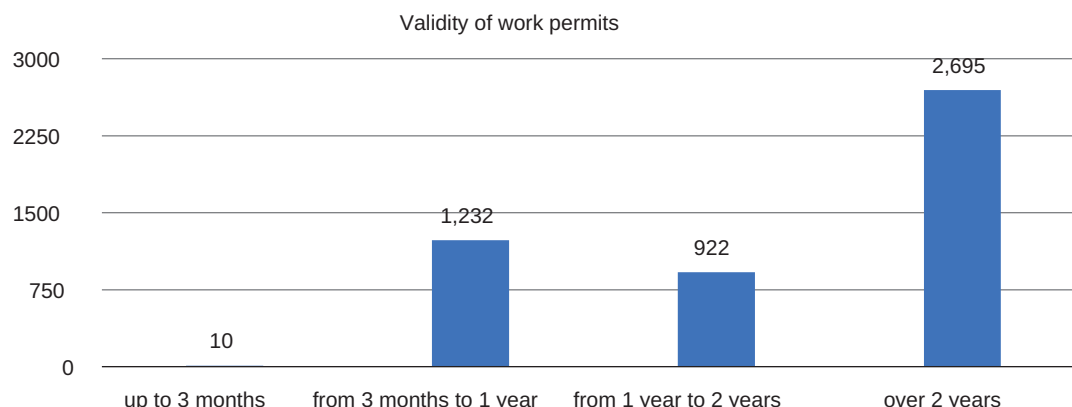


Figure 3. Validity of work permits of citizens of Ukraine in the Warmia-Masuria province in 2020

Source: Labour Office of the Warmia-Masuria province.

5.2. Seasonal work permits for citizens of Ukraine in Poland

Another opportunity for employment of Ukrainians in Poland is provided by obtaining a seasonal work permit. This document is issued on the basis of an application by the entity that entrusts work to a foreigner. A seasonal work permit may be issued for no more than nine months in a calendar year. To apply for a seasonal work permit, the employer applies to the district employment service. While waiting for an extension of the seasonal work permit, a foreigner can work for the entire waiting period with the same employer, but only for up to 30 days if he/she wants to work for a new employer (Adamczyk et al. 2022).

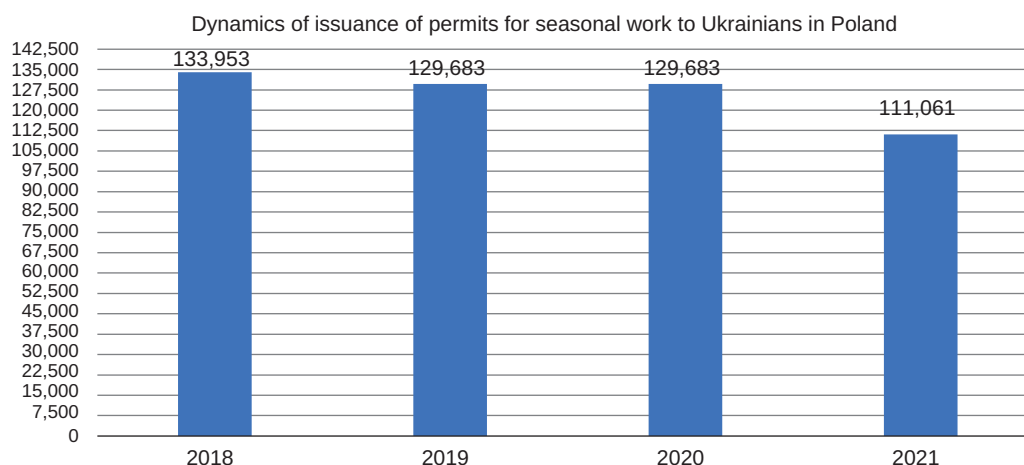


Figure 4. Seasonal work for Ukrainian citizens in Poland (2018–2021)

Source: Labour Market Department of Ministry of Family and Social Policy in Poland.

The period 2018–21 shows a downward trend in the issuing of seasonal work permits (see Fig. 4). However, it should be noted that despite the challenges associated with the coronavirus pandemic, the number of issued seasonal work permits remained at an average level. Concurrent with the end of the period of intensive seasonal work at the end of May 2020, Poland became aware of a labour shortage, and accordingly, the demand for foreign workers has recovered.

The trend towards a decrease in the number seasonal work permits issued in the Warmia-Masuria province from 2019 to 2021 reflected the situation in the country as a whole.

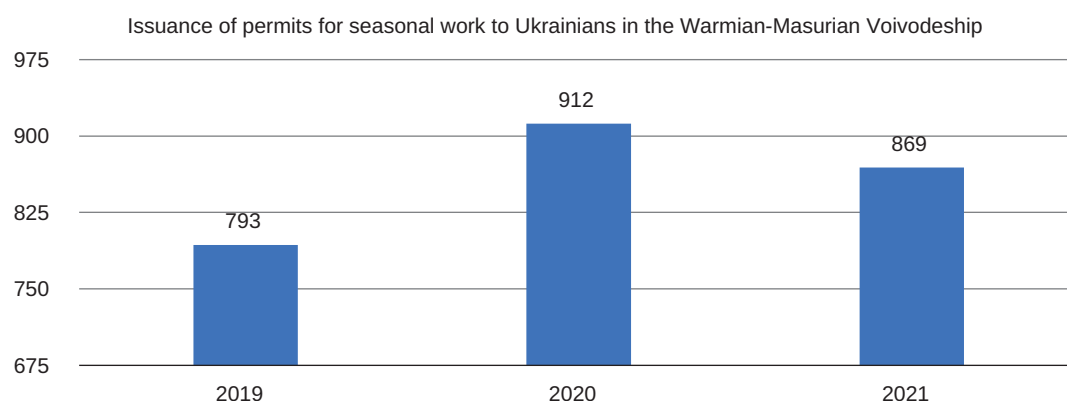


Figure 5. Seasonal work permits for citizens of Ukraine in the Warmia-Masuria province (2019–2021)

Source: Labour Office of the Warmia-Masuria province.

As can be seen in Figure 5, the year 2020 saw an increase in the number of permits issued to Ukrainians for seasonal work compared to 2019, with a decline in the following year. In the peak year 2020, 174 more permits were issued to women than to men. It should be emphasised that the total number of seasonal work permits issued in the Warmia-Masuria province in 2020 was 948 permits, 912 of which were obtained by Ukrainians. Seasonal work permits issued to Ukrainians in 2020 covered two areas of activity: the provision of accommodation and food services at 13.8%, with farming, forestry, hunting, and fishing accounting for the remaining 86.2%.

5.3. Issuing employer declarations to Ukrainians in Poland

In addition to permanent and seasonal work permits, migrants looking for employment in Poland can also take advantage of the opportunity to obtain an employer declaration. If the employer wants to provide a job to a foreigner in a simplified mode, he/she can submit a declaration to the regional labour service. Under the terms of the declaration, the term of employment of a foreigner cannot exceed 24 months, and work for a foreigner does not include seasonal work that requires a permit. An important advantage for the employee is that if the employer wishes to continue working with a foreigner after the expiration of the declaration, he/she can apply for a simplified work permit that does not entail a labour market check (Deklaratsiui 2021).



Figure 6. Employer declarations for citizens of Ukraine in Poland (2018–2021)

Source: Labour Market Department of the Ministry of Family and Social Policy in Poland.

The year 2020 saw a decline in the issuance of employer declarations to Ukrainians in Poland – 1,329,491 declarations compared to 1,475,923 declarations in 2019 [see Fig. 6]. This situation is largely connected with the spread of COVID-19, and an increase in the number of issued declarations is observed in 2021 – 305,613 more declarations than in 2020.



Figure 7. Employer declarations for citizens of Ukraine in the Warmia-Masuria province (2019–2021)

Source: Labour Market Department of the Ministry of Family and Social Policy in Poland.

By contrast, at the level of the Warmia-Masuria province, a sharp increase in the number of issued declarations can be observed from 2018 [see Fig. 7]. The largest number was issued in 2019 – 57,035 employer declarations. However, other provinces issued a greater number of such declarations than Warmia-Masuria (Boiko 2022).

5.4. Employment of Ukrainians in the Warmia-Masuria province through the Employment Centre and employment agencies

The Employment Centre also plays an important role in the employment of Ukrainians in the Warmia-Masuria province. According to official data, in 2019, the top five countries in terms of the number of employed people in the Warmia-Masuria province through the Employment Centre were Poland, Ukraine, Georgia, Belarus, Moldova, and Russia [see Fig. 8].

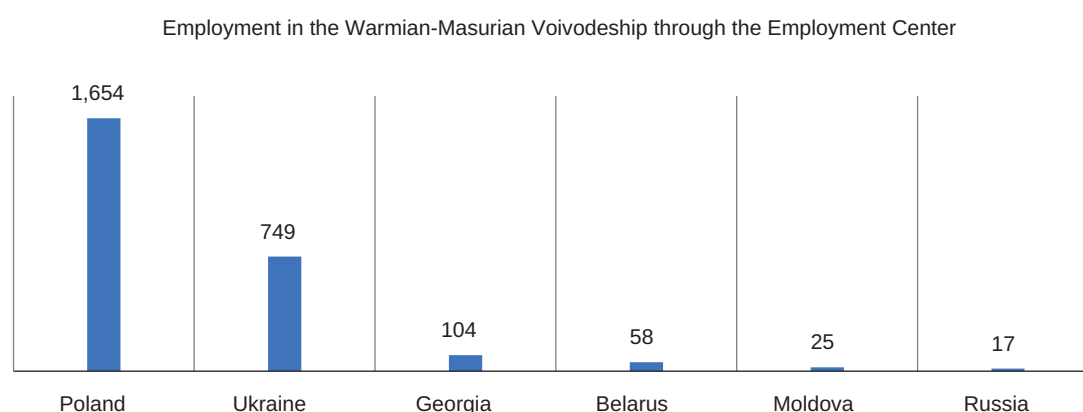


Figure 8. Employment in the Warmia-Masuria province gained through the Employment Centre in 2020

Source: Information on the activities of employment agencies provided by the Marshal of the Warmia-Masuria province.

Temporary employment in the Warmia-Masuria province is also interesting to analyse. In 2019, the employment authorities of the province concluded civil law agreements with representatives from 12 foreign countries. Interestingly, the number of Poles hired temporarily was significantly lower than the number of Ukrainians – 1,302 Poles and 2,444 Ukrainians (see Fig. 9).

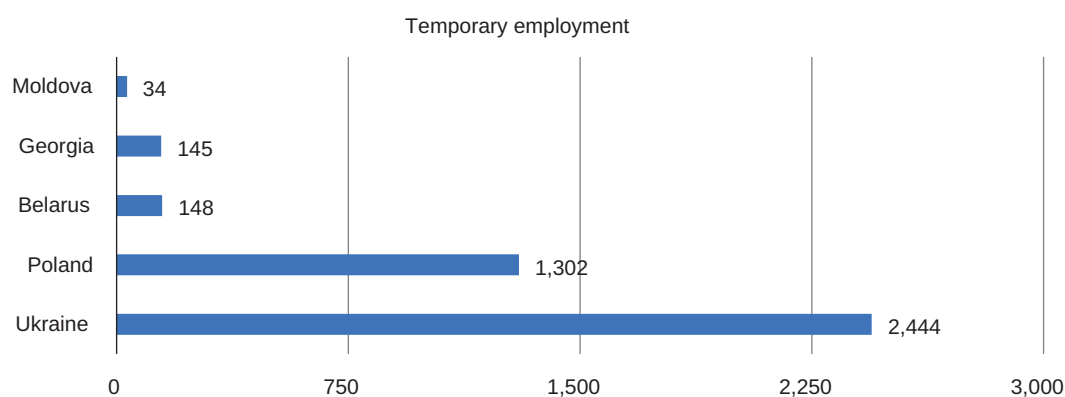


Figure 9. Temporary employment in the Warmia-Masuria province in 2019

Source: Information on the activities of employment agencies provided by the Marshal of the Warmia-Masuria province.

In addition, the Employment Centre of the Warmia-Masuria province analysed 418 contracts for temporary employment of Ukrainians in 2019 to determine which professions were most represented (see Table 3).

Table 3. Professions chosen by those temporary employed in Warmia-Masuria province in 2019

Chosen profession	Number of Ukrainians
Adjuster and operator of metalworking machines	1
Plasterer	1
Waiter	1
Welder	1
Installer of building structures	2
Contractor of construction works	3
Kitchen helper	3
Machine operator	4
Washing machine operator	5
Administration and development specialist	7
Locksmith	7
Office and hotel assistant and cleaner	9
Storekeeper	13
Operator of machines for the plastic production	28
Worker in another field	123
Butcher and fish processor	210

Source: Labour Office of the Warmia-Masuria province.

Among the employment agencies that helped Ukrainians the most to get a job in the province in 2019 [see Fig. 10], the Ukrainian Services agency should be singled out. In 2019, this agency hired 1,219 Ukrainians for temporary work, which amounts to nearly half of the 2,444 Ukrainians temporarily employed through employment agencies.

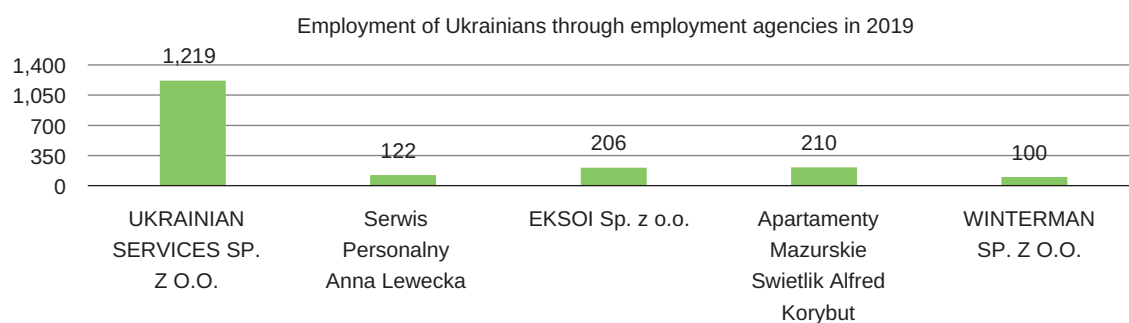


Figure 10. Employment of Ukrainians in the Warmia-Masuria province through employment agencies in 2019

Source: Information on the activities of employment agencies provided by the Marshal of the Warmia-Masuria province.

5.5. Legal status of Ukrainian migrants in the Warmia-Masuria province

During the first 10 months of 2020, 151 inspections were conducted on the legality of employment of foreigners in the Warmia-Masuria province. The local department of the border service reviewed the status of more than 4,200 workers from abroad and found more than a thousand people working illegally. 90% of detected illegal workers were Ukrainians. However, it should be understood that such a high figure reflects the large proportion of workers from Ukraine in the province. Foreigners who work informally in Poland also include citizens of Azerbaijan, Bangladesh, Belarus, Georgia, India, Indonesia, Moldova, Mongolia, Nepal, and Uzbekistan (Sered 2020).

From January to the beginning of June 2021, the legality of employment of 954 foreigners, mostly Ukrainians and Belarusians, was checked in the Warmia-Masuria province, and 91 violations were revealed. A striking case was that of an employer who is an entrepreneur in the manufacturing sector in Elk County and illegally employed 15 foreigners, including four Ukrainians (U.P.M.P 2021).

The most frequent centres of illegal labour in the Warmia-Masuria province are such counties as Działdowo, Iława, Kętrzyn, Nidzica, and Olecko. Polish companies that have headquarters in the country's largest cities send migrants to the region for illegal work. According to employees of the State Traffic Inspection, workers, most of whom are Ukrainians, worked illegally, mainly in industrial enterprises, as well as in the fields of construction and trade (Sered 2020).

In addition to employment offences, Ukrainian labour migrants commit other crimes, which, although not critical, destabilise the situation in Poland itself and negatively affect the international image of Ukraine. In general, the legal status of foreigners in Poland is regulated by the Law of 12 December 2003, which lays out the rules and conditions of entry of foreigners into the territory of the state, transit through its territory, their stay and departure from Poland, and the competencies of the authorities in these cases. According to Article 289, the police have the right to control the legality of the stay of foreigners in Poland in case of reasonable suspicion, violation of public order, or committing a crime (PolUkr 2014).

According to A. Jurkun, press secretary for the municipal police headquarters in Olsztyn, the coronavirus pandemic led to the beginning of changes to legislation that provide for special solutions for foreigners in Poland. The changes concern aspects of extending a foreigner's stay, validity of work, or validity of a residence card or temporary identity card.

In addition, A. Yurkun has noted that violations of the law by foreigners in Poland tend to be incidental. Analysis of statistics for 2020 shows that the share of crimes committed in Olsztyn and Olsztyn County by foreigners is insignificant. A total of 2,134 offences were detected within the municipal police headquarters in Olsztyn, only 35 of which were committed by foreigners, which accounts for a mere 1.6% of the total.

The largest number of offenders who are citizens of other states was recorded in 2018 – 44 people [see Table 4]. Despite the fact that in 2019 and 2020 there were fewer violations by foreigners, the general upward trend in the number of offences committed by foreigners in Poland should be noted with reference to 2015 and 2016 levels.

Table 4. Offences committed by foreigners in Olsztyn County in 2020

Year	Number of foreign offenders
2015	15
2016	12
2017	18
2018	44
2019	33
2020	35

Source: Author's tabulation based on information provided by the Municipal Police Headquarters in Olsztyn.

The means by which Ukrainian labour migrants secure employment in Poland are a work permit, a seasonal work permit, and an employer declaration. According to recent statistics, Ukrainians have received the most work permits in the Warmia-Masuria province. There were also the largest number of Ukrainian temporary workers employed through the Employment Centre. As for the diversity of professions chosen by Ukrainians, the traditional attitude that Ukrainians can work in Poland only for those jobs that Poles themselves do not want to do is no longer relevant. Labour migrants from Ukraine not only work as employees in various fields, but can also run their own businesses. However, a significant number of labour migrants from Ukraine are working illegally in Poland.

6. Modern challenges of labour migration from Ukraine to the Warmia-Masuria province

Despite a number of advantages of Ukrainian labour migration to Poland and in particular, to the Warmia-Masuria province, Ukrainian labour migrants face various challenges and problems, often due to discriminatory treatment based on nationality.

To assess the current integration policy of Poland, we consider it appropriate to use the Integration Policy Index (MIPEX), which is a consortium of European organisations led by the Migration Policy Group and covers 52 countries. The MIPEX index is multidimensional, as it analyses integration policy in eight directions: labour market mobility; family reunification; education; long-term stay; participation in the political life of the country; obtaining citizenship; protection against discrimination, and health care.

Non-EU citizens have faced a number of obstacles in Poland. Thus, according to MIPEX for 2020, the country's integration policy is estimated at 40 out of 100 points. Poland's approach to the integration of migrants MIPEX classifies as "equality on paper". As in most Central and Eastern European countries, immigrants in Poland enjoy some basic rights but do not have equal opportunities. Official Warsaw still needs to invest in equal rights and equal opportunities for immigrants, which are below the average in Poland compared to most MIPEX countries (MIPEX 2020).

Poland's current policy encourages the public to perceive immigrants not as equals but as strangers. Immigrants in Poland face many obstacles in several areas, mainly in the labour market, education, health care, and political participation. Mobility in the Polish labour market is assessed as partially unfavourable, as foreigners can get a job here and start a business, but they do not have access to the support and benefits available to Polish citizens. Under such a restrictive policy, the public experiences a higher level of xenophobia and a lower level of social trust, which leads to fewer contacts and positive experiences with immigrants. Poland's integration policy is rated below the EU average (MIPEX 2020).

When considering the manifestations of discriminatory treatment of Ukrainian labour migrants by Poland, it is necessary to investigate the problem of education. According to residents of Górowo Iławeckie, a city in Warmia-Masuria where a Ukrainian school operates, there is a problem with the education of the children of labour migrants. After the beginning of the war in Ukraine, the flow of labour migrants began to increase significantly. As a result, from 2015 to 2021, the number of children of labour migrants and internally displaced persons seeking to study in Ukrainian schools

in Poland increased. In general, these institutions contributed to the education of such children, and the payment for accommodation in the dormitories was optimal for all. It should be noted that in Ukrainian schools in Poland, it is mandatory to study Ukrainian language, literature, and history.

However, problems began to arise after the adoption of a law on the education of foreigners in Poland in 2021, according to which school principals must treat students from national minorities as Polish citizens. The Ministry of Education of Poland calculates subventions for the education of students from national minorities, and principals, in turn, provide information on the number of such students. However, the government's new decision that students from Ukraine should be treated as foreigners, not as representatives of national minority, has been paradoxical, as it led to the situation that they cannot study in Ukrainian schools in Poland and, consequently, cannot study their native language, literature, and history. First is the matter of discrimination against Ukrainians on the basis of nationality. Complicating the matter are demands from the Polish Ministry of Education for the return of previous subventions allocated for the education of Ukrainians in schools.

Prior to the adoption of the new law, the school only had a positive impact on the development and future of children of Ukrainian labour migrants. Parents had an economic motive to give seek a good education for their children. Currently, the situation in schools remains controversial, as the principal has no right to ask parents whether they want their children to study as minority citizens or as foreigners. This problem is thought to have arisen with the appointment of the new Minister of Education, a former provincial governor in Lublin who was not very sympathetic to Ukrainians. Conversely, students of Polish schools in Ukraine do not suffer the same restrictions to study native language and history as students of Ukrainian schools in Poland have.

An unpleasant challenge for Ukrainians in Poland was the spread of the thesis that infectious diseases come to Poland from Ukraine. In 2018, 359 cases of measles were recorded in Poland. At the beginning of 2018, the first outbreak of measles (6 people) took place at the factory in the Warmia-Masuria province, it was revealed that the first two people to fall ill were natives of Ukraine. In this context, the information portal "Sputnik Polska" noted the statements of local officials and ordinary residents. The first believed that Ukrainians were responsible for the situation, while ordinary residents called for the deportation of sick Ukrainians back to their country of origin. It was also emphasised that the treatment of sick Ukrainians should not be provided at the expense of the Polish public purse. In addition, "Sputnik Polska" journalists inferred that the entire European continent is at risk of diphtheria brought by workers from Ukraine (Lubicz Miszewski 2018).

Ukrainian workers sometimes face poor working conditions at factories in Warmia-Masuria. For example, in 2017, more than thirty Ukrainians were held in inhumane conditions and forced to work in food processing factories in Nowe Miasto County. Border guards observing these factories saw that they were in operation, but suspiciously, no workers were leaving them. During the inspection, it was determined that the Ukrainians were there in spartan conditions. It should be noted that among the 48 identified, 35 did not have work permits or contracts, and two were staying in Poland illegally (Monitor Info 2017).

One of the leaders of the Ukrainian minority in Warmia-Masuria shared stories about the problems that often arise for Ukrainian labour migrants on their way to the province. First of all, there are cases when employers refuse to pay Ukrainians who work illegally. Our recounts being approached by men who worked illegally on the roads. Their employer had not paid their salary for six months, later promising to pay when they finished work and returned home. The employer failed to keep his promise, leaving the 21 people with a total debt of approximately 26 thousand euros. The men turned to our respondent for help, who, in turn, found a lawyer for them. In an unprecedented decision, the court sided with the labourers, ordering the owner of the enterprise to forfeit all the money, despite the fact that the workers did not have official employment. However, having transferred all the property to close relatives, the employer did not have money that could be collected, and it took years before the issue was resolved.

The leader of the Ukrainian minority in the province considers it a challenge for labour migrants to go through the lengthy bureaucratic procedure of obtaining official employment and a work permit. According to the head of the Olsztyn branch of the Association of Ukrainians in Poland, the work of Ukrainians is not properly valued, and Ukrainians themselves agree to lower wages than a Polish citizen would receive. Unfortunately, our respondent also has emphasized that during his

practice with Ukrainian labour migrants, accidents have occurred, some of them fatal. There are also cases of blackmail and threats from the Polish population. For example, after a fight in which a Ukrainian took part, he was threatened with reprisals against his family if he testified to the police.

The COVID-19 pandemic has also caused significant complications for labour migrants. These problems were widespread and not limited to the Warmia-Masuria province. First of all, Ukrainians faced the problem of sudden job loss. Therefore, those who had work permits but lost their jobs had to obtain another work permit. Due to the spread of the coronavirus infection, the number of applications for permits increased, as did the waiting time to receive them, and many migrants have, for a considerable time, lost the opportunity to work officially (Cope et al. 2021).

The processing of requests for a Polish residence permit took even longer. The declaration of a public health emergency on 16 March 2021 caused the province offices to suspend the personal reception of applicants, thus making it virtually impossible for people to access the offices. Although the offices were to resume receiving clients by the end of May 2021, some of them did not resume their work until the end of July. In addition, a significant complication for labour migrants was the requirement of timely submission of certain additional documents, which were difficult to obtain due to the work schedule of the institutions that issue them (Cope et al. 2021).

Due to the epidemic, changes in the legislation came into force on 2 May 2021, providing special solutions for foreigners staying in Poland. Regulatory changes gave those seeking to stay in Poland, as well as those prevented from leaving by measures against the spread of infection, the opportunity to stay legally in Poland.

Terms for the following activities were extended until 30 days after the lifting of the epidemic measures:

- the legal stay of foreigners in Poland, if such terms expired during the epidemic period;
- such documents as 'karta pobytu', temporary identity cards issued to foreigners, and "consent to tolerant stay", as well as documents issued for a specific period of time to EU citizens;
- submission of documents for legalisation of stay;
- validity of previously issued work permits, including seasonal permits, as well as applications from employers for employment of a foreigner (Office for Foreigners 2020).

New provisions in the law allowed employers to change working conditions, in particular to reduce working hours or wages or send an employee to a remote work regime (Office for Foreigners 2020). Although such changes should have helped to reach a compromise between the worker and the employer and maintain safe working conditions, this often led to the employer's abuse of the opportunity to change working conditions by significantly worsening them.

The pandemic had a particularly negative effect on the work of female labour migrants. First and foremost, having lost their jobs, Ukrainian women were left without income and social security. It is important that most migrant women are the main breadwinners in the family and support other family members by sending money transfers to Ukraine, which became impossible after the loss of their jobs. In addition, migrant women were often not paid their final wages, and landlords did not make concessions (Cope et al. 2021).

Therefore, the labour migration of Ukrainians to the Warmia-Masuria province, as well as to Poland in general, cannot be interpreted as an exclusively positive process. The presence of discriminatory treatment, cases of severe working conditions, and the outbreak of the coronavirus pandemic contribute negatively to the general picture of the employment situation of Ukrainians in Warmia-Masuria.

7. Conclusions

Ukrainian labour migration to the Warmia-Masuria province presents a mixed picture. Low wages and high unemployment in Ukraine, on the one hand, and the demand for labour and attractive working conditions in neighbouring Poland, on the other, are key drivers of Ukrainian labour migration. It should be understood that close ties between countries, geographical location, and a certain similarity between languages and cultures contribute to the choice of Ukrainian workers' place of migration.

The Warmia-Masuria province, in turn, attracts Ukrainians both with the presence of enterprises ready to employ Ukrainians and with the large Ukrainian minority in the region. Ukrainians make up the largest share of foreigners working in the Warmia-Masuria province.

Indeed, Ukraine is leading in terms of issued work permits in Poland. In 2016, among foreigners, 82.8% of permits were issued to Ukrainians; by 2021, this indicator had decreased significantly, but remained at the level of 68.5%. The Warmia-Masuria province issued the most permanent and seasonal work permits in 2019 and 2020 to Ukrainians, and, Ukrainians also made up the largest number of temporary employees to find work through the Employment Centre. While men from Ukraine received more work permits than Ukrainian women, the situation with seasonal work permits is reversed.

Despite the presence of a significant number of labour migrants from Ukraine in Warmia-Masuria, the fact remains that the majority of Ukrainian migrants choose other provinces for employment. This is confirmed by statistics on the issuance of work permits. For example, in 2021, the most permits for seasonal work were issued to Ukrainians in the Masovia province – 47% of the total amount, while in the Warmia-Masuria province – only 0.78%. The largest number of general work permits for Ukrainians was also issued in the Masovia province – 17%, at the same time the number of issued work permits in Warmia-Masuria was 1.1 % (Employment 2022).

The nature of Ukrainian employment in Poland is changing dynamically, as Ukrainians choose new professions, contribute to the most developed spheres of Polish society, and run their own businesses. However, competition for employment remains an important factor. The bureaucracy surrounding the issue of work permits or other relevant documents for a potential employee is frequently cited as grounds for refusing employment. In this case, it is easier for the employer to hire a Pole who does not need an additional work permit. However, such actions can also be considered discriminatory, as the selection was not based on the skills and competence of the applicant (Bachanski 2022).

In 2020, inspections for the legality of employment of foreigners in the Warmia-Masuria province revealed that 90% of informally employed workers were Ukrainians. Other types of offences committed by Ukrainians in the province also come into play. These can have a negative effect on Ukraine's image abroad, which is formed in part from an assessment of the behaviour of its citizens.

Ukraine's relations with the Warmia-Masuria province provide many prospects for cooperation, which may further positively affect the working conditions of Ukrainian migrants in the province. However, the prospects for improving the employment of Ukrainians in Warmia-Masuria can not be interpreted unambiguously for Ukraine, as migration is not only a "brain drain", but the non-return of citizens to their home country changes the demographic situation, involves family separation, and heightens socio-economic tensions.

Important trends in the labour migration of foreigners to Poland can be traced on the basis of a survey of 332 out of 361 district labour services in Poland. 70% of respondents consider the impact of foreigners on the labour market to be quite positive, 27.7% of respondents consider it neutral, and 2.2% consider it rather negative.

Only 0.6% of respondents considered the assignment of work to foreigners to lead to the high-intensity displacement of Polish workers from the labour market, while 24.6% assess the intensity as medium or low, and 74.8% did not observe such a phenomenon. Asked whether the main motive for employers to hire foreigners is the opportunity to offer worse working conditions that domestic workers would not accept, 36.8% of respondents rather agreed, 35.7% rather disagreed; 7.2% completely agreed with this statement, and 7.9% of departments surveyed did not agree at all.

This leads to the conclusion that migrants in Poland have a mostly positive impact on the local labour market, and that issuing work permits to foreigners has almost no effect on the displacement of Polish workers from the labour market. However, Polish employers often use foreigners as cheap labour (Employment 2022).

Taking into account the consequences, both positive and negative, of the labour migration of Ukrainians to Poland, and in particular to the Warmia-Masuria province, it is worth noting optimistic, pessimistic, and realistic assessments of the potential development of the situation. An optimistic scenario predicts the stabilisation of the Ukrainian economy and the improvement of the labour situation in Poland, which will reduce the volume of labour migration from Ukraine. The pessimistic

scenario includes significant weakening of Ukraine's economic development, which will tend to increase migration and make seasonal migration more long-term. Before the start of the full-scale military incursion of the Russian Federation into Ukraine, a realistic scenario predicted that economic indicators in Ukraine would show no significant change. However, evaluating the current situation with decline in the domestic economy by a third and increase in migration flows, it can be considered that the pessimistic scenario has come true, mostly due to the full-scale war in Ukraine.

References

- Adamczyk, A., Trojanowska-Strzeboszewska, M., Kowalewska, D., and Bartłomiejski, R., 2022, 'Ukrainian migrants in Poland and the role of an employer as the channel of information during the COVID-19 pandemic', *Sustainability*, 14(9), 5338. <https://doi.org/10.3390/su14095338>
- Astramowicz-Leyk, T., and Turchyn, Y., 2022, 'Institutional and legal mechanisms for the protection of the rights of the Ukrainian minority in the Warmia and Mazury region', *Przegląd Strategiczny*, 14, 393–416 Available at: <https://pressto.amu.edu.pl/index.php/ps/article/view/30869/27269> (accessed: 15.03.2022).
- Boiko, I., 2022, 'Employment of Ukrainian refugees in Poland: how many and where they found work', *UNIAN*.
- Bachanski, C., 2022, *Portret imigranta w Polsce*, Warsaw Enterprise Institute. Available at: <https://wei.org.pl/wp-content/uploads/2022/02/Portret-imigranta-w-Polsce.pdf> (accessed: 15.02.2022).
- Brunarska, Z., Kindler, M., Szulecka, M., and Toruńczyk-Ruiz, S., 2016, 'Ukrainian migration to Poland: A 'local' mobility?', in: O. Fedyuk, M. Kindler (eds.), *Ukrainian Migration to the European Union*, Cham: Springer. Available at: <https://files.core.ac.uk/pdf/2612/81859250.pdf> (accessed: 13.02.2022).
- Cope, B., Keryk, M., and Kyliushyk I., 2021, *Sytuacja ukraińskich migrantek w Polsce w czasie COVID-19*, Warszawa: Fundacja 'Nasz Wybór'.
- Deklaratsiiu pro doruchennia vykonannia roboty, 2021, Lconsult. Available at: <https://lconsult.com.pl/ua/deklaratsiyu-pro-doruchennya-vykonannya-roboty/> (accessed: 15.02.2022).
- Employment of foreigners in Poland, 2022, Vortal of Public Employment Services, February 10th, 2022. Available at: <https://psz.praca.gov.pl/rynek-pracy/statystyki-i-analizy/zatrudnianie-cudzoziemcow-w-polsce> (accessed: 13.02.2022).
- Epydemyia koronavyrusa – spetsyalnye reshenyia dlia ynostrantsev, 2020, Office for Foreigners. Available at: <https://migrant.poznan.uw.gov.pl/ru/komunikaty/epidemiya-koronavirusa-specialnye-resheniya-dlya-inostrancev> (accessed: 15.02.2022).
- Fenik, K., 2019, 'Prychyny ta naslidky trudovoi mihratsii naselennia Ukrainy', Available at: http://www.rusnauka.com/18_NiIN_2007/Economics/22487.doc.htm (accessed: 15.02.2022).
- Jaskułowski, K., and Pawlak, M., 2016, 'Główne teorie migracji międzynarodowych: przegląd, krytyka, perspektywy', *Sprawy Narodowościowe. Seria Nowa*, 48, 128–146. Available at: <https://ispan.waw.pl/journals/index.php/sn/article/view/sn.2016.008> (accessed: 15.02.2022).
- Karpenko, A., Zasorina, H., 2018, 'Modern realities of Ukrainians labor migration to Poland', *Central Ukrainian Scientific Bulletin*. [https://doi.org/10.32515/2663-1636.2018.1\(34\).106-114](https://doi.org/10.32515/2663-1636.2018.1(34).106-114)
- Kryzhanivska, T., 2023, 'Employment abroad: prospects and chances of Ukrainian refugees', *Ukrainska Pravda*. Available at: <https://life.pravda.com.ua/society/2023/01/12/252252/> (accessed: 14.02.2022).
- Levytska, O., 2014, 'Suchasni tendentsii ta naslidky ukraïnskoi trudovoi mihratsii do Polshchi'. Available at: <https://apostir.org.ua/wp-content/uploads/%D0%97%D0%B1%D1%96%D1%80%D0%BD%D0%B8%D0%BA.pdf#page=236> (accessed: 13.02.2022).
- Libanova, E., 2018, 'Zovnishni trudovi mihratsii ukraïntsiv: masshtaby, prychyny, naslidky', *Demohrafiia ta Sotsialna Ekonomika*, 2, 11–26. Available at: http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgi-irbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=dse_2018_2_3 (accessed: 14.02.2022).
- Lubicz Miszewski, M., 2018, *Imigranci z Ukrainy w Polsce: Potrzeby i oczekiwania, reakcje społeczne*, Wrocław: Wydawnictwo AWL im. gen. T. Kościuszki.
- Malynovska, O., 2011, *Trudova mihratsiia: sotsialni naslidky ta shliakhy reahuvannia*, Kyiv: NISD. Available at: https://niss.gov.ua/sites/default/files/2011-11/Malin_migraziya-dace3.pdf (accessed: 13.02.2022).

- Mialova, M., 2017, 'Yak otrymaty dozvil na pratsiu v Polshchi', *Polsha Segodne*, November 2nd, 2017. Available at: <http://poland2day.com/ru/kak-poluchit-razreshenie-na-rabotu-v-polshe-zezwolenie-na-prace/> (accessed: 14.02.2022).
- Migrant integration policy index 2020, Poland 2019, *MIPEX*. Available at: <https://www.mipex.eu/poland> (accessed: 15.02.2022).
- 'Na Varmii ta Mazurakh vyjavleno 91 porushennia pratsevashtuvannia inozemtsiv', 2021, *U.P.M.P.*, June 11th, 2021. Available at: <https://upmp.news/ua-in-polish/na-varmiyi-ta-mazurah-vyjavleno-91-porushennia-pratsevashtuvannia-inozemtsiv/> (accessed: 12.02.2022).
- Nahorniak, T., and Pachos, Y., 2018, 'Mihratsiia ukrainsiv do Polshchi yak naslidok derzhavnoi polityky', *Politychne zhyttia*, 3, 27–35. Available at: http://nbuv.gov.ua/UJRN/pollife_2018_3_7 (accessed: 12.02.2022).
- Nosek, K., 2018, *Migracja zarobkowa a poczucie jakości życia rodzin transnarodowych*, Olsztyn: Centrum Badań Społecznych UWM, Towarzystwo Naukowe im. Wojciecha Kętrzyńskiego.
- 'Obywatele Ukrainy w Polsce – raport', 2021, Urząd do Spraw Cudzoziemców, December 14th, 2021. Available at: <https://www.gov.pl/web/udsc/obywatele-ukrainy-w-polsce--raport> (accessed: 13.02.2022).
- Olsztyn, 2005, Lutsk miska rada. Available at: <https://www.lutskrada.gov.ua/pages/olshtyn> (accessed: 15.02.2022).
- Pidtrymka intehratsii mihrantiv v Varminsko-Mazurskomu voievodstvi, 2020, Bezpieczna Przystań. Available at: <https://migranci-warmiamazury.caritas.pl/2020/uk/npo-projekt/> (accessed: 15.02.2022).
- Proiekt 'Systema pidtrymky inozemtsiv, shcho prozhyvaiut u Varminsko-Mazurskomu voievodstvi u sferi sotsialnoi adaptatsii ta intehratsii', 2018, Wojewoda Warmińsko-Mazurski. Available at: <https://migranci-famiołsztyń.pl/uk/> (accessed: 14.02.2022).
- Prokop, M., 2019, *Transkordonna spivpratsia Polshchi ta Ukrainy (kazusy rehionalnogo spivrobotnytstva: Varminsko-Mazurske voievodstvo ta Rivnenska oblast)*, Toruń: Uniwersytet Mikołaja Kopernika. Available at: <https://evnuir.vnu.edu.ua/bitstream/123456789/4925/1/Prokop.pdf> (accessed: 14.02.2022).
- Radchuk, O., 2019, 'Povernennia trudovykh mihrantiv: shcho ne tak robyt derzhava', *Slovo i dilo*, October 18th, 2019. Available at: <https://www.slovoidilo.ua/2019/10/18/kolodka/aleksandr-radchuk/suspilstvo/povernennia-trudovykh-mihrantiv-ne-tak-robyt-derzhava> (accessed: 14.02.2022).
- 'Sered nelehalnykh pratsivnykiv Polshchi perevazhaiut ukrainsi', 2020, *ZN.UA*, October 15th, 2020. Available at: <https://zn.ua/ukr/WORLD/sered-nelehalnykh-pratsivnykiv-u-polshchi-perevazhna-kilkist-ukrajintsiv.html> (accessed: 13.02.2022).
- Shataieva, T., 2018, 'Shcho dlia ukrainsiv oznachaie Polshcha: robota, navchalnyi zaklad chy dim?', *Spider's Web*, October 29th, 2018. Available at: <https://spidersweb.com.ua/чому-українці-їдуть-до-польщі/> (accessed: 12.02.2022).
- Skochynska-Prokopovych, B., and Luchakivska, I., 2018, 'Trudova mihratsiia ukrainsiv u Polshchu: istoriohrafia problem'. *Naukovi zapysky Ternopilskoho natsionalnogo pedahohichnogo universytetu imeni Volodymyra Hnatiuka. Ser. Istorii*. Ternopil.
- Synkovets, N., 2016, 'Analiz osnovnykh teorii mizhnarodnoi mihratsii v suchasnomu ekonomichnomu prostori', *International relations, part "Economic sciences"*. Available at: http://journals.iir.kiev.ua/index.php/ec_n/article/view/2927/2622 (accessed: 15.03.2022).
- The number of foreigners in Poland in April 2021. Data from ZUS, 2021, *Newsy Today*, May 11th, 2021. Available at: https://www.news-ytoday.com/the-number-of-foreigners-in-poland-in-april-2021-data-from-zus/?fbclid=IwAR3rb0_L_CVfZUIRBX3hnloGVnABBuMT9YSxJBLEY9i_6DaXntx4WOxc3Mo (accessed: 13.02.2022).
- Tokariuk, O., 2019, 'Pratseliubni, yevropeitsi, khrystyiany: yak Polshcha zaokhochuie mihratsiiu z Ukrainy', *Hromadske*, June 19th, 2019. Available at: <https://hromadske.ua/posts/pracelyubni-yevropejci-hristiyani-yak-polsha-zaohochuye-migraciyu-z-ukrayini> (accessed: 13.02.2022).
- 'Ukrainska trudova mihratsiia do Polshchi molodshaie', 2019, *UKRINFORM*, December 21 st, 2019. Available at: <https://www.ukrinform.ua/rubric-society/2842744-ukrainska-trudova-migracia-do-polsi-molodsae.html> (accessed: 14.02.2022).
- Verbovyi, M., 2011, 'Doktrynalni zasady mizhnarodnoi trudovoi mihratsii', *Demokratychnie vriaduvannia*, 7. Available at: http://nbuv.gov.ua/UJRN/DeVr_2011_7_9 (accessed: 14.02.2022).
- Yakovlieva, O., 'Sproshchennia trudovoi mihratsii do Polshchi: zminy dlia ukrainsiv u 2022 rotsi', *Vikna*, January 22nd, 2022. Available at: https://vikna.tv/styl-zhyttia/sproshchennia-trudovoyi-migraciyi-do-polshhi-zminy-dlya-ukrayincziv-u-2022-rotsi/?fbclid=IwAR10mRUI-ROBxsQLgoTZI-HotXV0m7UudxTCMHIn8LuIdvldjlp_Og6M-Q (accessed: 15.02.2022).

- Zahorodnia, I., 2021, 'U Polshchi pratsiuie 1,5 mln ukrainsiv, zrostaie kilkist tykh, khto vidkryvaie tam vlasnyi biznes', *TSN*, July 20th, 2021. Available at: <https://tsn.ua/ukrayina/u-polschi-pracyuye-1-5-mln-ukrayinciv-zrostaye-kilkist-tih-hto-vidkrivaye-tam-vlasniy-biznes-1828618.html> (accessed: 14.02.2022).
- Zakon Polshchi 'Pro inozemtsiv', 2014, *PolUkr*. Available at: <http://www.polukr.net/uk/blog/2015/12/zakon-polszczi-pro-inozemciv/> (accessed: 14.02.2022).
- Zbiorcza informacja o działalności agencji zatrudnienia składana przez marszałka województwa, 2020, Voivodeship Marshal. Available at: <https://wupolsztyn.praca.gov.pl/documents/106902/1478388/Zbiorcza%20informacja%20o%20dzia%C5%82alno%C5%9Bci%20agencji%20zatrudnienia%20za%202019%20rok/d9a4e93e-f9ba-4f29-b8b3-03516c65a21e?t=1594295840827> (accessed: 15.02.2022).
- Zhyly ta pratsiuvaly yak raby. 'Ukrainsiv prykhovuvaly v polskykh firmakh', *Monitor Info*, April 6th, 2017. Available at: <https://monitor-press.info/uk/news/2001-zhyly-ta-pratsiuvaly-iak-raby-ukrainsiv-prykho-vuvaly-v-polskykh-firmakh> (accessed: 15.02.2022).
- Zubyk, A., 2022, 'Suchasna trudova mihratsiia naselennia z Ukrainy v Polshchu', *Naukovi zapysky. Ser. Ekonomichna ta sotsialna heohrafiia*. Available at: <http://geography.tnpu.edu.ua/wp-content/uploads/2016/11/015.pdf> (accessed: 15.02.2022).

Modes and Measures of Business Support During Wartime: The Case of the Carpathian Region of Ukraine

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Abstract

This article reveals the geographical distribution, structures, and problematic aspects of business migration to the oblasts of the Carpathian region of Ukraine and abroad. In the context of the Russian–Ukrainian war, the article assesses the risks and threats that internal and international business migration pose to the Ukrainian economic system, economies of the Carpathian region, the internal consumer market, and business entities. Measures to mitigate the threats of business migration to the Carpathian region are offered. The implementation of certain measures will eliminate the identified threats to relocated businesses and minimise the risks to the social and economic development of the Carpathian region and Ukraine as a whole.

Keywords

relocation, war, business, units, Ukraine, region

Introduction

The new challenges and threats created by the Russian–Ukrainian war have destabilised the socioeconomic system of Ukraine, decreased the effectiveness of its economic processes, limited the competitiveness of internal production and economic complexes, and strengthened the adverse conditions of transformations in the field of socioeconomic relations. Creating socioeconomic stabilisation for the oblasts of the Carpathian region of Ukraine is a fundamental prerequisite not only to guarantee the appropriate quality of life of the population but also to minimise the conflict in society, reduce social tensions, and increase citizens' level of satisfaction.

The economic, social, political, and military turbulence that Ukraine is currently experiencing due to the war with the Russian Federation has slowed the country's development and led to the socioeconomic regression of certain regions, creating an existential challenge for the country. The key economic factors in restoring socioeconomic development and economic stability are the preservation and effective realisation of the potential of the entrepreneurial sector, as well as the capitalisation of the factors of production. Ukraine's economic progress requires the effective migration of businesses and their production equipment and other capacities to safer regions. The relocation of elements of the economic system serves as a tool for preserving business activity and creativity and accumulating and commercialising new technologies. According to a study by the Advanter Group (11–13 March 2022), due to the war, 54% of enterprises completely ceased operations in Ukraine, 25% almost stopped their activities, 21% relocated (2% completely, 12% partially, 7% in the process), and 31% of enterprises did not have time to relocate (Econ.T 2022).

The absence or further decline in business activity in the country will lead to the stagnation of national and regional economies. Since the entrepreneurial sector is a catalyst for the intensification of industrialisation processes, economic innovation, and technological progress, a priority for the economic policy must be developing an instrument to mitigate the threats and risks to national and regional economic security and preserving and developing business potential and industrial capital.

Business migration to the Carpathian region of Ukraine has an ambiguous impact on the social and economic development of the territory, leading the researchers to formulate the following hypotheses:

H1: Business migration allows for preserving the entrepreneurial potential of the territory, region, and country, thus ensuring economic recovery through the restoration of budget sustainability.

H2: Business migration leads to a significant loss of resources (financial, intellectual, innovative, and technological) in regional business donor economies.

The purpose of the article is to argue for the need to improve the tools of state support for local businesses and relocated elements of the economic system to preserve and develop the potential of the country's entrepreneurial sector.

1. Literature review

1.1. Social and economic environment of business migration regulation.

The increasingly negative demographic, social, and economic consequences of international migration in wartime present a challenge to the development of Ukraine's economic system. However, migration also performs the so-called market-adaptation function when, given a surplus in the labour market, low income and wages, and other conditions, it allows a migrant person to provide themselves and their family with the necessary earnings (Rahman 2013; Mulska et al. 2020; Boiko et al. 2021). In this context, immigration can be seen as a natural result of economic relations or corruption. Several studies have shown that migration during periods of economic development has numerous positive effects, such as balancing the structural characteristics of the employment sector; increasing the knowledge, professional qualifications, and specialised skills of the employee; and generally increasing intellectual and human resource capital, thereby improving financial and resource opportunities for further development (Gómez and Giráldez 2017; Hear et al. 2017; Katsarski 2019). Therefore, the managed migration process is favourable to the wartime economy concerning the country and its territories; the system of cross-border, interregional and international relations; and finally, Ukraine's European integration.

The impact of business migration to the Carpathian region is ambiguous among the determinants of socioeconomic stabilisation. On the one hand, these processes save businesses and jobs. On the other hand, the critical risks of the processes include a significant loss of resources (financial, intellectual, human (Lücke and Saha, 2019), innovative, and technological (An et al., 2014; Mulska et al., 2020)) in the regional economy from which the business migrates. The tools of state support for local businesses and relocated elements of the economic system must be intensified and improved in the face of the existential challenges today (An, Kang and Lee 2014; Cifranič 2016; Vasylytsiv et al. 2022) to preserve and develop the potential of the entrepreneurial sector, restore economic growth and security to the country and its territories, and capitalise on factors of production and innovative progress.

Today, international business migration is becoming a new trend in the migration processes of Ukraine, and it has two forms. The first, 'classic' form refers to an entity removing its registration in Ukraine and registering as an economic agent as a resident of another state or as a new enterprise abroad and transferring some of its capital there (Brouwer et al. 2004; Cohen and Morrison 2005). The second, 'hidden' form of business migration refers to when a migrant person starts their own business in another country, either immediately or over time, after working as a hired worker (Collings et al. 2007; Hemmasi et al. 2010; Balbontin and Hensher 2019).

Poland currently has the highest number of labour migrants from Ukraine and almost the highest rate of economic growth among the EU countries – according to expert estimates, the country

will become one of the 20 largest economies in the world by 2030. Poland's clear and transparent legislation, judicial system, and moderate level of tax burden significantly incentivise business migration from Ukraine to Poland (Levytska et al. 2022; Mulska et al. 2022). However, other countries, such as the Czech Republic, Germany, Hungary, Romania, and Great Britain et. are also adopting similar policies, which threaten to draw more businesses out of Ukraine.

For Ukraine, these trends are critically threatening. Individuals capable of entrepreneurship are skilled at overcoming difficulties, creating new jobs, and generating innovative ideas and solutions. Thus, along with business migration, there is also the movement of capital and other assets, among which intangible elements such as intellectual property are given special priority. The result of migrating innovation activity reduces the innovative and technological competitiveness of the national economy.

Business migration abroad also means that specific entrepreneurial skills, experience in organising and doing business, business technologies, and connections and relationships are leaving the country. Ukrainian businesses abroad become centres for attracting Ukrainian business partners, market infrastructure actors, employees, and families. Educational emigration is also stimulated, as businesses often want the Ukrainian employee to be prepared and immediately adapted to the realities of the country where the business is registered and functioning.

2.2. Organisational and economic policy of Ukraine to support businesses during the war.

Since the beginning of the war, central and regional governments have implemented several measures to stabilise the activities of the entrepreneurial sector in Ukraine, provide organisational and financial support for relocated businesses, and reduce current and potential risks and threats. These measures include:

- (1) Regulating the free transportation of the property of business enterprises, institutions, and organisations (Resolution CMU 2022b);
- (2) Providing a plan of urgent measures to move, if necessary, the production capacities of business entities from the territories where hostilities are taking place or where there is a threat of hostilities (Resolution CMU 2022a);
- (3) Developing the Ministry of Economy's programme for the relocation of enterprises, which provides for the provision of a package of state support for the selection of a location and transportation to the new location;
- (4) Assisting in the resettlement of employees and the search for new employees, as well as the restoration of logistics, the purchase of raw materials, and the search for markets (MEU 2022).

At the initiative of the government, other informational and organisational measures have been taken to support and provide for the functioning of relocated businesses in Ukraine. In particular, information platforms for business relocation assistance have been developed at the central level. The main tasks of these platforms are to ensure a quick process of finding a location for the resumption of business; establish direct contacts between territorial communities and businesses ready for relocation; provide a free platform for supporting business relocation, which is intended for both businesses that have applied for relocation and for enterprises that intend to help others with relocation; and provide Telegram channels to monitor the needs of relocated businesses and businesses in the process of relocation, as well as **chatbots** for communication between regional authorities and relocated enterprises.

In addition, the Ukrainian Cabinet of Ministers has developed a new tax model for wartime business. The main elements of the tax model are:

- (1) Lending to enterprises under the programme '5-7-9%' in the amount of up to UAH 60 million at 0% interest during martial law;
- (2) A simplified taxation system: for large businesses, it is possible to pay only a single tax, provided that the annual turnover of the enterprise/company does not exceed UAH 10 billion. For individual entrepreneurs of groups I and II, a single tax is voluntary (if there is no income during wartime, individual entrepreneurs may also not pay single social contribution (SSC)). Furthermore, individual entrepreneurs of groups II and III do not need to pay SSC for mobilised workers – it will be paid at the expense of the state budget;

- (3) Reduction of VAT on fuel from 20% to 7% (in particular, on its import), as well as the abolition of excise taxes on petroleum products;
- (4) Increase in rent for mining (IFin 2022).

3. Methodology

The article uses a set of general scientific methods and techniques, such as theoretical and logical generalisation, to identify the latest determinants of the state regulation of business development and the need to preserve entrepreneurial capital. It takes a systematic approach to study the development of state and regional business support in wartime, the conceptual foundations of business migration management processes, the development of strategic directions for implementing state and regional business migration policies, and the economic mechanisms for regulating business migration.

Structural-logical and semantic analyses are used to investigate the developmental environment for relocated businesses, and grouping is used to identify the risks and threats that business migration post to the national economy, the economic system of the Carpathian region, the internal consumer market, and business entities. In addition, the article adopts methods of analysis and synthesis to generalize the tools that can be used to manage business relocation processes.

Statistical analysis enables the researchers to analyse the current state, trends, and structural changes in international and internal business migration, and cluster analysis is used to assess the characteristics of regional economies as a determinant of business attractiveness for relocation. Finally, strategic management justifies institutional support for the regulation of internal and international business migration.

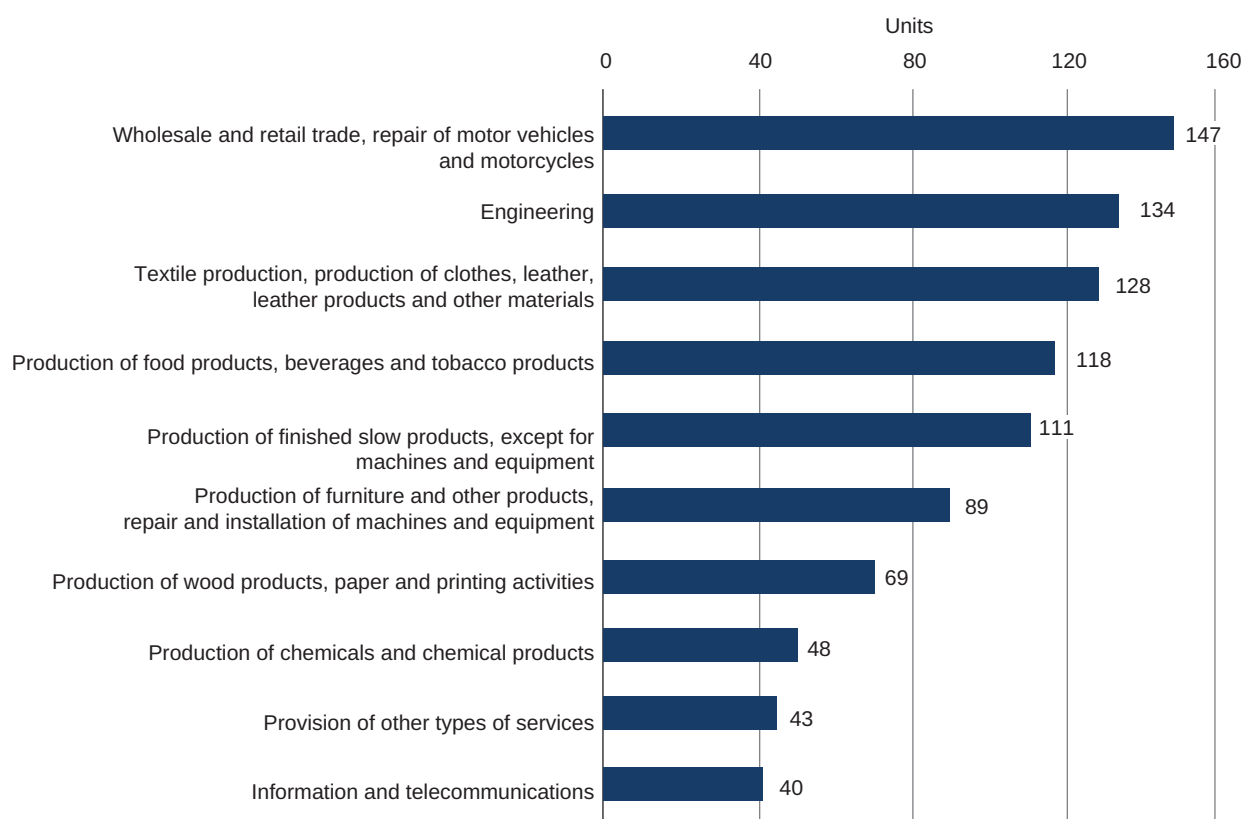
The study's sources are the laws of Ukraine, decrees of the President of Ukraine, resolutions of the Cabinet of Ministers of Ukraine, normative legal acts of the Ministry of Economy of Ukraine, statistical materials of the State Statistics Service of Ukraine, analytical materials of internal and international economic organisations, and publications of internal and international experts. The outlined trends in business migration are highlighted based on expert and statistical data from the time period between 24 February and 20 April 2022.

4. Results

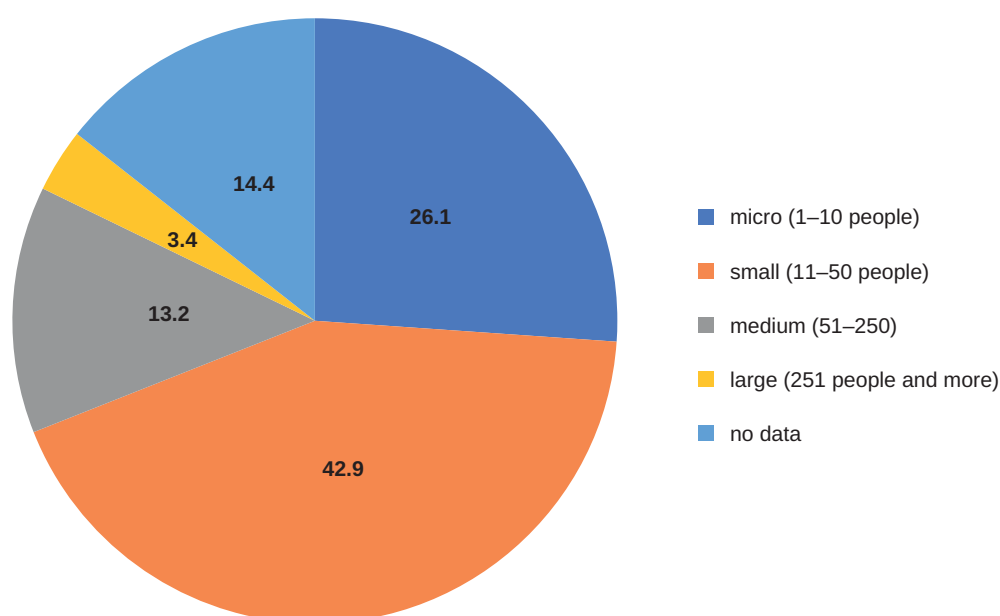
The problem of providing relocation to safe regions of Ukraine or other countries has become acute for business entities that find themselves in hot zones where active hostilities are expected, to preserve business activities and provide conditions conducive to development. As of 16 April 2022, the Ukrainian Ministry of Economy received 1,630 applications for relocation from enterprises (Fig. 1a, b). About 400 enterprises were relocated, over 200 of which resumed work in a new place (MEU 2022). Strategic enterprises and companies that produce essential goods, as well as enterprises that were able to independently dismantle and transport their capacities, received priority for financial and organisational support from the state.

The Carpathian region of Ukraine has become the main economic hub for relocated businesses (Fig. 2) because it has a higher level of wartime economic security compared to other regions, high export potential, opportunities for the restoration and growth of foreign trade with the EU countries, and an employment-surplus regional labour market which can provide jobs and reduce the cost of production. Thus, in the Lvivska oblast (20 April 2022), 400 applications for business relocation were processed, of which 93 units of various sectors of the economy (mechanical engineering, food, woodworking, light, and chemical industries) successfully carried out relocation, preserving more than 600 jobs (LODA 2022).

In the Lvivska oblast, a programme was developed to support relocated businesses by providing irrevocable financial assistance in the amount of UAH 100,000 when registering an enterprise within the region and more than an additional UAH 100,000 subject to the creation of 20 jobs. The programme provides compensation for connection to the power grid (UAH 750,000 per enterprise), as well as two vouchers for marketing services (UAH 50,000) and product certification (UAH



a) The 10 biggest industries that applied for business relocation in Ukraine by the number of relocated enterprises



b) Structural distribution of applications for business relocation by enterprise size and number of jobs, shown by percentage

Figure 1. Business relocation applications: Industry scale (units) and structural distribution (%), 2 April 2022

Source: Systematised based on the data from MEU (2022).

80,000) (Business 2022b). Thus, the Lvivska oblast has every opportunity to become the largest industrial hub in the country.

Furthermore, the Lvivska oblast has become the main point of relocation not only for production enterprises but also for high-tech companies. Before the war, Lviv was the third-largest IT capital of Ukraine after Kyiv and Kharkiv, with about 30,000 people working in IT in Lviv. The number of

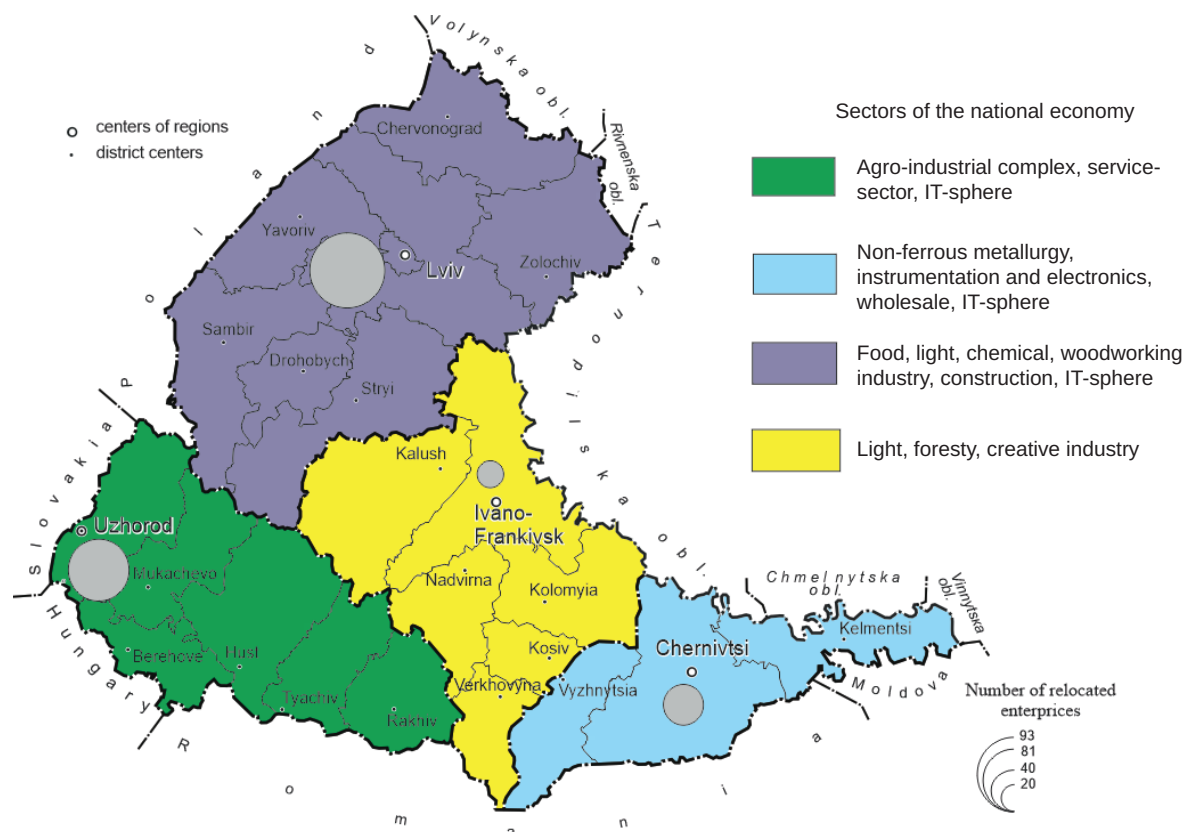


Figure 2. Scale and sectoral affiliation of businesses that relocated to the oblasts of the Carpathian region of Ukraine (units), 6 April 2022

Note: The figure represents the number of enterprises (units) in the Lvivska and Zakarpatska oblasts as of 20 April and 15 April 2022, respectively.

IT specialists in Lviv reached 70,000–100,000 during the war (6 April 2022) (UNIAN 2022). The number of IT companies in the Lviv cluster has increased by 40 units since the beginning of the war in the country.

Eighty-one units were relocated to the Zakarpatska oblast (Uzhhorod, Mukachevo and Beregovo) (15 April 2022); of them, 54 enterprises are already functioning, and 27 are in the process of placement (13 April 2022) (Business 2022b). These are companies from the IT, medical, agro-industrial, light, and pharmaceutical industries. The oblast does not consider applications for the relocation of businesses whose activities are harmful to the environment or create risks for the tourism and recreational industry (Business 2022a).

About 100 enterprises (6 April 2022) applied for relocation to the Ivano-Frankivska oblast. Almost 20 of these units moved their production facilities from territories where active hostilities continue (Zhasminova 2022). Light and forest industry enterprises (in particular, furniture and modular houses), as well as companies from the creative industry, have relocated to the region.

In the Chernivetska oblast, the relocated businesses are industry-specific. These are enterprises that specialise in manufacturing non-ferrous metals, electric motors, chemical reagents, and maintenance of special equipment, as well as wholesale and IT enterprises. Forty enterprises have been relocated (6 April 2022), and 20 have launched production facilities (Social 2022).

Before the outbreak of hostilities in Ukraine, there was a trend toward both clear and hidden business migration abroad. The main reasons for the increase in business migration were Ukraine's socioeconomic conditions, which were mostly unfavourable in comparison with the EU countries, its high tax burden, and the low level of investment attractiveness in the territories and sectors of the economy. It is noteworthy that at the beginning of 2022, there were 21,800 companies with Ukrainian capital in Poland, which was 2.5 times more than German enterprises and 5 times more than Dutch enterprises. The war and, consequently, problems with logistics and the shortage of raw

materials, led to the intensification and spread of various forms of business migration from Ukraine to Poland. Since the beginning of the war, 5% of businesses (enterprises of the creative, IT, and light industries) have migrated abroad (Liga Business 2022).

International business migration (evacuation) has the greatest impact on the entrepreneurial sector of the national economy. The entrepreneurial sector's degree of influence depends on both the volume of business migration abroad and the quality characteristics of the relocated businesses. The departure of highly qualified specialists, subjects of strategic sectors of the economy, enterprises with unique resources, technological potential, and so on will negatively impact the national and regional economies, making it impossible to create economic stability and realise the potential of the entrepreneurial sector.

International business migration will likely increase due to the indefinite end of the war, the weakening of the country's economic security, the damage to logistics chains, and the lack of economic opportunities for the entrepreneurial sector. Damaging aspects of doing business in Ukraine contribute to the market for business migration, including the relocation of businesses to the EU countries. The development of audit and advisory networks will contribute to business migration out of Ukraine and increase the country's risk of losing entrepreneurial capital.

Business in wartime Ukraine operates under conditions of complete uncertainty, complex security risks, and socioeconomic unpredictability and turbulence. In such a situation, it is critically important to ensure that businesses are properly prepared to respond to emergencies and that authorities implement adaptive measures to reduce the level of elasticity in numerous factors, including the military threat on the north-eastern, eastern, and southern borders of the state and the systemic crisis and stagnation of the economy.

5. Discussion

During the Russian–Ukrainian war and martial law in Ukraine, internal and international business migration generates distinct threats to the Ukrainian economic system and regional economies, including the oblasts of the Carpathian region of Ukraine, the internal consumer market, and business entities.

The most significant threats to the Ukrainian economic system are the reduction of business activity, the declining GDP of the country, and the limiting or non-existent tax revenues to local budgets. In one month of the war, the total direct losses of small and medium-sized businesses in Ukraine reached 80 billion USD. In the first quarter of 2022, Ukraine's GDP fell by 16% (Guba 2022), and the forecast estimate of Ukraine's GDP contraction in 2022 is 21% (Forbes 2022).

The other threats to the national economy are:

- (1) Inefficient infrastructure with high resource and energy consumption required for production, excessive development of raw materials industries, low level of innovation, detachment of the financial sector from the real economy, and inefficient functioning of sectors that provide social development;
- (2) Lack of innovative and technological development in industrial enterprises, deterioration of the scientific and technical potential of industry, and reduction of the share of high-tech industries due to large-scale migration of capital and labour;
- (3) Deepening disparities between consumer spending and economic investment, and structural imbalances in the development of the internal consumer market;
- (4) Significant loss of financial, intellectual, and human resource support for the development of Ukraine, reduction of export potential, and continuous transformation of the geography of industrial enterprises' export processes.

An enormous threat that business migration poses to regional economies, including the oblasts of the Carpathian region, is increasing the financial burden on local budgets related to financing the support and development programmes for relocated businesses in the region. This may lead to a significant deficit of resource support for the economic development of the regions; asynchronous territorial development due to the uneven allocation of relocated businesses; the replacement of high-tech production with low-tech; and increasing the cost of production due to the lack of regional programmes for cooperation between industry and scientific and technological institutions.

In addition, regional economics may experience low efficiency in technological parks and business incubators. Furthermore, against the background of state support for relocated and local enterprises prioritising jobs for internally displaced people, there is a risk of deepening the structural and sectoral disparities of regional labour markets due to the growing unemployment rate among the local population. Another significant risk for regional economies in wartime is the worsening of budget imbalances among regions (creating tensions in the budget and tax sphere) due to the high probability of relocated businesses having low participation in value chains, as well as the risk of reverse business relocation.

Concerning the internal consumer market, business relocation in Ukraine may pose the following risks:

- (1) Prolonged growth of the overall level of prices for consumer goods, including food, raw materials, and suppliers' goods, and a decrease in purchasing power, which will lead to structural deformations in the internal consumer market;
- (2) Reducing the diversification of product supply structures, thereby failing to meet the growing demand and requirements of consumers for the quality and range of products.

Several risks pertain directly to business entities, namely:

- (1) Loss of competitive advantages due to the lack of an adaptive marketing strategy, limited information about the local market, and temporary innovation and market lag compared to local competitors;
- (2) Increased risk of bankruptcy, lack of high capital turnover, and problems with recruitment.

6. Summary and concluding remarks

The uncontrolled spread of business migration within Ukraine and from Ukraine to EU countries, as well as the non-optimal organisational and economic mechanisms for supporting relocated and local businesses in wartime conditions, negatively impacts the stability of the social and economic system of Ukraine. Business migration to the Carpathian region has increased due to factors such as the indefinite end of the war, the weakening of economic security in Ukraine as a whole and in those regions where active hostilities are taking place, damage to logistics chains, and the lack of economic opportunities for the entrepreneurial sector. Sectoral differences have been identified among relocated businesses in the oblasts of the Carpathian region: the Zakarpatska oblast hosts companies from the agro-industrial complex, service sector, and IT sphere; the Chernivetska oblast contains companies working on non-ferrous metallurgy, electronics, wholesale trade, and IT; the Lvivska oblast is popular among food, light, chemical, woodworking, construction, and IT companies; and many companies from the light, forest, and creative industries have migrated to the Ivano-Frankivska oblast.

To neutralise the threats of business migration to the oblasts of the Carpathian region of Ukraine, it is necessary to form and implement appropriate organisational, financial, and economic measures to preserve and develop entrepreneurial capital during the Russian–Ukrainian war. Such measures would support the social and economic stability of the country and its regions and equalise spatial-structural and social disparities. Measures of mitigating threats to relocated businesses and minimising the risks of destabilising the social and economic system of the regions can be categorised into three modes. The first mode, *hibernation mode*, includes implementing resource mobilisation and a partnership model of doing business, providing financial and organisational support to export-oriented businesses, and granting permission to foreign entities and individuals to invest in military bonds, the digitalisation of business processes, and so on.

The measures of the second mode, *business migration mode*, include simplifying the procedure for obtaining budget support for a relocated business, providing various forms of assistance to relocated enterprises, reducing the cost or delaying payment for renting warehouses for relocated businesses, and creating industrial clusters in the region. The final mode, *business evacuation mode*, contains measures such as applying modern business technologies, innovations, and intellectual property; developing cooperation practices for small and large relocated businesses abroad; and involving the Ukrainian diaspora in organisational and financial assistance to relocated businesses.

Recommendations

Regional policies regarding the development of relocated businesses and the mitigation of relevant threats must prioritise supporting industries and individual enterprises in the following areas: high-tech business, which is capable of providing innovative development of the economy as a whole as well as progressive energy-efficient technological equipment; industries whose products will directly contribute to the development of the internal market and import substitution; integrating the regions of the country; solving the problems of depressed territories; and supporting cross-regional cooperation.

Measures to neutralise the threats to business activity in Ukraine and to business migration to the oblasts of the Carpathian region should be identified according to three business response modes, which correlate to the changing level of threats and critical risks in war conditions. These three modes are hibernation, relocation, and evacuation (Table 1).

Table 1. Toolkit for supporting business activity in wartime

Modes	The main measures
Hibernation	Implement resource mobilization and the partnership model of doing business
	Provide financial and organizational assistance to export-oriented businesses
	Conduct work to obtain financial assistance from international institutions
	Maximally digitalize business processes and use electronic services
	Strengthen bilateral cooperation with EU countries in terms of a temporary simplification of customs and licensing procedures
Relocation	Simplify the procedure for obtaining budget support for relocated businesses
	Expand forms of regional order for the goods and services of relocated enterprises without complex long-term contracts
	Provide various forms of assistance to relocated enterprises
	Reduce the cost or delay payment for relocated businesses renting warehouses
	Create industrial clusters in the region
	Provide tax holidays for enterprises of radio engineering, the electronic industry, and mechanical engineering
Evacuation	Improve business conditions in Ukraine in general
	Apply modern progressive business technologies, innovations, and intellectual property
	Create specialized grant programmes and projects to activate the system of communications with relocated businesses abroad
	Develop cooperation practices for small and large relocated businesses abroad
	Develop platforms for finding international projects for relocated Ukrainian enterprises

Source: own elaboration.

To preserve entrepreneurial capital and the pace of business activity in wartime Ukraine, the key measures of central and regional governments are those that can be effective in hibernation mode, that is, the temporary provision of a significant part or all of business operations. These measures include:

- (1) Implementing resource mobilisation and the partnership model of doing business, according to which units become partners of the state in the process of providing for the needs of the population and simultaneously increasing the mobility of business processes and the adaptability of organisational and entrepreneurial structures. The most successful practice is based on the model of public–private partnership, which involves businesses in targeted projects to stabilise the economy and restore social infrastructure;
- (2) Providing financial and organisational assistance to export-oriented businesses. The main task of these businesses in wartime is to increase export volumes to increase foreign exchange earnings to the regions of Ukraine. Preserving the geography of exports by simplifying

export-import procedures should be a priority since the result of investments in this direction provides potential financial resources. Key measures to this end are:

- a) Restoring transport and logistics infrastructure (roads, warehouses, points of registration of goods);
 - b) Creating reserve routes, particularly reorienting part of the goods flow from sea to land.
- (3) Conducting work to obtain financial assistance from international institutions and allowing foreign legal entities and individuals to invest in military bonds;
 - (4) Maximally digitalise business processes and use electronic services;
 - (5) Strengthen bilateral cooperation with EU countries in terms of a temporary simplification of customs and licensing procedures.

An important task for state authorities is to develop adaptive triggers that can affect the process of business development in the oblasts of the Carpathian region (relocation mode). For the relocated business, it is necessary to implement organisational, institutional, financial, and informational measures to support the business's adaptation and development. Such measures include:

- (1) Simplifying the procedure for obtaining budget support for relocated businesses, especially introducing a single window for budget assistance to be obtained by relocated enterprises, which will be financed through government-targeted military bonds or a special fund of international assistance for the restoration of the country;
- (2) Expanding forms of state (as well as regional and local) order for the goods and services of relocated enterprises without complex long-term contracts;
- (3) Providing various forms of assistance to relocated enterprises, such as irrevocable financial assistance to production enterprises from local budgets, provided that new jobs are created; voucher support for micro and small businesses; and financing the cost of purchasing equipment for the light, food, and machine-building industries;
- (4) Reducing the cost or delaying payment for relocated businesses renting warehouses;
- (5) Creating industrial clusters in the region, which will increase economic efficiency and labour productivity and profitability, as well as facilitate the access of production units to highly skilled labour, services of financial and credit and trade organisations, and infrastructure and scientific and educational resources;
- (6) Provide tax holidays to enterprises of radio engineering and the electronic industry, as well as mechanical engineering (railway, aviation). Such an initiative will strengthen the industrial potential of the region, effectively capitalise on production factors, and create high competitiveness. In a few years, the active relocation of industrial enterprises to the western regions of Ukraine will transform the geography of the country's industrial potential.

The business evacuation mode (relocation from the territory of Ukraine to another country) is the most dangerous for the economy of the country and the region, as it increases the migration potential of the region and the country, leaching it of intellectual, human, and entrepreneurial resources. By contrast, business re-immigration to Ukraine, the replacement of business migration abroad with business migration to safer regions of Ukraine, and the accumulation of migration capital encourage the development of a hibernation regime.

The key government initiatives in the sphere of business relocation abroad should be:

- (1) Improving business conditions in Ukraine in general and in its regions. First, some components of the business environment of Ukraine require improvement; these components include international trade, insolvency problems, the taxation system, the execution of contracts, and connection to digital international networks. It is noteworthy that EU countries have been found to have the best conditions in the world for foreign trade activities (World Bank 2020). The business environment of Ukraine and the Carpathian region requires the implementation of certain measures to improve its ability to neutralise threats against raiding, corruption, political lobbying, pressure from controlling structures, and the monopolisation of regional economies;
- (2) Applying modern progressive business technologies, innovations, and intellectual property;
- (3) Forming specialised grant programmes and projects to activate the system of communications with relocated businesses abroad and create reverse flows of relocated businesses;
- (4) Developing cooperation practices for small and large relocated businesses abroad as well as enterprises that remain in Ukraine, which will reduce the risks of production and sales operations for business units in the region and provide new directions of development;

- (5) Develop platforms for finding international projects for relocated Ukrainian enterprises, which will contribute to creating a partnership environment between Ukrainian and foreign companies and providing working projects for relocated businesses in the IT sector, creative industry, engineering, and consulting;
- (6) Involve the Ukrainian diaspora in organisational and financial assistance to relocated businesses.

The proposed toolkit for supporting business activity in wartime and levelling the threats of units' migration to the oblasts of the Carpathian region of Ukraine in the projection of three modes will eliminate the outlined intimidations to relocated business and minimise risks in the projection of socio-economic development of Ukraine in general and the Carpathian region in particular. Therefore, further research will be the development of a regional programme to support relocated business for the development of the entrepreneurial sector and ensure the economic stability of the territory.

References

- An, Y., Kang, Y., and Lee, S., 2014, 'A study on the impact of soft location factors in the relocation of service and manufacturing firms', *International Journal of Urban Sciences*, 18(3), 327–339. <https://doi.org/10.1080/12265934.2014.893834>
- Balbontin, C., and Hensher, D. A., 2019, 'Firm-specific and location-specific drivers of business location and relocation decisions', *Transport Reviews*, 39(5), 569–588. <https://doi.org/10.1080/01441647.2018.1559254>
- Boiko, V., Mulska, O., Baranyak, I., and Levytska, O., 2021, 'Ukrainian migration aspirations towards Germany: Analysis and development scenarios', *Comparative Economic Research*, 24(1), 65–84. <http://dx.doi.org/10.18778/1508-2008.24.04>
- Brouwer, A. E., Mariotti I., and van Ommeren, J. N., 2004, 'The firm relocation decision: An empirical investigation', *The Annals of Regional Science*, 38(2), 335–347. DOI: 10.1007/s00168-004-0198-5
- Business, 2022a, *Large capital relocation*. Accessed 16 April 2022, at: <https://biz.nv.ua/ukr/economics/it-kompaniji-perejizdyat-u-lviv-ivano-frankivsk-vinnicyu-hto-pereviz-biznes-novini-ukrajini-50234910.html> (accessed: 17.04.2023).
- Business, 2022b, *In Zakarpattia a national IT cluster is being created*. Available at: <https://biz.nv.ua/ukr/tech/na-zakarpatti-stvoryuyut-sviy-it-klaster-novini-ukrajini-50230119.html> (accessed: 20.04.2023).
- Cifranič, M., 2016, 'Localization factors in decision making of location of selected enterprises', in: E. Horská, Z. Kapsdorferová, M. Hallová (eds.), *International Scientific Days 2016: The Agri-Food Value Chain: Challenges for Natural Resources Management and Society* (pp. 305–314). Nitra: Slovak University of Agriculture in Nitra. <https://doi.org/10.15414/isd2016.s4.09>
- Cohen, J. P., and Morrison, C. J., 2005, 'Agglomeration economies and industry location decisions: The impacts of spatial and industrial spillovers', *Regional Science and Urban Economics*, 35(3), 215–237.
- Collings, D. G., Scullion, H., and Morley, M. J., 2007, 'Changing patterns of global staffing in the multinational enterprise: Challenges to the conventional expatriate assignment and emerging alternatives', *Journal of World Business*, 42, 198–213. DOI: 10.1016/j.jwb.2007.02.005
- Economic Truth (Econ.T), 2022, 'How the state can support business in war'. *Ekonomicheskaya Pravda*, March 22nd. Available at: <https://www.epravda.com.ua/rus/columns/2022/03/20/684363/> (accessed: 30.03.2022).
- Forbes, 2022, 'Small and medium-sized businesses lost \$80 billion in the month: How entrepreneurs work in conditions of war', *Forbes*, September 25th. Available at: <https://forbes.ua/news/maliy-ta-seredniy-biznes-za-misyats-vtrativ-cherez-vyynu-80-mlrd-yaki-problemi-ta-ochikuvannya-pidpriemstv-25032022-5015> (accessed: 16.04.2022).
- Gómez, M. G., and Giráldez, M. S., 2017, 'The causality between economic growth and immigration in EU/EFTA member states', Documentos de trabajo do Departamento de Economía Aplicada (1701). Available at: <http://webx06.webs4.uvigo.es/wp-content/uploads/2019/05/wp1701.pdf> (accessed: 18.04.2022).
- Guba, R., 2022, 'The annual decline of Ukraine's economy can reach 40 percent'. Available at: <https://www.dw.com/uk/richne-padinnia-ekonomiky-ukrainy-mozhe-siahnuty-40-vidsotkiv-minekonomiky/a-61340071> (accessed: 25.04.2022)
- Hear, N. V., Bakewell, O., and Long, K., 2017, 'Push-pull plus: Reconsidering the drivers of migration', *Journal of Ethnic and Migration Studies*, 44(1), 1–18. <https://doi.org/10.1080/1369183X.2017.1384135>

- Hemmasi, M., Downes, M., and Verner, I., 2010, 'An empirically-derived multidimensional measure of expatriate success: Reconciling the discord', *The International Journal of Human Resource Management*, 21(7), 982–998. <https://doi.org/10.1080/09585191003783447>
- IFin, 2022, 'New tax benefits for enterprises under martial law'. Available at: <https://www.ifin.ua/news/showsinglenews?id=16504&savedPageNumber=1&backUrl=/> (accessed: 02.05.2022)
- Information Agency (UNIAN), 2022, 'Experience in business relocation during the war'. Available at: <https://www.unian.ua/society/velikiy-perejzd-dosvid-relokacii-biznesu-pid-chas-viyni-novini-ukrajini-11774737.html> (accessed: 24.04.2022).
- Katsarski, N., 2019, 'Factors determining migration of the population', *International Journal of Knowledge Management*, 30(6), 1729–1733. DOI: <https://doi.org/10.35120/kij30061729K>
- Levytska, O., Mulska, O., Shushkova, Yu., Ivaniuk, U., Vasylytsiv, T., Krupin, V., and Ivanova, L., 2022, 'Modelling the impact of emigration upon social and economic development of the Carpathian region of Ukraine', *Bulletin of Geography. Socio-economic Series*, 57, 141–154. DOI: 10.12775/bgss-2022-0028.
- Liga Business, 2022, 'How the war affected Ukrainian business'. Available at: <https://biz.liga.net/ua/ekonomika/all/article/gosudarstvo-svoeobraznyy-koll-tsentr-kak-biznes-ubegaet-ot-voyny-na-zapad-ukrainy> (accessed: 21.04.2022)
- LODA, 2022, 'Since the beginning of the war, almost a hundred enterprises have been relocated to Lviv region'. Available at: <https://loda.gov.ua/news?id=67192> (accessed: 21.04.2022).
- Lücke, M., and Saha, D., 2019, 'Labour migration from Ukraine: Changing destinations, growing macro-economic impact', Policy Studies Series [PS/02/2019]. Berlin – Kyiv: German Advisory Group.
- Ministry of Economy of Ukraine (MEU), 2022, *Enterprise relocation program*. Available at: <https://www.me.gov.ua/Documents/Detail?lang=uk-UA&id=3e766cf9-f3ca-4121-8679-e4853640a99a&title=ProgramaRelokatsiiPidprimstv> (accessed: 16.04.2022).
- Mulska, O., Levytska, O., Panchenko, V., Kohut, M., and Vasylytsiv, T., 2020, 'Causality of external population migration intensity and regional socio-economic development of Ukraine', *Problems and Perspectives in Management*, 18(3), 426–437. DOI: 10.21511/ppm.18(3).2020.35
- Mulska, O., Vasylytsiv, T., Levytska, O., Sabetska, T., and Stefanyshyn, L., 2022, 'Development of regional labor markets in Ukraine as a tool to regulate internal migration and reduce social vulnerability', *Central European Management Journal*, 30(4), 120–149. DOI: <https://doi.org/10.7206/cemj.2658-0845.92>
- Resolution CMU, 2022a, On approval of the plan of urgent measures for the movement, if necessary, of the production capacities of business entities from the territories where hostilities are taking place and / or there is a threat of hostilities to safe territory. Available at: <https://zakon.rada.gov.ua/laws/show/246-2022-%D1%80#Text> (accessed: 16.04.2022).
- Resolution CMU, 2022b, On the peculiarities of the joint-stock company 'Ukrposhta' in conditions of martial law. Available at: <https://zakon.rada.gov.ua/laws/show/305-2022-%D0%BF#Text> (accessed: 17.04.2022).
- Rahman, M. M., 2013, 'Estimation of internal migration by the national growth rate method: An alternative approach', *The Bangladesh Development Studies*, 36(3), 79–87. DOI: <https://doi.org/10.2307/44730021>
- Social, 2022, *40 enterprises from war zones moved to Bukovyna*. Available at: <https://suspilne.media/223197-na-bukovinu-pereihali-40-pidpriemstv-iz-zon-bojovih-dij-so-vidomo/> (accessed: 25.04.2022)
- Vasylytsiv, T., Mulska, O., Osinska, O., and Makhonyuk, O., 2022, 'Social and economic development of Ukraine: Modelling the migration factor impact'. *Economics and Business Review*, 8(3), 27–58. DOI: <https://doi.org/10.18559/eb.2022.3.3>
- World Bank, 2020, *Business enabling environment*. Available at: <https://www.worldbank.org/en/programs/business-enabling-environment/alternative-existing-indicators#1> (accessed: 26.04.2022).
- Zhasminova, E., 2022, 'Business relocation'. Available at: <https://galka.if.ua/shvejni-czehi-virobnicztvo-modulnih-budinkiv-ta-vulichnih-mebliv-vzhe-sto-biznesiv-mayut-namir-pereihati-na-prikarpattya/> (accessed: 18.04.2022).

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Participation in International Integration Associations as a Factor of Ukraine's Global Competitive Power

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Abstract

Current globalisation processes require the identification of priority areas for Ukraine's further integration into the international economy. The right choice of direction, tools and forms of implementation allows the government to determine, justify and implement a competitive strategy for the country. The study aimed to determine the relationship between international economic integration and Ukraine's global competitive power. Identifying Ukraine's sectoral comparative advantages in trade with the EU and evaluating the index of the regional orientation of Ukraine for specific groups of goods and services made it possible to define the effects of economic collaboration with the European region. The assessment of the complementarity index of Ukrainian–European trade relations revealed that Ukraine and the European Union are main trading partners. Furthermore, the analysis of the mechanism of the Association Agreement between Ukraine and the European Union proved that the agreement actively contributes to the growth of Ukraine's global competitive power. Comparative analysis in historical retrospect revealed priority areas for improving the integration processes which help to form the main competitive advantages of the country.

Keywords

integration, collaboration, competitive advantages, liberalisation, international trade, association

Introduction

Independent Ukraine has become a member of many integration associations, which have influenced the formation of its global competitive power in various ways. The WTO has enumerated 18 free trade zones in which Ukraine participated in 2020. These international integration associations (IIA) cover 45 countries of the world and concern the trading of goods, services and other aspects of mutual regulation between countries. However, most of these IIAs are anaemic and do not affect Ukraine's global competitive power. Furthermore, almost all agreements including Russia and Belarus are not currently implemented due to the war. Since the European Council granted Ukraine the status of a candidate for the European Union in June 2022 at the summit in Brussels, the course of European integration has become not only a generally recognized direction of the further development of Ukraine but also a strong motivator for Ukrainian people, business and economy.

Since 2014, the strategic course of Ukraine's socioeconomic and political transformations has been very closely linked to the idea of European integration. In particular, the Association Agreement (AA) with the EU has become a key mechanism for determining the pace and direction of Ukrainian reforms and mechanisms for global competitiveness.

European integration is recognised as a priority area of the strategic development of Ukraine. In this aspect, it is essential to assess the attractiveness of European markets and the level of prospects for cooperation between Ukraine and the EU. The leadership of this regional market is mainly based on a high level of commodity diversification of exports and imports, as well as a low concentration of foreign trade flows, which reduces the risks of foreign economic activity associated with change. It should be noted that the dynamic composition of such an analysis will also indicate the high prospects of European markets.

The study of prospects for cooperation with the EU should be carried out by analysing not only the total volume of trade flows but also their structures. An important area of study for Ukraine's cooperation with European companies is the possibility of Ukraine's in-depth integration into complex technological chains of manufacturing both raw materials and products. This fact is indicated by current changes such as the increase in the general objects of production, provisions, and the progressive structure of the economy.

Literature review

When studying the economic and trade effects of Ukraine's participation in the processes of international economic integration and disintegration, it is essential to consider the scientific community's work and separate the transformation of Ukraine's global competitive power from its participation in IIAs. There is no clear consensus in the international academic literature on whether integration leads to an increase or decrease in the global competitive power of a participating country. However, the interdependence of these processes is evident.

The development of international economic integration and disintegration processes significantly affects the distribution of competitive power in the world economy. It should be noted that the unification of countries into interstate integration groups results from the countries' desire to increase their joint global economic and competitive power; thus, a country's global competitive power and international economic integration are interrelated processes. For example, Palinchak, Zayats and Bokoch (2020) have noted that the member states of the same international integration group receive different economic and trade effects from the union. Whether a country will benefit from becoming part of the integration process is studied quite closely.

Most studies focus on the participation of countries in IIAs. However, the literature on the impact of Ukraine's involvement in international integration on its global competitive power is less consistent. Given that the AA with the EU is a crucial mechanism that determines the pace and direction of Ukrainian reforms and the EU is Ukraine's leading trading partner, it is essential to study the impact of Ukraine's membership in international integration on its global competitive power.

Numerous studies have investigated the EU states and their level of global competitiveness. For example, Paola Annoni and Lewis Dijkstra (2019) studied the spatial variations of the regional global competitive power of the EU compared to the average international integration union. Lucia Bolea, Rosa Duarte, Geoffrey J. D. Hewings and Julio Sanchez-Choiz (2021) predicted scenarios for the development of disintegration in the EU. Marcin Szczepański (2019) analysed European competition policy, covering all trade and competition relations forms. Amanda Alves, Eric Brousseau and Timothy Yu-CheongYeung (2021) explored the interaction between the institutions of the EU and the member states. Ivan Arribas, Sami Bensassi and Emili Tortosa-Ausina (2020) quantified the processes of strengthening or hindering global trade through regional trade agreements, and Son Thanh Nguyen and Yanrui Wu (2021) identified network trading models. Eleonora Cutrini (2019) empirically studied the evolution of spatial differences between the member states of the EU and highlighted the growing polarisation in recent years. Cutrini concluded that a strong production base and high-productivity specialisation are key explanatory variables for differentiated paths of economic development and, as a result, increased EU competitiveness. Jan in 't Veld (2019) examined the macroeconomic benefits of the EU single market by simulating a scenario where tariffs and

non-tariff barriers are reintroduced and determined that such a scenario would significantly reduce intra-regional trade. Less open trade means a reduction in the size of the market and a weakening of competition and, consequently, competitiveness.

Linda Glawe and Helmut Wagner (2021) examined whether a member state of the EU is on the path of high or low institutional growth. Based on the method of synthetic control, Nauro Campos, Fabrizio Coricelli and Luigi Moretti (2019) identified the effects of growth from EU membership and proved that the EU membership significantly and positively impacts global competitiveness, except for the case of Greece. Olena Zayats (2020) identified the competitive power of IIAs and calculated the EU's competitiveness index. Lavinia-Maria Cernescu, Claudia Bitea and Luisa Izabel Dungan (2018) determined the global competitiveness ranking of the EU member state Romania and predicted what the country needs to do and when it will be able to reach the stage of an innovation-oriented economy. Maria C. Latorre, Zoryana Oleksyuk, Hidemichi Yonezawa and Sherman Robinson (2019) assessed Brexit and, based on in-depth macroeconomic analysis, concluded that there will be losses for both the UK and the EU.

Vasilios Plakandaras, Aviral Kumar Tiwari, Rangan Gupta and Qiang Ji (2020) considered the future economic and trade climate throughout the EU. The European Court of Auditors (2018) examined the rules of global competition, which are extremely important for the proper functioning of the EU single market. Kryztof Beck (2021) identified differences in the business cycles of the EU. Bas Karreman, Martijn J. Burger and Fred van Eenennaam (2019) dedicated their work to identifying European regions where competition between cluster organizations has been identified. European regions with such a location pose a more serious threat to each other's global competitiveness. John Gibert and Eva Muchova (2018) analysed the change in the export shares of Central and Eastern Europe since the fifth enlargement of the EU. Martijn Burger, Ronald Wall and Bert van der Knaap (2013) combined information from international economics, business and urban geography to develop a measure of revealed competition between territories for investment. Nebojsa Stojic, Perica Vojinic and Zoran Aralica (2018), using the method of synthetic control, studied the impact of trade liberalisation and changes in exports in the new EU member states. Lucjan T. Orłowski (2020) argued that a more profound integration of EU markets is required to accelerate economic growth.

The analysis of the competition policy of member states or cluster support strategies in the EU has thus been comprehensive. However, to date, no study has compared Ukraine's global competitive power dynamics, based on the World Economic Forum (WEF) criteria, with the overall AA implementation process.

Aim

The study aims to measure the causal relationship between international economic integration and Ukraine's global competitive power to identify areas that lead to the growth of Ukraine's global competitive power. One of the objectives is to assess Ukraine's global competitive power dynamics, based on WEF criteria, in relation to the implementation of the AA with the EU.

Methods

A comprehensive study of Ukraine's global competitive power in the framework of integration with the EU was conducted to empirically prove the relationship between Ukraine's participation in international economic integration and its global competitive power. The study indicated the need to analyse changes in Ukraine's national economic structure due to the reorientation to trade with the EU. Identifying Ukraine's sectoral comparative advantages in trade with the EU can help predict the mechanism for ensuring Ukraine's competitive power in the long run and determine whether a synergistic effect is being realised within the framework of Ukraine and the EU's integration. As a result, the index of the regional orientation of Ukraine for specific groups of goods and services was assessed.

The regional orientation index was calculated according to the formula:

$$RO = \frac{EX_{ktr} / EX_{kr}}{EX_{kt-r} / EX_{k-r}}; \quad (1)$$

where EX_{ktr} is the export of goods t by country k to region r ; EX_k is the total exports by country k to region r ; EX_{kt-r} is the export of goods t by country k to countries outside the region r ; and EX_{k-r} is the total exports by country k to countries outside the region r .

If the value of the index is more than 1, the country's exports tend to be relatively more oriented to this region than to other countries outside the region. Conversely, if the value of the index is less than 1, the country has no advantage in favour of the region in the export of goods. Thus, a country has revealed comparative advantages if the value of the index exceeds 1 and revealed comparative disadvantages if the value of the index is less than 1.

Results

The study of the mechanism of the AA between Ukraine and the EU showed that the provisions of the agreement determine the possibility of realising certain economic effects of the global competitive power of Ukraine, such as the probability of increasing the competitiveness of goods (competition effect) by reducing tariff barriers; increasing market size (economies of scale) due to preferential access to national markets of the developed European countries, the vast majority of which are leading players in world trade; and the likelihood of increasing Ukraine's attractiveness to European investors (due to regulatory approximation to the EU acquis).

Nowadays, the EU is one of Ukraine's main trading partners in goods and services. From 2013 to 2019, Ukraine had a negative balance of trade in goods, but this balance improved after the signing of the AA. At the same time, the export of goods to EU countries was growing. In 2020, there was a general decrease in the trade in goods between Ukraine and the EU (by 14.4% compared to 2019) as well as a general decrease in the trade in services (by 13.2% compared to 2019).

Among EU countries, Ukraine imports most from Poland, Italy and France, and exports to Poland, Italy and Germany. In general, Ukraine had a positive balance of trade in goods with EU countries such as Belgium, Bulgaria, Italy, Spain, Cyprus, Latvia, Malta, the Netherlands, Portugal, Romania, Slovakia and Hungary. It had a negative trade balance with the rest of the EU.

As a result of the choice of the European vector of integration, the commodity structure of trade in Ukraine was reoriented. Thus, since 2015, there has been a decrease in the export of mineral products, chemical products and related industries; pulp of wood or other fibrous cellulosic materials, base metals and articles thereof; and machinery, equipment and electrical equipment. At the same time, export grew in the sector of vegetable products, fats and oils. The largest increase in Ukraine's exports to the EU took place in the sectors of vegetable products and fats and oils of animal and vegetable origin.

These trends confirm the negative static effects of trade reduction resulting from the reorientation from the eastern vector to the European one. In addition, such trends determine the reduction of Ukraine's global competitive power in industry and a new vector of Ukraine's competitive power and the possibility of its implementation in the agricultural sector.

In recent years, the reorientation of trade in services in the European direction was fixed. In 2019, Ukraine's export of goods to EU countries increased by 7.7%. The import of services from the EU increased by 6.2% in 2019. The directions of Ukraine's reorientation to exports of services from 2013 to 2019 are shown in Table 1. Table 2 shows the export structure of Ukraine's trade in services with the EU from 2013 to 2019 and its share in the general structure of Ukraine's export of services. The leading European exporters of services to Ukraine were Germany, Great Britain, Cyprus and Poland.

Table 1. Reorientation of the export of services from Ukraine during 2013–2019 (in USD millions)

	Total	CIS countries	EU countries	Asia	Africa	America
Export						
2013	14,233.2	5,814.9	4,195.7	1,427.0	153.0	1,581.9
2014	11,520.8	4,034.3	3,991.6	1,350.7	131.3	1,242.8
2015	97,36.6	3,544.8	2,927.9	1,120.3	145.1	1,134.7
2016	9,868.0	3,727.9	3,004.9	1,154.5	125.1	1,132.9
2017	10,714.3	3,763.9	3,452.7	1,301.9	149.3	1,184.8
2018	11,637.9	3,701.3	3,979.9	1,480.9	161.4	1,338.2
2019	15,628.9	...	4,469.0	1,951.3	178.6	1,631.9
Import						
2013	7,523.0	1,466.5	4,212.0	1,585.1	35.1	580.4
2014	6,373.1	1,204.0	3,148.8	920.8	44.3	694.8
2015	5,523.0	839.6	2,750.1	850.9	39.4	609.7
2016	5,326.5	672.6	2,421.6	888.8	40.7	773.4
2017	5,476.1	650.4	2,532.5	1,086.3	80.8	724.9
2018	6,308.8	688.5	3,355.8	1,334.7	155.8	535.5
2019	6,942.2	...	3,728.9	1,613.3	207.9	599.9

Source: Combined by authors based on data from SSSU (2021).

The structure of Ukraine's export of services and goods was in a state of turbulence from 2013 to 2019. However, service providers felt fewer shocks from the reorientation and, in 5 years, made up for the change and even increased exports in 2019.

Table 2. Ukraine's service export structure in 2013–2019 (in million USD)

Groups of services	Total trade data				Trade with EU	
	2013	2015	2018	2019	2018	2019
	Export					
Material resources processing services	1,722.1	1,078.3	1,699.3	1,640.1	1,033.0	1,050.9
Repair and maintenance services not included in other categories	349.7	192.2	242.7	270.1	68.8	90.9
Transport services	7,981.8	5,263.2	5,851.4	9,109.9	1254.9	1,325.2
Travel services	358.1	200.9	298.9	335.0	57.9	56.4
Construction services	224.8	291.6	150.3	125.7	37.6	35.1
Insurance services	87.3	46.1	45.0	75.5	30.3	33.5
Financial services	337.8	190.8	107.5	133.6	60.8	81.6
Royalties and other services related to the use of intellectual property	97.4	51.0	42.8	55.4	17.3	32.7
Telecommunications, computer and information services	1,477.2	1,585.6	2,115.0	2,575.9	806.4	992.6
Business services	1,543.8	816.7	1,060.7	1,278.2	515.7	572.3
Services for individuals, cultural and recreational services	36.0	15.8	19.1	21.6	14.7	12.3
Government services	17.2	4.3	5.2	7.7	3.0	4.5
Total	14,233.2	9,736.7	11,638.0	15,628.9	3,900.2	4,288.0

Source: Combined by authors based on data from SSSU (2021).

This positive trend can be observed in the export of services for the processing of material resources, transport services, services in the field of telecommunications and information, and business services. Compared to 2013, all these sectors are characterized by a significant decline in exports in 2015 and a recovery (and sometimes even an increase) in 2019. In addition, exports of services to the EU increased in almost all sectors in 2019 compared to 2018.

The armed conflict of 2022 radically changed the structure of Ukraine's foreign trade. At the same time, almost half of Ukraine's trade turnover (49.9%) currently falls on the EU, which has significantly increased its importance for Ukraine's foreign trade. The export and import of goods showed an almost uniform reduction (by 20%), leading the trade balance to remain negative in the amount of about USD 1 billion. However, with a 19.9% decrease in the value volume of merchandise turnover, physical volume decreased by 32.3%, which indicates an increase in world prices for the leading foreign trade goods of Ukraine.

The reduction in exports is based on a decrease in supplies of metals and their products, mineral products, food and agricultural products, machines, equipment and transport. At the same time, there was a slight increase in the export of fuel and energy products, as well as wood and pulp and paper products (by 2.6%). Such changes caused an increase in the food and agricultural sector's share in the commodity structure of Ukrainian exports (from 37.5% to 44%), while the share of metals and products decreased.

The European orientation of Ukraine's foreign trade defines new requirements for doing business, including forming partnerships with various organisations in the EU. Therefore, it is beneficial to determine whether these countries are "natural trading partners".

The complementarity index of Ukrainian–European trade relations was assessed by Shnyrkov and Pliushch (2020) in their study, in which the authors calculated the complementarity index of trade between Ukraine and the EU for 97 product groups during the period 2011–2018, and then, using a linear regression model, forecast the complementarity of the product structures of Ukraine and the EU for 2019 and 2020.

The calculations indicated that Ukraine and the European Union are real trading partners. In 2018, European exports served the needs of the Ukrainian market by 72.72%, and Ukrainian exports served the needs of the EU market in goods by 79.19%. In 2019, the complementarity of Ukrainian exports was 82.7%, and in 2020, 84.11%. Furthermore, the complementarity of European exports to Ukrainian imports was forecasted at 70.71% in 2019 and 70.35% in 2020 (Shnyrkov & Pliushch 2020). The dynamics of the complementarity index, which have tended to increase gradually since the signing of the AA, indicate that the EU and Ukraine are real trading partners; their mutual trade in a free trade area is beneficial for both parties. The establishment of international partnerships between their enterprises and organisations can thus help strengthen the competitive power of both Ukraine and the EU.

Using formula 1 and the data in Table 2, the indices of the regional orientation of exports of goods and services from Ukraine to the EU in 2018–2019 were calculated. The results of the calculations are shown in Tables 3 and 4.

The analysis of the indices of the commodity orientation of Ukraine's exports to the EU shows that in 2018–2019, 9 of the 20 groups of goods had comparative advantages of regional orientation in the European market. Furthermore, the dynamics of the regional orientation indices show an increase in value in 10 out of the 20 groups, indicating the gradual realisation of the synergistic effect of the trade in goods between Ukraine and the EU.

The highest values of the indices are for raw hides and leather, wood and wood products, textile materials and products, footwear, hats, umbrellas and various industrial goods. Ukraine has the smallest comparative advantages of regional orientation in terms of the mass of wood, pearls and precious stones, land vehicles, aircraft, floating vehicles and optical instruments.

Table 3. Indices of the regional orientation of Ukraine's merchandise exports to the EU in 2018–2019

Groups of goods	2018	2019	Dynamic
I. Live animals, products of animal origin	0.6	0.5	↓
II. Products of plant origin	0.8	0.8	
III. Fats and oils of animal or vegetable origin	0.5	0.2	↓
IV. Completed food products	0.6	0.6	
V. Mineral products	2.2	1.8	↓
VI. Products of the chemical and allied industries	0.6	0.8	↑
VII. Polymeric materials, plastics and articles thereof	0.5	0.6	↑
VIII. Untreated leather, tanned leather	23.0	19.6	↓
IX. Wood and wood products	3.1	3.6	↑
X. Mass of wood or other fibrous cellulosic materials	0.3	0.5	↑
XI. Textile materials and products	6.8	7.1	↑
XII. Shoes, hats, umbrellas	6.7	8.3	↑
XIII. Products from stone, plaster and cement	1.3	1.6	↑
XIV. Natural or cultured pearls, precious or semi-precious stones	0.4	0.4	
XV. Base metals and articles thereof	0.8	0.8	
XVI. Machines, equipment and mechanisms; electrical equipment	2.1	2.4	↑
XVII. Land vehicles, aircraft and floating vehicles	0.4	0.4	
XVIII. Optical and photographic devices and apparatus	0.4	0.7	↑
XIX. Various industrial goods	2.1	6.2	↑
XX. Artworks	10.9	2.8	↓

Source: Combined by authors based on data from SSSU (2021).

Regarding the indices of the regional orientation of Ukraine's exports of services to the EU in 2018–2019, 8 of the 12 groups of services in 2018 and 10 of the 12 groups of services in 2019 had comparative advantages of regional orientation in the European market. In addition, 8 of the 12 groups of services showed an increase in the regional orientation index in 2019 compared to 2018, indicating a synergistic effect of trade between Ukraine and the EU.

Table 4. Indices of the regional orientation of exports of services from Ukraine to the EU in 2018–2019

Groups of services	2018	2019	Dynamic
Material resources processing services	3.0	4.7	↑
Repair and maintenance services not included in other categories	0.8	1.3	↑
Transport services	0.5	0.5	
Travel services	0.5	0.5	
Construction services	0.7	1.0	↑
Insurance services	4.1	2.1	↓
Financial services	2.6	4.2	↑
Royalties and other services related to the use of intellectual property	1.3	3.8	↑
Telecommunications, computer and information services	1.2	1.7	↑
Business services	1.9	2.1	↑
Services for individuals, cultural and recreational services	6.6	3.5	↓
Government services	2.7	3.7	↑

Source: Combined by authors based on data from SSSU (2021).

To continue analysing the impact of integration with the EU on Ukraine's global competitive power, the general state of implementation of the AA conditions and their impact on strengthening Ukraine's competitive power were considered. The status of compliance with the terms of the AA was analysed through an information and analytical system for monitoring the implementation of the AA "Pulse Agreement", which was introduced by the Government of Ukraine in 2017.

In 2019, 40% of the planned tasks of the year for implementing the AA were completed (EIP 2021). The progress of the annual commitments as of 2020 was 29%. The overall progress in the implementation of the AA for 2014–2024 is expected to be 52%. Its implementation by areas is shown in Table 5.

Table 5. Total progress in Ukraine's implementation of the AA by sphere, %

Sphere	2019	2020	Total*	Sphere	2019	2020	Total*
Justice, freedom, security, human rights	14	42	83	Entrepreneurship	79	32	79
Public health	35	36	41	Energy	44	27	37
Agriculture	64	25	36	Financial sector	26	0	30
Science, technology and innovation, space	61	16	38	Transport, transport infrastructure, postal and courier services	25	25	27
Public finance management	0	50	68	Customs issues	33	100	44
Sanitary and phytosanitary measures	43	7	53	Consumer protection	0	0	42
Technical barriers to trade	63	75	82	Political dialogue, national security, and defence	100	0	87
Taxation	62	33	60	Humanitarian policy	69	55	74
Education, training and youth	100	71	67	Government procurement	87	44	80
Statistics and information exchange	0	-	56	Social policy and labour relations	100	0	39
Environment and civil protection	28	19	47	Energy efficiency and housing	69	42	57
Financial cooperation and the fight against fraud	100	0	24	Intellectual property	–	–	22

* Total progress from 1 November 2014 to 31 October 2024.

Source: Combined by authors based on data from EIP (2021).

Ukraine has made some progress in removing technical barriers to trade. This is evidenced by the presentation in 2019 of new draft industry rules on the machine and electromagnetic safety compatibility with the European Commission. Parliament has also registered a bill on market surveillance and consumer protection, another unresolved requirement (Report 2019). In addition, in 2020, Ukraine became a full member of the International Organization of Legal Metrology. It signed the Metric Convention for full participation in the Agreement on Mutual Recognition of National Standards and Certificates of Calibration and Measurement issued by National Metrological Institutes.

These regulations will help eliminate duplicate regulatory regimes, which is a necessary step for further alignment with EU legislation, given the possible start of negotiations on a Conformity Assessment and Acceptance Agreement for Industrial Products. The convergence of Ukrainian

and European legislation in this regard can not only strengthen Ukraine's global competitive power in trade with the EU but also help simplify trade procedures with other countries, thus affecting Ukraine's competitive position on the world stage.

In autumn 2019, the EU approved a Comprehensive Strategy for Ukraine's implementation of the AA chapter on sanitary and phytosanitary measures. In 2020, low progress in meeting this requirement (7%) was shown. The agricultural goods sector is one of the leading sectors in trade between Ukraine and the EU. Accordingly, it is necessary to consider the prospects of increasing Ukraine's global competitive power in this sector, provided that the requirements are met.

Ukraine has also made significant progress in customs. In autumn 2019, new legislation was adopted. If successfully implemented, it paves the way for the mutual recognition of authorised economic operators from the EU and Ukraine's accession to two European customs conventions, thereby simplifying formalities in the trade in goods and creating a standard transit procedure. In addition, in 2020, Ukraine fulfilled 100% of the tasks for the year by developing and concluding a memorandum of cooperation between customs authorities and business entities. The simplification of customs formalities between the countries of the Deep and Comprehensive Free Trade Areas (DCFTA) should affect the mechanism of pricing and the implementation of Ukraine's pricing strategies in EU markets, which in turn can strengthen the competitive position of Ukrainian companies in European markets. Furthermore, this will lead to the implementation of EU companies' pricing strategies in the markets of Ukraine, which may result in the displacement of certain non-competitive Ukrainian enterprises from markets that focus on price-sensitive consumers.

Regarding financial services legislation, Ukraine has made some progress on current payments and capital movements, disclosure requirements for issuers of securities, and capital requirements in the banking sector. The Strategy for the Development of the Financial Sector of Ukraine until 2025 is currently being prepared. Its concept envisages the implementation of the norms of the EU *acquis* to ensure the internal market regime. However, this prospect remains uncertain, given the changes in EU regulation that have taken place since the conclusion of the AA negotiations. The content of the AA in this regard remains irrelevant. In addition, in 2019, the issue of ensuring the sustainability of recent reforms in the banking sector, including the nationalisation of Privatbank, became politically sensitive in the dialogue between the new government and the EU and the International Monetary Fund (EUEA 2020). Unfortunately, as of 2020, there had been no progress on regulatory convergence in this area.

Progress in the field of intellectual property rights has also been limited. Although some acts have already been adopted (for example, the improved protection of design rights for semiconductor integrated circuits), many bills submitted by the government under the reform package of intellectual property rights contain problematic provisions that the government must revise.

The unbundling of Naftogaz was completed by the end of 2019. Based on the decision of the Cabinet of Ministers on 18 September 2019, which defined a new model as an "independent system operator (ISO)", the new transmission system operator was transferred to the Ministry of Finance. Reforming the electricity sector remains challenging in the current oligopolistic market structure. According to EU law, the aim is to move from an over-regulated single-buyer model with cross-subsidies to a competitive market. Since 1 January 2019, the retail market has been open to large consumers.

Regarding renewable energy sources, Parliament adopted a new law on auctions to support renewable energy sources in April 2019, which was enacted in May of the same year. Investments in the sector, including European and foreign companies, continue at a high rate due to preferential tariffs. The share of electricity generated from renewable sources increased from below 2% in 2018 to 5% in mid-2019 (EUEA 2020).

However, Ukraine has not yet lifted the ban on exports of unprocessed timber, which contradicts the DCFTA, despite repeated requests from the EU, accompanied by specific proposals for forest conservation, and despite repeated attempts by the Ukrainian authorities to resolve the issue. Another trade barrier, the lack of a value-added tax (VAT) refund related to soybean and rapeseed exports, has also not been lifted. The EU and Ukraine have signed an amendment to the AA provisions on trade preferences for poultry meat and its preparation to introduce more predictable conditions to the bilateral trade in poultry products.

An important step in strengthening Ukraine's competitive power in EU markets – as well as among countries with which, according to integration agreements, the EU has a preferential trade regime – is Ukraine's participation in the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin. This document is signed by the European Free Trade Association (EFTA) countries (Iceland, Liechtenstein, Norway, Switzerland), as well as Albania, Algeria, Bosnia and Herzegovina, Georgia, Egypt, Israel, Jordan, Lebanon, Kosovo, Northern Macedonia, Morocco, Moldova, Palestine, Serbia, Tunisia, Turkey, Ukraine, the Faroe Islands and Montenegro. It is an instrument that establishes identical rules of origin for goods under free trade agreements concluded between its Contracting Parties. The Convention also fixes the so-called “diagonal cumulation principle”, which allows the application of common rules of origin for more than two countries if they have preferential agreements containing the same rules of origin and cumulation provisions (Rules 2020).

Ukraine's participation in the Convention expands its preferential export opportunities and realises its comparative advantages in the value chains. In practice, this strengthens Ukraine's global competitive power in the EU markets and the markets with which the EU has preferential trade agreements, in the EFTA markets and the markets of countries with which the EFTA has preferential trade agreements, and in the markets of Moldova, Georgia and their trading partners.

Thus, Ukraine adheres to its commitments under the AA. Considering Ukraine's achievements in terms of implementing the provisions of the DCFTA to increase its global competitive power, Ukraine's progress contributes to a coordinated economic policy of the member states.

Moreover, the gradual progress in meeting the conditions under the AA directly affects the overall dynamics of Ukraine's global competitive power, and the steps taken by Ukraine to adopt the EU *acquis* correlate with the increase in Ukraine's global competitive power index according to the WEF (Verhun, Zayats & Pryiatelchuk 2020). The comparison of Ukraine's global competitive power dynamics with the overall process of AA implementation is presented in Table 6.

Table 6. Comparison of the dynamics of Ukraine's global competitive power, based on WEF criteria, with the overall process of the AA implementation

WEF criteria	WEF rating		Dynamics	Sphere of the AA	Progress of implementation, %	Dynamic
	2018	2019				
Institutions	110	104	↑	Justice, freedom, security, human rights	83	↑
				Intellectual property	22	–
Infrastructure	57	57	–	Transport, transport infrastructure, postal and courier services	27	–
				The energy efficiency of housing and communal services	57	↓
Health	94	101	↓	Public health	36	↑
Qualification	46	44	↑	Education, training and youth	67	↑
Goods and services markets	73	57	↑	Taxation	60	↓
				Sanitary and phytosanitary measures	53	↓
				Technical barriers in trade	82	↑
				Entrepreneurship	79	↓
				Customs issues	44	↑
Financial system	117	136	↓	Financial cooperation, fight against fraud	24	↓
				Financial sector	30	↓
Innovative potential	58	60	↓	Science, technology and innovation, space	38	↓

Source: Combined by authors based on Zayats (2020).

Comparing the data on the dynamics of Ukraine's global competitive power, based on WEF criteria, with the overall process of implementing the AA, we can conclude that the progress of the AA implementation directly affects Ukraine's competitive power as measured by the WEF criteria. Interdependence has been established for 6 of the 7 WEF criteria. The other 5 criteria, which are not shown in Table 6, do not pertain to the commitments made by Ukraine in the framework of EU integration.

Conclusions

The study aimed to establish and measure the impact of international economic integration on Ukraine's global competitive power and identify areas that lead to the growth of Ukraine's competitive power. The critical contribution of this work is the analysis of Ukraine's participation IIAs, as it reveals the impact of integration on Ukraine's global competitive power. The paper's findings contribute to economic science in the field regarding the proper integration directions of Ukraine. The results of the literature review and the empirical analysis of data demonstrated that Ukraine's integration with the EU will eventually increase Ukraine's global competitive power.

The results of this study suggest that an important factor influencing the strength of Ukraine's global competitive power in the context of EU integration is its preferential access to the markets of 28 European countries and, using the principle of diagonal cumulation, to the markets of 98 countries with which the EU has preferential trade agreements. The possibility of such preferential exports strengthens the potential for realizing the comparative advantages of Ukraine as an exporter of finished products and a participant in value chains.

Second, the study also showed that a factor that strengthens Ukraine's global competitive power is its progress in fulfilling the terms of the AA and the gradual convergence of Ukraine's regulatory framework with the EU acquis. A comparison of the dynamics of Ukraine's global competitive power, based on WEF criteria, with the overall implementation process of the AA shows the interdependence between these indicators. Accordingly, the acceleration of progress in meeting the conditions of the AA will increase Ukraine's competitive power.

Therefore, the study argues that static integration effects resulting from competition, trade reorientation and the reallocation of production resources cannot be assessed unambiguously. In terms of preferential trade with the EU, Ukrainian producers often lose in competition with European ones, export to the EU consists mainly of goods with a low degree of processing, and, during the years of AA implementation, trade has not yet fully reoriented to EU markets (especially trade in goods). To accelerate the growth of exports, in the face of increasing competition from EU producers, Ukraine should improve the quality and standards of its products, increase the processing of raw materials and semi-finished products, and create added value in Ukrainian production.

Currently, Ukraine has fulfilled its obligations related to the AA with the EU by 70%. By the end of 2022, Parliament must adopt the necessary package of laws to start negotiations on Ukraine's accession to the EU. This will significantly deepen cooperation between Ukraine and the EU and expand and qualitatively increase the implementation of the steps of the AA.

References

- Alves, A., Brousseau, E., and Yu-CheongYeung, T., 2021, 'The dynamic of institution building: State aids, the European Commission, and the court of justice of the European Union', *Journal of Comparative Economics*, 49(3), 836–859. DOI: <https://doi.org/10.1016/j.jce.2021.02.001>
- Annoni, P., and Dijkstra, L., 2019, 'The EU competitiveness report 2019'. Available at: https://ec.europa.eu/regional_policy/sources/docgener/work/2019_03_rci2019.pdf (accessed: 15.04.2022).
- Arribas, I., Bensassi, S., and Tortosa-Ausina, E., 2020, 'Trade integration in the European Union: Openness, interconnectedness, and distance', *The North American Journal of Economics and Finance*, 52, April, 101162. DOI: <https://doi.org/10.1016/j.najef.2020.101167>
- Association Agreement Between Ukraine and EU (AA), 2014. Available at: <https://www.kmu.gov.ua/en/yevropejska-integraciya/ugoda-pro-asociacyu> (accessed: 15.02.2022).

- Beck, K., 2021, 'Why business cycles diverge? Structural evidence from the European Union', *Journal of Economic Dynamics and Control*, 133, December, 104263. DOI: <https://doi.org/10.1016/j.jedc.2021.104263>
- Bolea, L., Duarte, R., Hewings, G., and Sanchez-Choiz, J., 2021, 'Disintegration scenarios in the European Union: A case study of Eastern European economies', *Economic Modelling*, 95, 1–12. DOI: <https://doi.org/10.1016/j.econmod.2020.11.015>
- Burger, M., Wall, R., and van der Knaap, B., 2013, 'Revealed competition for greenfield investments between European regions', *Journal of Economic Geography*, 13(4), 619–648. DOI: <https://doi.org/10.1093/jeg/lbs024>
- Campos, N., Coricelli, F., and Moretti, L., 2019, 'Institutional integration and economic growth in Europe', *Journal of Monetary Economics*, 103, 88–104. DOI: <https://doi.org/10.1016/j.jmoneco.2018.08.001>
- Cann, O., 2016, 'What is competitiveness?' *World Economic Forum*. Available at: <https://www.weforum.org/agenda/2016/09/what-is-competitiveness/> (accessed: 15.02.2022).
- Cernescu, L., Bitea, C., and Dungan, L., 2018, 'The analysis of the Romanian global competitiveness international ranking', *The Impact of the IEC Program. Procedia – Social and Behavioral Sciences*, 238, 517–526. DOI: <https://doi.org/10.1016/j.sbspro.2018.04.031>
- Cutrini, E., 2019, 'Economic integration, structural change, and uneven development in the European Union', *Structural Change and Economic Dynamics*, 50, 102–113. DOI: <https://doi.org/10.1016/j.strueco.2019.06.007>
- European Commission, 2019, 'Cluster programmes in Europe and beyond'. Available at: <https://www.eu-cluster2019.eu/files/events/4538/files/eocic-cluster-programme-report.pdf> (accessed: 15.02.2022).
- European Integration Portal, 2021, 'Areas of the Association Agreement – Progress in implementation'. Available at: <https://pulse.eu-ua.org/> (accessed: 17.02.2022)
- European Union External Action, 2020, 'Association implementation report on Ukraine 2019'. Available at: https://eu-ua.org/sites/default/files/inline/files/ar_aa_implementation-2019-4_eng.pdf (accessed: 13.02.2022).
- Gavurova, B., Privara, A., Janikova, J., and Kovac, V., 2021, 'Quantification of tourism sector parameters related to competitiveness of countries according to macroeconomic indicators', *Journal of Competitiveness*, 13(3), 56–72. <https://doi.org/10.7441/joc.2021.03.04>
- Gibert, J., and Muchova, E., 2018, 'Export competitiveness of Central and Eastern Europe since the enlargement of the EU', *International Review of Economics & Finance*, 55, 78–85. <https://doi.org/10.1016/j.iref.2018.01.008>
- Glawe, L., and Wagner, H., 2021, 'Convergence, divergence, or multiple steady states? New evidence on the institutional development within the European Union', *Journal of Comparative Economics*, 49(3), 860–884. DOI: <https://doi.org/10.1016/j.jce.2021.01.006>
- Karreman, B., Burger, M., and Eenennaam, F., 2019, 'Revealed competition between cluster organizations: An exploratory analysis of the European life sciences sector'. *EPA: Economy and Space*, 51, 705–723. DOI: <https://doi.org/10.1177/0308518X18802325>
- Latorre, M., Oleksyuk, Z., Hidemichi, Y., and Sherman, R., 2019, 'Making sense of Brexit losses: An in-depth review of macroeconomic studies', *Economic Modelling*, 89, 72–87. DOI: <https://doi.org/10.1016/j.econmod.2019.10.009>
- Nguyen, S., and Wu, Y., 2021, 'Patterns of network trade: A comparison between East Asia and European Union', *Asia and the Global Economy*, 1(2), 100011. DOI: <https://doi.org/10.1016/j.aglobe.2021.100011>
- Orlowski, L., 2020, 'Capital markets integration and economic growth in the European Union', *Journal of Policy Modeling*, 42(4), 893–902. DOI: <https://doi.org/10.1016/j.jpolmod.2020.03.012>
- Palinchak, M., Zayats, O., and Bokoch, V., 2020, 'The APEC Integrated Competitive Power Index', *Baltic Journal of Economic Studies*, 6(4), 118–124. DOI: <https://doi.org/10.30525/2256-0742/2020-6-4-118-124>
- Plakandaras, V., Kumar Tiwari, A., Gupta, R., and Qiang, Ji, 2020, 'Spillover of sentiment in the European Union: Evidence from time- and frequency-domains', *International Review of Economics & Finance*, 68, 105–130. DOI: <https://doi.org/10.1016/j.iref.2020.03.014>
- Pryiatelchuk, O., Hrysenko, M., and Shvorak, L., 2019, 'Modeling of state socio-economic systems in the countries of the European region', *Problems and Perspectives in Management*, 17(3), 452–463. [http://dx.doi.org/10.21511/ppm.17\(3\).2019.36](http://dx.doi.org/10.21511/ppm.17(3).2019.36)
- Regional Trade Agreement Database, 2020. Available at: <https://rtais.wto.org/UI/CRShowRTAIDCard.aspx> (accessed: 12.03.2022).

- Report on Implementation of the Association Agreement Between Ukraine and the European Union in 2019: Results and Plans. Available at: https://eu-ua.org/sites/default/files/inline/files/ar_aa_implementation-2019-4_eng.pdf (accessed: 13.03.2022).
- Schwab, K., 2020, 'The Global Competitiveness Report 2019. World Economic Forum'. Available at: http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf (accessed: 13.03.2022).
- Simionescu, M., Pelinescu, E., Khouri, S., and Bilan, S., 2021, 'The main drivers of competitiveness in the EU-28 Countries', *Journal of Competitiveness*, 13(1), 129–145. DOI: <https://doi.org/10.7441/joc.2021.01.08>
- Shaping a Multiconceptual World 2020. Special Report*, 2020. Available at: http://www3.weforum.org/docs/WEF_Shaping_a_Multiconceptual_World_2020.pdf (accessed: 13.02.2022).
- Shnyrkov, O., and Pliushch, D., 2020, 'Quantitative analysis of complementarity of trade between Ukraine and EU countries', *Actual Issues of International Relations*, 141, 89–97.
- Shulga, D., Betly, O., Butin, A., Kosse, I., Kravchuk, V., Lutsenko, D., Nochai, V., Oleksiuk, L., and Prykhodko, O., 2019, *Integration Within Association: Implementation Dynamics of the EU–Ukraine Agreement*. Available at: https://www.civic-synergy.org.ua/wp-content/uploads/2018/04/Integration-within-Association_Implementation-Dynamics-of-the-EU-Ukraine-Agreement-3rd-edition_web.pdf (accessed: 15.02.2022).
- State Statistics Service of Ukraine (SSSU), 2021. Available at: <http://www.ukrstat.gov.ua/> (accessed: 13.02.2022).
- Stojcic, N., Vojinic, P., and Aralica, Z., 2018, 'Trade liberalization and export transformation in new EU member states', *Structural Change and Economic Dynamics*, 47, 114–126. DOI: <https://doi.org/10.1016/j.strueco.2018.08.004>
- Szczepański, M., 2019, 'EU competition policy: Key to a fair single market'. Available at: [https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/642209/EPRS_IDA\(2019\)642209_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/642209/EPRS_IDA(2019)642209_EN.pdf) (accessed: 15.02.2022).
- The European Court of Auditors, 2018, 'Enforcement of EU competition policy'. Available at: https://www.eca.europa.eu/Lists/ECADocuments/BP_COMPETITION/BP_COMPETITION_EN.pdf (accessed: 14.02.2022).
- Ukraine's Participation in the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin (Rules), 2020. Retrieved from <https://www.me.gov.ua/Documents/Detail?lang=uk-UA&id=342ec84c-4bc4-4a6c-8cda-b9a258055bef&title=UchastUkraini> (accessed: 15.02.2022).
- Verhun, V., Zayats, O., and Pryiatelchuk, O., 2020, 'Competitive features of country associations based on the Global Competitiveness Index: The case of the United States – Mexico – Canada Agreement', *Problems and Perspectives in Management*, 18(4), 181–190. DOI: [http://dx.doi.org/10.21511/ppm.18\(4\).2020.16](http://dx.doi.org/10.21511/ppm.18(4).2020.16)
- Veld, J., 2019, 'The economic benefits of the EU Single Market in goods and services', *Journal of Policy Modeling*, 41, 803–818. DOI: <https://doi.org/10.1016/j.jpolmod.2019.06.004>
- Zayats, O., 2020, 'Competitive status of Ukraine', *Interscience*, 9(41), 55–62. DOI: <https://doi.org/10.25313/2520-2294-2020-9>
- Zayats, O., 2020, 'The EU Global Competitive Power Index', *Economic Annals-XXI*, 183, 17–25. DOI: <https://doi.org/10.21003/ea.V183-02>

Social Partnership on Wage Regulation in Ukraine's Public Sector

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Abstract

In the face of constant pandemic-related and military threats to citizens' right to work, collective bargaining has become almost the only real instrument to reconcile the interests of social partners and consolidate their efforts. The authors proposed a methodology for assessing the development of social partnership in the regulation of labour remuneration based on a set of indicators and a comparative analysis of the indicators in several public organisations: the State Audit Service of Ukraine, the State Treasury Service of Ukraine, the State Statistics Service of Ukraine, the State Fiscal Service of Ukraine, the Armed Forces of Ukraine, the State Border Guard Service of Ukraine, the Police of Ukraine, and the Pension Fund of Ukraine. Based on the challenges and general trends revealed by the results of the analysis, the authors identified areas for improving collective wage bargaining and the best practices in social partnership for their dissemination in public organisations.

Keywords

social partnership, social dialogue, collective bargaining, labour remuneration, sectoral agreements

Introduction

Social partnership is the most effective form of building industrial relations because it ensures the alignment of partners' interests, achieving social harmony and ensuring equality. Social partnership is the basis for building a democratic society, as well as an effective means of implementing social policy and reducing social conflicts.

Research results reveal the positive impact of social partnership and dialogue on economic growth (Uhlerová 2020), sustainable development (ILO 2017; Galgóczi 2020), working conditions, occupational safety and health (Lethbridge 2016; Obisi 2016; Kovač 2017), decent work (Tsymbaliuk et al. 2022), vocational training policy (Winterton 2006), and policies of diversity management (Cornet & Fatoux 2017).

Social dialogue contributes to the various objectives of sustainable development by improving working conditions, workers' rights, and equality at work; guaranteeing access to public services and redistribution; encouraging growth and innovation; supporting the environment and climate; and improving governance and participation (ILO 2017).

By analysing the social and labour relations in Ukraine, the practice of conducting social dialogue, the role of various parties in social partnership, and the structure and content of collective agreements, we can conclude that despite the common practice of conducting negotiations and concluding agreements, the institution of social partnership is only in its initial stage. Currently, social partnership is characterised by the underdevelopment of institutional features, and there are several problems in the negotiation process. For example, trade unions are weak as the representatives and defenders of employees' interests, and the state fails to fulfil its functions in the social partnership.

In Ukraine, the proportion of employees covered by collective agreements has declined. In 2008, 83.4% of employees were covered by collective agreements; in 2021, this indicator had

fallen to 70.2%. However, this level is still high compared to other countries due to the mandatory conclusion of a collective agreement at the industrial level.

It should be noted that the norms of Ukrainian labour legislation, particularly regarding social dialogue and the conclusion of collective agreements, apply to the labour relations of all enterprises, institutions, and organisations, regardless of the forms of ownership, type of activity, and sector of the economy. These norms apply to labour relations in the public sector as well. However, the Law of Ukraine “On Trade Unions, Their Rights and Guarantees of Activity” has some features in certain state bodies, particularly in the Armed Forces and the Police of Ukraine.

In Ukraine, collective agreements are concluded at various levels: national, regional, sectoral, and industrial (organisational). The conclusion of a collective agreement is mandatory only at the industrial level.

According to Article 4 of the Law of Ukraine “On Social Dialogue in Ukraine” (Parliament of Ukraine 2011), social dialogue can be implemented on a tripartite or bilateral basis. In the vast majority of private sectors of the economy, tripartism dominates. In the public sectors of the economy, social dialogue is implemented on a bilateral basis.

For social dialogue in the public sector, the state, represented by public authorities, acts as an employer. The employer role makes it impossible for the state to effectively perform other functions as an arbitrator, mediator, conciliator, and guarantor of the rights and freedoms of members of society. Therefore, it negatively affects social partnership and the participation of employees in social dialogue, as the state, in most cases, aims to protect its interests as an employer.

Employees' low level of trust in Ukrainian trade unions to represent their interests is not conducive to the development of social partnership and dialogue. According to a survey conducted by the Razumkov Center in March 2021, only 26.7% of respondents trust the unions, while 49.9% of respondents do not (Razumkov Center 2021).

The purpose of the study is to develop a method for assessing the development of social partnership in the regulation of labour remuneration (DSPRLR), evaluate the DSPRLR in the public sector in Ukraine, and determine the best practices in social partnership for their dissemination in public institutions and organisations.

Special attention was paid to structures that provide national defence (Armed Forces of Ukraine, State Border Guard Service of Ukraine, and Police of Ukraine), which are crucial in the current conditions of war. Thus, the employees of these structures, especially soldiers, must be protected by the state (as an employer). The state must ensure well-being, social security and other guarantees to employees and their families.

Literature review

The study of social partnership in different European countries indicates that social dialogue is an essential instrument for innovative and healthy organisations (Euwema et al. 2015). For example, some research results confirm the positive impact of social dialogue and trade unions on wages and social security (Anzia and Moe 2015; Frandsen 2015; Hamermesh 2015; Hayter 2015; Riccucci et al. 2019), as well as reducing inequalities in wages and the gender pay gap (Card et al. 2020), including in the public sector (Antonie et al. 2015; Anastasiade and Tillé 2017; Yang and Jeong 2020). Comparative study results of the wage-bargaining systems in Belgium, Germany and the Netherlands find that calibration is an essential component of wage-bargaining systems, while greater subtlety is necessary concerning the role of the state (Dumka 2016).

Despite the positive impact of social dialogue and trade unions on economic growth, sustainable development, and the well-being of employees, research (Prosser and Perin 2015; Badigannavar 2017; Tsymbaliuk et al. 2019) shows a weakening of the role of social dialogue and trade unions in the regulation of industrial relations. Among the shortcomings of social partnership and dialogue, scientists distinguish legislation limitations and a lack of social dialogue traditions (Vallasek 2019), declining union density (Bernaciak 2015), and the existence of various national cultures in multinational companies (Buchner and Ilieva 2017).

Ukrainian scientists (Kolot 2018; Motsna 2019; Danylevych and Poplavska 2020) identify several problems inherent in social and labour relations and social partnership in Ukraine. These include

the dominance of paternalistic attitudes in the minds of Ukrainian citizens, the formal nature of the collective bargaining process, the dominance of employers in collective negotiations, and the low responsibility of social partners.

The primary problem that hinders social partnership is the low level of efficiency and trust in trade unions, which is observed not only in Ukraine but in various European countries as well, such as Great Britain (Heery 2002), Poland (Bernaciak 2017), Ireland, and Italy (Culpepper and Regan 2014).

The plethora of tripartite bodies in post-communist countries seems to suggest the development of a specific variant of East European corporatism. Analysis of the arrangements indicates that there is instead a prevalence of illusory corporatism. Nominal negotiations, non-mandatory agreements, and the elimination of most of the private sector from collective bargaining demonstrate that tripartite procedures are deployed to introduce neoliberal – not social democratic – outcomes (Ost 2000).

Despite the significant research interest in social dialogue's role in economic growth and sustainable development, tools and techniques for assessing social partnership and dialogue using quantitative methods remain underdeveloped.

To build typologies of industrial relations systems and labour markets in the European Union, Gardawski and Towalski (2019) use variables such as collective agreement coverage, trade union density, and government intervention in the sphere of industrial relations. Among indicators for assessing social partnership, Danylevych and Poplavska (2020) suggest considering wage potential to ensure not only the reproduction of labour but also professional development and the improvement of the quality of human capital.

A significant number of researchers (Marconi 2004; Depalo, Giordano and Papapetrou 2015; Gomes 2015; Morikawa 2016; Mahuteau et al. 2017; Vilerts 2018; Rattso and Stokke 2019; Michael and Christofides 2020) examine wage differences in the public and private sectors of the economy. Some studies show that the average hourly wages in the public sector are higher than those in the private sector (Mahuteau et al. 2017), and wage gaps by gender and education are smaller in the public sector than in private companies (Morikawa 2016). Some research on wages in the public sector reveals that wage increases for public officials can reduce corruption (Chen and Liu 2018; Cornell and Sundell 2020; Demirgüç-Kunt et al. 2021).

Some research on social partnership in the public sector shows changes in the characteristics of the social partners, objectives, and strategies; social dialogue structures and processes (Ramos Martin 2018); growing challenges and shrinking opportunities for unions (Kearney and Mareschal 2017); and the insufficient process of social dialogue (Paunović et al. 2016).

It should be noted that the specifics of industrial relations and social partnership in the public sector, including wage regulation, remain inadequately studied.

Methodology

To assess the DSPRLR, a set of indicators with standards has been proposed (Table 1).

An expert method was used to verify the reliability of the indicators. In February 2021, an expert survey was conducted among scientists and specialists in industrial relations. Table 2 contains the main characteristics of the 13 experts that participated in the survey, which was conducted in the form of a questionnaire. Experts had to establish the significance of indicators on a scale from 0 to 7.3 scores were required for the indicators to remain in the list. None of indicators was eliminated due to the survey.

Table 1. The indicators of the DSPRLR

Indicator	Standard
1. Existence of the sectoral agreement	yes
2. Timeliness of concluding a sectoral agreement	yes
3. Identification of officials responsible for the implementation of the provisions of the sectoral agreement	yes
4. Settlement of labour remuneration issues during collective bargaining under the legislation, %	→ max (100)
5. Number of social partners' obligations on labour remuneration	→ max
6. The ratio of the number of social partners' obligations on labour remuneration under the current sectoral agreement compared to the number of obligations under the previous ones, %	→ max (≥100)
7. The ratio of the number of provisions of the sectoral agreement on labour remuneration, which contain specific obligations, to the total number of obligations on labour remuneration, %	→ max (100)
8. The ratio of the basic wage of the worker of the 1st category and the minimum wage provided by law, %	→ max (≥110)
9. The ratio of the 6-category tariff scale for workers	[2, 3]
10. The ratio of salaries of top managers and technical staff following the scheme of salaries	[4, 12]
11. The ratio between the salaries of professionals, specialists, and technical staff of two neighbouring categories, %	[10, 30]
12. The use of analytical methods for evaluating positions and jobs during the development of tariff conditions	yes
13. The use of flexible remuneration models	yes
14. Compliance of the list, amount, and procedure for payment of additional rewards and increases to legal norms and norms of the general agreement	yes
15. Existence of provisions on the introduction of personnel participation systems in the distribution of profits	yes
16. Existence of provisions for the introduction of social packages	yes
17. Existence of provisions for the introduction of social insurance programmes	yes
18. Existence of provisions on gender equality in labour remuneration	yes

Source: own elaboration.

A method for assessing the unit and complex indices of the DSPRLR at the sectoral level has been developed.

Unit indices (I_i) for indicators for which the established standards are either met ("yes") or not are determined in the following order:

- If the actual value of an indicator corresponds to the standard, the unit index (I_i) is equal to 1;
- If the actual value of an indicator does not meet the standard, the unit index (I_i) is equal to 0.

For the rest of the indicators, the unit indices (I_i) are determined based on the standardisation procedure according to the formula:

$$I_i = \frac{[X_{actual} - X_{min}]}{[X_{max} - X_{min}]}, \quad (1)$$

where X_{actual} is the actual value of the indicator achieved in a particular sector of the economy; X_{min} is the lowest value for the indicator among the studied sectors of the economy; and X_{max} is the highest value for the indicator among the studied sectors of the economy.

The complex index of the DSPRLR at the sectoral level (K) is determined by the formula:

$$K = \frac{\sum_{i=1}^n I_i}{n}, \quad (2)$$

where n is the number of indicators.

The value of the complex indicator can be in the range of 0 to 1. The ranges of the assessments are:

$$\text{If } K \in \begin{Bmatrix} [0.8; 1] \\ [0.6; 0.8] \\ [0.4; 0.6] \\ [0.2; 0.4] \\ [0; 0.2] \end{Bmatrix}, K \in \begin{Bmatrix} \text{high level} \\ \text{higher than average level} \\ \text{average level} \\ \text{lower than average level} \\ \text{low level} \end{Bmatrix} \quad (3)$$

Table 2. Characteristics of experts

Characteristic	Number of experts
<i>Profession</i>	
• Teacher	8
• Scientist	3
• Specialist	2
<i>Total</i>	<i>13</i>
<i>Academic status</i>	
• Professor	3
• Associate Professor	6
• None	4
<i>Total</i>	<i>13</i>
<i>Degree</i>	
• Doctor of sciences	5
• PhD	6
• None	2
<i>Total</i>	<i>13</i>
<i>Work experience</i>	
• 10 to 20 years	6
• More than 20 years	7
<i>Total</i>	<i>13</i>

Source: Own elaboration.

A comparative analysis of the DSPRLR was carried out on the following services and public administration bodies: the State Audit Service of Ukraine, the State Treasury Service of Ukraine, the State Statistics Service of Ukraine, the State Fiscal Service of Ukraine, the Armed Forces of Ukraine, the State Border Guard Service of Ukraine, the Police of Ukraine, and the Pension Fund of Ukraine.

The criteria for forming the sample of services and bodies were the availability of concluded sectoral agreements and the representation of services and public administration bodies belonging to different classes under the Classification of Economic Activities CEA-2010. The State Audit Service of Ukraine, the State Treasury Service of Ukraine, the State Statistics Service of Ukraine, and the State Fiscal Service of Ukraine belong to Class 84.11, "State Administration of General Nature". The Armed Forces of Ukraine belong to Class 84.22, "Activities in the Field of Defence", and the State Border Guard Service of Ukraine and the Police of Ukraine belong to Class 84.24, "Activities in the Field of Public Order and Security". Finally, the Pension Fund of Ukraine belongs to Class 84.30, "Activities in the Field of Compulsory Social Insurance".

Analysis of the nature of collective agreements in the public sector

The core indicator of assessing the DSPRLR is the *existence of a sectoral agreement*. As previously noted, one of the criteria for forming the study sample was the presence of concluded sectoral agreements. According to this criterion, all surveyed services and bodies meet the established standard, as they have the following sectoral agreements:

- Sectoral agreement of the State Audit Service of Ukraine for 2017–2021;
- Sectoral agreement of the State Treasury Service of Ukraine for 2016–2020;
- Sectoral agreement of the State Statistics Service of Ukraine for 2020–2022;
- Sectoral agreement of the State Fiscal Service of Ukraine for 2018–2020;
- Sectoral agreement of the Armed Forces of Ukraine for 2019–2023;
- Sectoral agreement of the State Border Guard Service of Ukraine for 2018–2020;
- Sectoral agreement of the Police of Ukraine for 2019–2021;
- Sectoral agreement of the Pension Fund of Ukraine for 2016–2020.

The analysis of the sectoral agreements showed that some are regulations (the sectoral agreements of the Armed Forces and the Pension Fund of Ukraine) and some are acts of social partnership (the sectoral agreements of the State Audit Service, the State Treasury Service, and the State Statistics Service of Ukraine).

The recognition of the sectoral agreements as regulations and acts of social partnership can be considered a positive practice in terms of determining the legal nature of these agreements. At the same time, the norms and provisions of sectoral agreements do not apply to organisations and institutions that did not participate in the negotiation process and signing of agreements, per Article 9 of the Law of Ukraine “On Collective Bargaining and Agreements” (Parliament of Ukraine 1993). Thus, despite the social partners’ recognition of sectoral agreements as regulations and acts of social partnership, they cannot be considered as such, as their rules and regulations are not binding on all organisations belonging to a particular sector.

The next indicator for assessing the DSPRLR is *the timeliness of concluding a sectoral agreement*. Among the surveyed services and public administration bodies, only four (50%) have sectoral agreements that have not yet expired at the time of research. This may indicate difficulties in reaching joint agreements between the social partners on some issues, such as remuneration.

It is common practice to extend collective agreements that have already expired, although some provisions are outdated and do not correspond to current socioeconomic realities, especially in a situation with military and quarantine restrictions and the necessity of providing occupational safety. This practice thus negatively characterises collective bargaining and does not contribute to the development of social partnership and dialogue.

The next indicator for assessing the DSPRLR is *the identification of officials responsible for the implementation of the provisions of the sectoral agreement*. This indicator is important because the absence of responsible persons leads to non-compliance with the norms of the sectoral agreement. As a result, even the best obligations lose their effectiveness, which reduces partners’ confidence in social partnership as a tool for regulating industrial relations.

Only the sectoral agreement of the State Statistics Service of Ukraine defines the persons responsible for implementing the provisions of the sectoral agreement. The sectoral agreements of the Armed Forces and the State Border Guard Service of Ukraine contain a rule according to which the partners independently determine the persons responsible for implementing the provisions. The rest of the agreements do not specify the responsible persons and contain only the general statement that the partners are liable for their obligations. This practice negatively characterises the collective bargaining of labour remuneration.

Analysis of the settlement of labour remuneration issues during collective bargaining in the public sector

The next indicator for assessing the DSPRLR is the settlement of labour remuneration issues during collective bargaining under the legislation. The assessment of the sectoral agreements’ regulation of remuneration norms, as required by the law, is given in Table 3.

Table 3. The assessment of sectoral agreements' regulation of remuneration norms as required by the law

Remuneration norms that must be regulated by a sectoral agreement under the Law of Ukraine "On Collective Bargaining and Agreements"	Assessment (yes, no, partially)							
	Sectoral agreement of the State Audit Service of Ukraine for 2017–2021	Sectoral agreement of the State Treasury Service of Ukraine for 2016–2020	Sectoral agreement of the State Statistics Service of Ukraine for 2020–2022	Sectoral agreement of the State Fiscal Service of Ukraine for 2018–2020	Sectoral agreement of the Armed Forces of Ukraine for 2019–2023	Sectoral agreement of the State Border Guard Service of Ukraine for 2018–2020	Sectoral agreement of the Police of Ukraine for 2019–2021	Sectoral agreement of the Pension Fund of Ukraine for 2016–2020
1. Minimum wage guarantees by the qualification based on a unified wages scale	–	–	–	–	–	+	–	–
2. Minimum amounts of additional payments and increases, considering the specific work conditions of professional groups and categories of employees	–	–	+	+	+	+	+	–
3. Minimum social guarantees, compensations, benefits	±	±	±	+	+	±	±	±
4. Utilities and amenities, medical, cultural services	±	±	±	+	+	+	±	±
5. Rehabilitation and recreation	±	±	±	+	+	+	±	±
6. Conditions for the growth of wage funds	–	–	–	±	+	±	+	–
7. Inter-qualification (inter-job) ratios in labour remuneration	–	–	–	+	+	+	+	–
8. Ensuring equal rights and opportunities for women and men	–	+	+	+	–	–	+	–
Percentage of norms regulated by the sectoral agreement, %	0	12.5	25	75	75	62.5	50	0

Note: "±" means that only part of remuneration norms is regulated by sectoral agreement

Source: Own elaboration.

According to the data in Table 3, no sectoral agreement in the public sector regulates all issues of labour remuneration. The most progressive agreements from this point of view are those of the State Fiscal Service, the Armed Forces, and the State Border Guard Service of Ukraine. The least effective are the agreements of the State Audit Service, the State Treasury Service, and the Pension Fund of Ukraine.

The lack of specific obligations of the social partners to increase wages and labour remuneration funds negatively characterises collective bargaining. Most sectoral agreements contain a general statement that the partners commit to promoting wage increases and labour remuneration growth but do not specify concrete figures.

Duplicating legislative norms and norms of the general agreement by sectoral agreements cannot be considered positive. Organisations and institutions must comply with the law, regardless of whether the norms are provided in the relevant sectoral agreement. The authors argue that sectoral agreements should include only those rules that expand the list of guarantees and incentives or offer higher payments to employees.

It is common practice to appeal to the regulation of relevant norms by the collective agreements of organisations and institutions. This indicates the decentralisation of collective bargaining from the sectoral to the organisational level.

Table 4. Comparison of the number of partners' obligations on labour remuneration in sectoral agreements in the public sector

Agreements	Number of joint obligations/partners agreed	Number of the public authority's obligations	Number of the trade union's obligations	Total number of obligations	The ratio of the number of obligations compared to the previous agreement, %
1. Sectoral agreement of the State Audit Service of Ukraine					
for 2013–2015	13	0	4	17	–
for 2017–2021	1	16	6	23	135.3
2. Sectoral agreement of the State Treasury Service of Ukraine					
for 2012–2015	15	0	4	19	–
for 2016–2020	18	6	6	30	157.9
3. Sectoral agreement of the State Statistics Service of Ukraine					
for 2015–2018	10	8	9	27	–
for 2020–2022	8	8	9	25	92.6
4. Sectoral agreement of the State Fiscal Service of Ukraine					
for 2017–2019	0	37	22	59	–
for 2018–2020	0	37	22	59	100.0
5. Sectoral agreement of the Armed Forces of Ukraine					
for 2016–2018	28	13	8	49	–
for 2019–2023	21	12	7	40	81.6
6. Sectoral agreement of the State Border Guard Service of Ukraine					
for 2015–2017	5	24	8	37	–
for 2018–2020	3	26	8	37	100.0
7. Sectoral agreement of the Police of Ukraine					
for 2015–2018	0	28	2	30	–
for 2019–2021	0	32	2	34	113.3
8. Sectoral agreement of the Pension Fund of Ukraine					
not available	–	–	–	–	–
for 2016–2020	7	6	5	18	–

Source: Own elaboration.

Further essential indicators are the number of social partners' obligations on labour remuneration and the ratio of their obligations under the current sectoral agreement compared to the number under the previous ones. The data for the analysis of sectoral agreements on these indicators are given in Table 4.

According to Table 4, the sectoral agreements of the State Fiscal Service and the Armed Forces of Ukraine contain the highest number of social partners' obligations regarding labour remuneration.

The previous sectoral agreements of the State Audit Service and the State Treasury Service of Ukraine did not create obligations for public authorities and were limited only to joint obligations. However, the agreements concluded for the subsequent periods included obligations of the public authorities, which can be considered a positive trend.

When comparing the number of obligations contained in existing sectoral agreements with the obligations under previous agreements, positive dynamics can be seen in the social dialogues of the State Treasury Service, the State Audit Service, and the Police of Ukraine.

The comparative analysis of previous and more recent sectoral agreements showed that the rules of existing agreements mostly duplicate the provisions of previous ones. Most agreements, which are characterised by an increase in the number of obligations, have such an increase due to general provisions and recommendations to include relevant rules by the collective agreements of institutions and organisations.

The ratio of the number of provisions of the sectoral agreement on labour remuneration, which contain specific obligations, to the total number of obligations on labour remuneration for each agreement is shown in Table 5.

Table 5. The ratio of the number of provisions of the sectoral agreement on labour remuneration, which contain specific obligations, to the total number of obligations on labour remuneration

Agreements	Specific obligations		General obligations	
	number	% to the total number	number	% to the total number
1. Sectoral agreement of the State Audit Service of Ukraine for 2017–2021	11	47.8	12	52.2
2. Sectoral agreement of the State Treasury Service of Ukraine for 2016–2020	18	60.0	12	40.0
3. Sectoral agreement of the State Statistics Service of Ukraine for 2020–2022	20	80.0	5	20.0
4. Sectoral agreement of the State Fiscal Service of Ukraine for 2018–2020	50	84.7	9	15.3
5. Sectoral agreement of the Armed Forces of Ukraine for 2019–2023	40	100.0	0	0.0
6. Sectoral agreement of the State Border Guard Service of Ukraine for 2018–2020	33	89.2	4	10.8
7. Sectoral agreement of the Police of Ukraine 2019–2021	29	85.3	5	14.7
8. Sectoral agreement of the Pension Fund of Ukraine for 2016–2020	11	61.1	7	38.9

Source: Own elaboration.

According to Table 5, the most successful agreement in regulating labour remuneration based on social partnership is in the Armed Forces of Ukraine, where 100% of the obligations of the social partners are specific.

Some of the provisions of sectoral agreements (except for the sectoral agreement of the Armed Forces of Ukraine) are declarative (non-specific) without naming specific mechanisms for implementing the obligations undertaken by the partners.

Analysis of the tariff conditions of labour remuneration in the public sector

The next block of indicators for assessing the DSPRLR are indicators that characterise *the tariff conditions of labour remuneration*. These indicators can be used to assess the collective bargaining of only those areas of public structures whose sectoral agreements provide for tariff conditions of labour remuneration; these structures are the State Fiscal Service, the Armed Forces, the State Border Guard Service, and the Police of Ukraine. As tariff conditions are key in the regulation of labour remuneration, the non-regulation of these provisions by sectoral agreements negatively characterises collective bargaining.

Table 6 shows the results of assessing the tariff conditions of labour remuneration.

Table 6. The results of assessing the tariff conditions of labour remuneration

Agreements	Ratio of				
	the basic wage of the worker of the 1st category and the minimum wage provided by law, %	6-category tariff scale for workers	salaries of top managers and technical staff following the scheme of salaries	the salary scale for managers and specialists, %	between the salaries of professionals, specialists, and technical staff of two neighbouring categories, %
Sectoral agreement of the State Fiscal Service of Ukraine for 2018–2020	317	1.375	1.5	[4; 10]	<10
Sectoral agreement of the Armed Forces of Ukraine for 2019–2023	120	2.0	2.3	[5; 20]	[7; 13]
Sectoral agreement of the State Border Guard Service of Ukraine for 2018–2020	110	1.45	4.51 (unified wages scale)	[7; 9]	[2; 9] (unified wages scale)
Sectoral agreement of the Police of Ukraine 2019–2021	185	1.12	1.84	[2; 3]	<10

Source: Own elaboration.

Important indicators for assessing the tariff conditions of labour remuneration are indicators that characterise wage differentiation. The evaluation showed that the tariff conditions do not meet the established standards; they do not provide an objective differentiation of wages depending on the work complexity, responsibilities, and qualifications of employees. However, the one exception is the range of the tariff scale in the sectoral agreement of the Armed Forces of Ukraine.

The significant shortcomings of tariff conditions of labour remuneration also include the lack of analytical methods for evaluating positions and jobs and flexible remuneration models. Although some sectoral agreements (the agreements of the State Fiscal Service and the Police of Ukraine) provide for a range of tariff rates and salaries, such practices cannot be called successful, as they have various shortcomings, including:

- Very narrow ranges that make it impossible to individualize employees' wages;
- Lack of overlap in the established ranges, which does not encourage employees who work for a long time in the organization and have significant achievements but belong to lower categories and ranks;
- Lack of clear criteria for determining the individual wages of employees within the established ranges.

Assessing the practice of providing rewards, guarantees, and benefits in the public sector

The next indicator for assessing the DSPRLR is *the compliance of the list, amount, and procedure for payment of additional rewards and increases to legal norms and norms of the general agreement*. Not all sectoral agreements contain a list of additional rewards and increases; this negatively characterizes collective bargaining.

The list of additional rewards and increases is regulated by the sectoral agreements of the State Statistics Service, the State Fiscal Service, the Armed Forces, the State Border Guard Service, and the Police of Ukraine.

Analysis of the lists and amounts of rewards and increases showed that they meet the requirements of labour legislation and the terms of the general agreement. However, only some of the additional rewards and increases include higher payments compared to the legislation and general agreement. The lack of expanding the list of additional rewards and increases cannot be considered a progressive practice of collective bargaining.

The results of assessing *the existence of provisions for the introduction of personnel participation systems in the distribution of profits, social packages, and social insurance programmes in the sectoral agreements* are shown in Table 7.

Table 7. The results of assessing the existence of provisions for the introduction of personnel participation systems in the distribution of profits, social packages, and social insurance programmes in the sectoral agreements

	Introduction of personnel participation systems in the distribution of profits	Introduction of social packages	Introduction of social insurance programmes
1. Sector agreement of the State Audit Service of Ukraine for 2017–2021	–	–	–
2. Sectoral agreement of the State Treasury Service of Ukraine for 2016–2020	–	–	–
3. Sectoral agreement of the State Statistics Service of Ukraine for 2020–2022	–	–	–
4. Sectoral agreement of the State Fiscal Service of Ukraine for 2018–2020	+	+	–
5. Sectoral agreement of the Armed Forces of Ukraine for 2019–2023	–	+	+
6. Sectoral agreement of the State Border Guard Service of Ukraine for 2018–2020	–	+	+
7. Sectoral agreement of the Police of Ukraine 2019–2021	–	+	+
8. Sectoral agreement of the Pension Fund of Ukraine for 2016–2020	–	–	–

Source: Own elaboration.

Only the sectoral agreement of the State Fiscal Service of Ukraine for 2018–2020 provides for the relevant employer obligations to introduce personnel participation systems in the distribution of profits. Since the participation of employees in the distribution of profits is a progressive practice and an essential element of the democratisation of governance, the lack of such norms does not contribute to the development of social partnerships in the public sector.

No sectoral agreement provides for introducing social packages. However, some of them (the agreements of the State Fiscal Service, the Armed Forces, the State Border Guard Service, and the Police of Ukraine) contain obligations to provide employees with a wide range of social guarantees and benefits. This practice can be considered positive because it characterises the employer as socially responsible and positively affects employees' loyalty.

The sectoral agreement of the Police of Ukraine provides for the introduction of health insurance programmes, which can be considered a progressive practice. In addition, the agreements of the Armed Forces and the State Border Guard Service of Ukraine contain obligations to provide medical services to employees, which is also a positive practice.

An important indicator for assessing the DSPRLR is the existence of provisions on gender equality in labour remuneration in the sectoral agreement. The agreements of the State Treasury Service, the State Statistics Service, the State Fiscal Service, and the Police of Ukraine include the relevant obligations (Table 3), which is good practice regarding the creation of equal economic opportunities for men and women.

Assessing the complex index of the DSPRLR in the public sector

Table 8 presents the initial information for calculating the complex index of the DSPRLR in the public sector.

Table 8. The initial information for the calculation of the complex index of the DSPRLR in the public sector

Indicator	Standard	X_{max}	X_{min}
1	yes	–	–
2	yes	–	–
3	yes	–	–
4	→ max (100)	75	0
5	→ max	59	18
6	→ max (≥100)	157.9	81.6
7	→ max (100)	100	47.8
8	→ max (≥110)	317	110
9	[2, 3]	2	1.12
10	[4, 12]	4.51	1.5
11	[10, 30]	2	20
12	yes	–	–
13	yes	–	–
14	yes	–	–
15	yes	–	–
16	yes	–	–
17	yes	–	–
18	yes	–	–

Source: Own elaboration.

The calculation of the complex index of the DSPRLR in public organisations is given in Table 9. The clustering of the studied public organizations in terms of the DSPRLR is illustrated in Fig. 1.

According to the complex index of the DSPRLR, the State Fiscal Service of Ukraine holds the best position among the studied public organisations. The worst level of social partnership development is found in the Pension Fund of Ukraine. The cluster with an average level includes the State Fiscal Service, the Police, the Armed Forces, and the State Border Guard Service of Ukraine. None of the studied public organisations showed above-average or high levels of the DSPRLR.

The results of the study of the DSPRLR in the public sector reflect the general practice of collective bargaining in Ukraine not only at the sectoral level but also at the national and regional levels. There is a tendency to decentralize the collective bargaining regulation from the national, sectoral, and regional levels to the organisational ones. This conclusion corresponds with a common trend in industrial relations in various countries (Amable 2016; Pallini 2016; Rodríguez *et al.* 2016; Ibsen & Keune 2018; Rocha 2018; Jonker-Hoffrén 2019; Zisimopoulos *et al.* 2019).

Table 9. The calculation of the complex index of the DSPRLR in public organisations

Indicator	Unit indices							
	State Audit Service of Ukraine	State Treasury Service of Ukraine	State Statistics Service of Ukraine	State Fiscal Service of Ukraine	Armed Forces of Ukraine	State Border Guard Service of Ukraine	Police of Ukraine	Pension Fund of Ukraine
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
3	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.1667	0.3333	1.0000	1.0000	0.8333	0.6667	0.0000
5	0.1220	0.2927	0.1707	1.0000	0.5366	0.4634	0.3902	0.0000
6	0.7038	1.0000	0.1442	0.2412	0.0000	0.2412	0.3893	0.0000
7	0.0000	0.2337	0.6169	0.7069	1.0000	0.7931	0.7184	0.2548
8	0.0000	0.0000	0.0000	1.0000	0.0483	0.0000	0.3623	0.0000
9	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	1.0000	0.0000
14	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
15	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	0.0000
18	0.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	0.0000
Complex index	0.1570	0.2052	0.3481	0.5527	0.4769	0.4073	0.5293	0.0697

Source: Own elaboration.

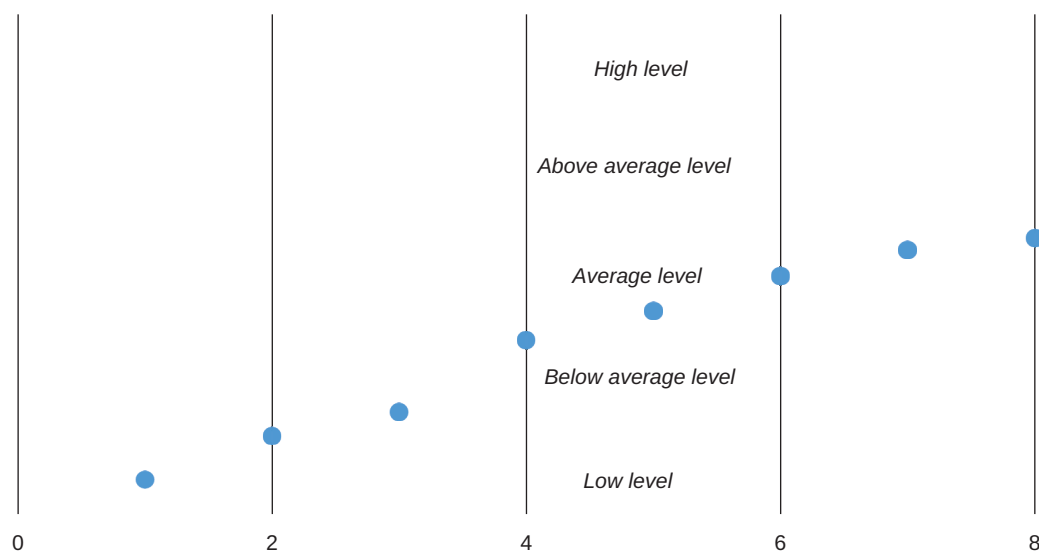


Figure 1. Clustering of the studied public organizations in terms of the complex index of the DSPRLR

Note: 1 – Pension Fund of Ukraine, 2 – State Audit Service of Ukraine, 3 – State Treasury Service of Ukraine, 4 – State Statistics Service of Ukraine, 5 – State Border Guard Service of Ukraine, 6 – Armed Forces of Ukraine, 7 – Police of Ukraine, 8 – State Fiscal Service of Ukraine.

Source: Own elaboration.

Under such conditions, the collective agreements at the organisational level should be strengthened. At the same time, the research results showed that such agreements end up playing a crucial role in regulating industrial relations and labour remuneration (Glassner & Keune 2012; Rodríguez *et al.* 2016; Addison *et al.* 2017; Hyman 2018; Anner *et al.* 2020).

In the private sector, the individualisation of industrial relations has shifted the emphasis from collective to individual bargaining. In the public sector of the economy, the weakening of the role of collective bargaining regulation at the sectoral level has various causes. The main cause is that the public sector of the economy has budget funding and the expenses for labour remuneration and the social security of employees depend significantly on the government's policy decisions. In this regard, the negotiation process of the social partners during the conclusion of collective agreements can be conducted only in the direction of the distribution of allocated budget funds, considering the legal norms and provisions of higher-level agreements.

Discussion

The study revealed problems of collective bargaining in the public sector which hinder the development of social partnership, democratic principles, the social protection of employees, and decent wages. The study was based on assessing various indicators of social partnership. However, the survey did not consider civil servants' level of satisfaction with social dialogue and the policies of labour remuneration and social security. Thus, an important area of further research is the survey of civil servants to determine their satisfaction with social dialogue, labour remuneration, and social security policies. The survey results could be compared with social partnership assessments of various public organisations.

The indicators that characterise social partnership were accepted as holding equal significance in this study, although they may have different weights in reality. Determining the significance of indicators and taking them into account when calculating a complex index requires additional research.

An additional important indicator is the extent to which the social partners comply with the provisions of the sectoral agreement. In Ukraine, there is no practice of social partners publishing reports on the implementation of their obligations. It is therefore impossible to determine the level of agreement implementation. The fulfilment of some obligations should be examined separately in public organisations. However, it can be assumed that not all obligations of the social partners have been fulfilled.

For example, all agreements contain obligations of partners to prevent or repay wage arrears. However, the analysis of the data of the State Statistics Service of Ukraine showed that in the public sector, there are wage arrears. In general, payment in arrears negatively characterises social partnership, as it does not allow employees to meet their needs. Thus, due to the lack of complete information on the extent to which the social partners comply with the provisions of sectoral agreements, this indicator was not considered.

Finally, it is important to note that the research is based mainly on the content analysis of collective agreements. It is advisable to assess the effectiveness of the provisions of these agreements and their ability to influence the quality of citizens' working life, which requires additional quantitative and qualitative research, surveys, and focus groups.

Conclusions

The analysis of the development of social partnership revealed significant shortcomings and negative trends, despite some positive characteristics. Among the positive characteristics inherent in some or most of the studied public organisations are the presence of a sectoral agreement, the recognition of sectoral agreements as an act of social partnership, the identification of centres of responsibility (officials responsible for implementing the provisions of the sectoral agreement), increasing obligations of the social partners, the existence of social guarantees and social insurance programmes, and commitments to ensuring gender equality in labour remuneration.

The negative characteristics of collective bargaining regulation include the following: a lack of obligations that must be settled by the law, a lack of specific instruments for implementing certain provisions, and the duplication of legislation without expanding and increasing the number of relevant benefits and social guarantees.

Labour remuneration policies are negatively characterised by the unresolved tariff conditions of remuneration by sectoral agreements. The tariff conditions provided by some sectoral agreements do not facilitate the objective differentiation of wages.

Furthermore, the limited practice of implementing employee participation in the distribution of profits, social packages, and social insurance programmes hinders the development of social partnerships and the implementation of effective social policy. The lack of social partners' commitment to ensuring gender equality in labour remuneration also prevents the creation of a democratic society and equal opportunities for all.

Moreover, the research showed that the negotiation process in the public sector of the economy can be conducted only in the direction of the distribution of allocated budget funds. To an extent, this explains the clustering of the studied public organisations in terms of the DSPRLR and indicates the illusory nature of collective agreements and the reduction of the potential of social partnership.

Finally, the study results revealed the best practices of collective bargaining in the public sector, which should be studied by policymakers and social partners and implemented during collective bargaining and the signing of sectoral agreements.

References

- Addison, J. T. et al., 2017, 'The demise of a model? The state of collective bargaining and worker representation in Germany', *Economic and Industrial Democracy*, 38(2), 193–234. DOI: <https://doi.org/10.1177/0143831X14559784>
- Amable, B., 2016, 'The political economy of the neoliberal transformation of French industrial relations', *ILR Review*, 69(3), 523–550.
- Anastasiade, M. C., and Tillé, Y., 2017, 'Gender wage inequalities in Switzerland: The public versus the private sector', *Statistical Methods & Applications*, 26, 293–316. DOI: <https://doi.org/10.1007/s10260-016-0368-5>
- Anner, M., Fischer-Daly, M., and Maffie, M., 2020, 'Fissured employment and network bargaining: Emerging employment relations dynamics in a contingent world of work', *ILR Review*, 74(3), 689–714. DOI: <https://doi.org/10.1177/0019793920964180>
- Antonie, L. et al., 2015, 'Analyzing the gender wage gap in Ontario's public sector', *2015 IEEE 14th International Conference on Machine Learning and Applications (ICMLA)*, 465–470. DOI: <https://doi.org/10.1109/ICMLA.2015.171>
- Anzia, S. F., and Moe, T. M., 2015, 'Public sector unions and the costs of government', *The Journal of Politics*, 77(1), 114–127.
- Badigannavar, V., 2017, 'Is social partnership the way forward for Indian trade unions? Evidence from public services', *International Labour Review*, 156(3-4), 367–394. DOI: <https://doi.org/10.1111/ilr.12028>.
- Bernaciak, M., 2015, Beyond the CEE "Black Box": Crisis and Industrial Relations in the New EU Member States. ETUI Working Paper 2015.05. DOI: <http://dx.doi.org/10.2139/ssrn.2647947>.
- Bernaciak, M., 2017, 'Coming full circle? Contestation, social dialogue and trade union politics in Poland', in: H. Dribbush, S. Lehndorff, Th. Schulten (eds.), *Rough Waters: European Trade Unions in a Time of Crisis* (pp. 161–183). European Trade Union Institute. Available at: <https://www.etui.org/sites/default/files/07%20Contestation%2C%20social%20dialogue%20Poland.pdf> (accessed: 15.01.2023).
- Buchner, L. M., and Ilieva, L., 2017, 'European social dialogue, a hidden phenomena of the intercultural dialogue in Europe', *Scientific Journal of Polonia University*, 22(3), 130–138. DOI: <https://doi.org/10.23856/2216>
- Card, D., Lemieux, T., and Riddell, W. C., 2020, 'Unions and wage inequality: The roles of gender, skill and public sector employment', *Canadian Journal of Economics. Revue canadienne d'économique*, 53(1), 140–173. DOI: <https://doi.org/10.1111/caje.12432>.
- Chen, Y., and Liu, Q., 2018, 'Public-sector wages and corruption: An empirical study', *European Journal of Political Economy*, 54, 189–197. DOI: <https://doi.org/10.1016/j.ejpoleco.2018.06.006>.

- Cornell, A., and Sundell, A., 2020, 'Money matters: The role of public sector wages in corruption prevention', *Public Administration*, 98(1), 244–260. DOI: <https://doi.org/10.1111/padm.12634>
- Cornet, A., and Fatoux, F., 2017, 'Trade unions and social dialogue: A challenge for diversity management', *Management and Diversity: International Perspectives on Equality, Diversity and Inclusion*, 4, 231–254. DOI: <https://doi.org/10.1108/S2051-233320160000004012>
- Culpepper, P. D., and Regan, A., 2014, 'Why don't governments need trade unions anymore? The death of social pacts in Ireland and Italy', *Socio-Economic Review*, 12(4), 723–745. DOI: <https://doi.org/10.1093/ser/mwt028>
- Danyilevych, N., and Poplavska, O., 2020, 'Social responsibility and social partnership in the 4th industrial revolution context: case of Ukraine', *REVESCO. Revista de Estudios Cooperativos*, 135, 1–18. DOI: <https://dx.doi.org/10.5209/reve.69185>
- Demirgüç-Kunt, A., Lokshin, M., and Kolchin, V., 2021, 'Effects of Public Sector Wages on Corruption: Wage Inequality Matters', Policy Research Working Paper, 9643, World Bank Group, Europe and Central Asia Region, Office of the Chief Economist. DOI: <http://dx.doi.org/10.2139/ssrn.3838088>
- Depalo, D., Giordano, R., and Papapetrou, E., 2015, 'Public-private wage differentials in euro-area countries: Evidence from quantile decomposition analysis', *Empirical Economics*, 49, 985–1015. DOI: <https://doi.org/10.1007/s00181-014-0900-0>
- Dumka, I. F., 2016, 'Coordinated wage setting and social partnership under EMU: A framework for analysis and results from Belgium, Germany and the Netherlands', *Transfer: European Review of Labour and Research*, 22(4), 445–460. DOI: <https://doi.org/10.1177/1024258916668987>
- Euwema, M. et al., 2015, 'Promoting social dialogue in European organizations: Human resources management and constructive conflict management', *Industrial Relations & Conflict Management*, 1. Available at: <https://library.oapen.org/bitstream/handle/20.500.12657/27996/1002001.pdf?sequence=1> (accessed: 15.01.2023).
- Frandsen, B. R., 2015, 'The effects of collective bargaining rights on public employee compensation: Evidence from teachers, firefighters, and police', *ILR Review*, 69(1), 84–112. DOI: <https://doi.org/10.1177/0019793915603068>
- Galgóczy, B., 2020, 'Just transition on the ground: Challenges and opportunities for social dialogue', *European Journal of Industrial Relations*, 26(4), 367–382. DOI: <https://doi.org/10.1177/0959680120951704>
- Gardawski, J., and Towalski, R., 2019, 'Labor market and industrial relations', in: R. Rapacki (ed.), *Diversity of Patchwork Capitalism in Central and Eastern Europe*. London, New York: Routledge.
- Glassner, V., and Keune, M., 2012, 'The crisis and social policy: The role of collective agreements', *International Labour Review*, 151, 351–375. DOI: <https://doi.org/10.1111/j.1564-913X.2012.00153.x>
- Gomes, P., 2015, 'Optimal public sector wages', *The Economic Journal*, 125(587), 1425–1451. DOI: <https://doi.org/10.1111/eoj.12155>
- Hamermesh, D. S., 2015, *Labour in the Public and Nonprofit Sectors*. Princeton: Princeton University Press.
- Hayter, S., 2015, 'Unions and collective bargaining', in: J. Berg (ed.), *Labour Markets, Institutions and Inequality* (pp. 399–418), Cheltenham, UK – Northampton, MA: Edward Elgar Publishing. Available at: https://EconPapers.repec.org/RePEc:elg:eechap:16143_4 ((accessed: 15.01.2023).
- Heery, E., 2002, 'Partnership versus organising: Alternative futures for British trade unionism', *Industrial Relations Journal*, 33, 20–35. DOI: <https://doi.org/10.1111/1468-2338.00217>
- Hyman, R., 2018, 'What future for industrial relations in Europe?', *Employee Relations*, 40(4), 569–579. DOI: <https://doi.org/10.1108/ER-02-2018-0056>
- Ibsen, C., and Keune, M., 2018, Organised Decentralisation of Collective Bargaining: Case studies of Germany, Netherlands and Denmark, OECD Social, Employment and Migration Working Papers, 217, Paris: OECD Publishing. DOI: <https://doi.org/10.1787/f0394ef5-en>
- ILO-ITUC, 2017, 'Social dialogue as a driver and governance instrument for sustainable development', Issue Paper, ILO, Geneva. Available at: <https://www.ituc-csi.org/issue-paper-social-dialogue-development?lang=en> ((accessed: 15.01.2023).
- Jonker-Hoffrén, P., 2019, 'Finland: Goodbye centralised bargaining? The emergence of a new industrial bargaining regime', *Collective Bargaining in Europe: Towards an Endgame*, 1, 197–215. Available at: <https://www.etui.org/sites/default/files/Collective%20Bargaining%20Vol%20I%20final%20web%20version.pdf#page=223> (accessed: 15.01.2023).
- Kearney, R. C., and Mareschal, P. M., 2017, *Labour Relations in the Public Sector*. New York: Routledge. DOI: <https://doi.org/10.4324/9781315092157>
- Kolot, A. M., 2018, 'The social and labor sphere in the coordinates of the new economy: The expansion of opportunities and new threats', *The Social and Labor Sphere in the Conditions of the Formation of*

- a New Economy: Global Challenges and Dominants of Development, KNEU, 7–15. Available at: https://ir.kneu.edu.ua/bitstream/handle/2010/25308/K_7-15.pdf?sequence=1&isAllowed=y (accessed: 15.01.2023).
- Kovač, C., 2017, 'Social partnership in occupational safety and health', *Safety Engineering*, 7(2), 85–91.
- Lethbridge, J., 2016, 'Contribution of social dialogue to support well-being and health and safety at work in local public services', Public Services International Research Unit, European Commission. Available at: https://gala.gre.ac.uk/id/eprint/16417/7/16417%20LETHBRIDGE_Contribution_of_Social_Dialogue_2016.pdf (accessed: 15.01.2023).
- Mahuteau, S. et al., 2017, 'Public–private sector wage differentials in Australia', *Economic Record*, 93(1), 105–121. DOI: <https://doi.org/10.1111/1475-4932.12334>
- Marconi, N., 2004, 'Gap between public and private wages and wages determination in the public sector', *Brazilian Journal of Political Economy*, 24(2), 264–287. DOI: <https://doi.org/10.1590/0101-31572004-1626>
- Michael, M., and Christofides, L. N., 2020, 'The impact of austerity measures on the public–private sector wage gap in Europe', *Labour Economics*, 63, 101796. DOI: <https://doi.org/10.1016/j.labeco.2020.101796>
- Morikawa, M., 2016, 'A comparison of the wage structure between the public and private sectors in Japan', *Journal of the Japanese and International Economies*, 39, 73–90. DOI: <https://doi.org/10.1016/j.jjie.2016.01.004>
- Motsna, I., 2019, 'Problems of development of social partnership in Ukraine and ways for their solutions', *Scientific Bulletin of the Uzhhorod National University*, 25(1), 166–170.
- Obisi, C., 2016, 'Disputes resolution through social dialogue: Evidence from Nigerian organizations', *Indian Journal of Industrial Relations*, 52(1), 58–70. Available at www.jstor.org/stable/43974598 (accessed: 15.01.2023).
- Ost, D., 2000, 'Illusory corporatism in Eastern Europe: Neoliberal tripartism and postcommunist class identities', *Politics & Society*, 28(4), 503–530. DOI: <https://doi.org/10.1177%2F0032329200028004004>.
- Pallini, M., 2016, 'Italian industrial relations: Toward a strongly decentralized collective bargaining', *Comparative Labor Law & Policy Journal*, 38(1), 1–12.
- Parliament of Ukraine, 1993, On Collective Agreements and Contracts, The Law of Ukraine, as of 1 July 1993, No. 3356. Available at: <https://zakon.rada.gov.ua/laws/show/3356-12> (accessed: 15.01.2023).
- Parliament of Ukraine, 2011, On Social Dialogue in Ukraine, The Law of Ukraine, as of 18 January 2011, No. 2862-VI. Available at: <https://zakon.rada.gov.ua/laws/show/2862-17#Text> (accessed: 15.01.2023).
- Paunović, S. et al., 2016, 'Information support and the processes of social dialogue in the Republic of Serbia', *Journal for Labour and Social Affairs in Eastern Europe*, 19(1), 109–117. Available at www.jstor.org/stable/26379880 (accessed: 15.01.2023).
- Prosser, T. J., and Perin, E., 2015, 'European tripartism: Chimera or reality? The 'new phase' of the European social dialogue in the light of tripartite theory and practice', *Business History*, 57(3), 376–397. DOI: <https://doi.org/10.1080/00076791.2014.983481>
- Ramos Martin, N. E., 2018, *Bargaining and Social Dialogue in the Public Sector (BARSOP): Policy paper France*, University of Amsterdam. Available at: <https://aias.s3-eu-central-1.amazonaws.com/website/uploads/1533585636046BARSOP-policy-papers.zip> (accessed: 05.01.2023).
- Rattso, J., and Stokke, H. E., 2019, 'Identification of the private–public wage gap', *Labour Economics*, 59, 153–163. DOI: <https://doi.org/10.1016/j.labeco.2019.04.006>
- Razumkov Center, 2021, 'Assessment of the Situation in the Country, Trust in the Institutions of Society and Politicians, Electoral Orientations of Citizens (March 2021)'. Available at <https://razumkov.org.ua/napriamky/sotsiologichni-doslidzhennia/otsinka-sytuatsii-v-kraini-dovira-do-institutiv-suspilstva-ta-politykiv-elektoralni-oriientatsii-gromadian-berezen-2021r> (accessed: 15.01.2023).
- Riccucci, N. M. et al., 2019, *Personnel Management in Government: Politics and Process*. New York: Imprint Routledge. DOI: <https://doi.org/10.4324/9780429424267>.
- Rocha, F., 2018, 'Strengthening the decentralisation of collective bargaining in Spain. Between the legal changes and real developments', in: S. Leonardi, R. Pedersini (red.), *Multi-Employer Bargaining Under Pressure: Decentralisation Trends in Five European Countries* (pp. 225–261). Brussels: European Trade Union Institute.
- Rodríguez, C. J. F., Rojo, R. I., and Lucio, M. M., 2016, 'Austerity and collective bargaining in Spain: The political and dysfunctional nature of neoliberal deregulation', *European Journal of Industrial Relations*, 22(3), 267–280.

- State Statistics Service of Ukraine. Statistical Information. Available at: <http://ukrstat.gov.ua> (accessed: 15.01.2023).
- Tymbaliuk, S., Poplavska, O., and Danylevych, N., 2022, 'Collective bargaining and payment regulation at the regional level: Assessment and prospects (on the example of Ukraine)', *Scientific Horizonsthis*, 25(1), 76–95. DOI: [https://doi.org/10.48077/scihor.25\(1\).2022.76-95](https://doi.org/10.48077/scihor.25(1).2022.76-95).
- Tymbaliuk, S., Wyrwa, D., and Shkoda, T., 2019, 'Remuneration policy in terms of decent work at a regional level', *Problems and Perspectives in Management*, 17(4), 80–92. DOI: [http://dx.doi.org/10.21511/ppm.17\(4\).2019.07](http://dx.doi.org/10.21511/ppm.17(4).2019.07).
- Uhlerová, M., 2020, 'The role of trade unions and social dialogue during the crisis: The case of Slovakia', *Central European Journal of Labour Law and Personnel Management*, 1, 61–76.
- Vallasek, M., 2019, 'Collective bargaining and social dialogue in Romania', *Acta Universitatis Sapientiae. Legal Studies*, 8(1), 119–133.
- Vilerts, K., 2018, 'The public–private sector wage gap in Latvia', *Baltic Journal of Economics*, 18(1), 25–50.
- Winterton, J., 2006, 'Social dialogue and vocational training in Europe: Are we witnessing the emergence of a European model?', *Journal of European Industrial Training*, 30(1), 65–76. DOI: <https://doi.org/10.1108/03090590610643888>
- Yang, S. H., and Jeong, B. Y., 2020, 'Gender differences in wage, social support, and job satisfaction of public sector employees', *Sustainability*, 12(20), 8514. DOI: <https://doi.org/10.3390/su12208514>
- Zisimopoulos, I., Fagogenis, K., and Economakis, G., 2019, 'Decentralization of collective bargaining system in Greece: Between dismantling, survival and restoration', in: *Proceedings of the International Conference of Political Economy* (pp. 249–259), June 25–28, 2019, Istanbul, Turkey.

Internal Social Responsibility: An Assessment Based on Official Reporting Data

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Abstract

The authors have suggested analytical tools to evaluate levels of internal social responsibility by developing an aggregate set of indicators. The reference indicators values were substantiated on the basis of average industry ones, which provided an opportunity to determine the multiple coefficients. The suggested tools provide the opportunity to define enterprises' tendency for change in the level of responsibility level by years. This research can have important practical impacts due to its quantitative assessment having been based on published financial statements. The study creates additional opportunities for stakeholders to evaluate current internal corporate social responsibility levels and predict their own development direction.

Keywords

Corporate Social Responsibility (CSR), internal social responsibility, CSR metrics, financial statement, food industry enterprises

Introduction

A socially responsible approach to entrepreneurship is a typical feature of most market economy countries with developed civil society and democratic traditions. The practice of introducing corporate social responsibility (CSR) in the activities of these enterprises in such countries is formed under the influence of current legislation, primarily in the environmental and social spheres, as well as of international or non-governmental organisations that determine the principles of social responsibility in business. In Ukraine, this process has recently intensified since the signing of the Association Agreement with the EU(2014), and is characterised by the improvement of CSR's relevant legal and institutional support. The Constitution of Ukraine forms the basis of the regulatory and legal support of the social responsibility of enterprises in the country, and defines the requirements of respect for human rights and freedoms, labour relations, and the environment. The bases of the economic, social, and environmental components of the sustainable development of enterprises are laws, codes and regulations, national strategies and programmes aimed at supporting and developing business in Ukraine, international and national standards that define the principles and approaches to social responsibility in the business sphere, as well as legislative and special documents of a strategic nature in the field of CSR (Laws of Ukraine 'On Public-Private Partnership' (Law of Ukraine № 2404-VI of 1 July, 2010), 'On Social Dialogue in Ukraine' (Law of Ukraine №

2862-VI of 23 December, 2010), etc.). It could confidently be stated that Ukrainian legislation already covers the areas of human rights, social and labour relations, environmental protection, information and advertising, fiscal policy, and anti-corruption activities – all of which are in line with the principles of the UN Global Compact. However, despite the relevance and timeliness, a separate law on CSR does not yet exist.

On 1st January, 2018, an amendment to Ukrainian law ('On Accounting and Financial Reporting in Ukraine' and 'On Improving Certain Provisions', dated October 5, 2017 № 2164-VIII) came into force. This introduced the concept of CSR and made the submission of management reports mandatory for enterprises through a document containing financial and non-financial information that characterises the state and prospects of enterprises, and reveals the main risks and uncertainties of its activities (Law of Ukraine № 2164-VIII of 5 October, 2019). Article 11 of this law provides the submission of management reports along with (consolidated) financial statements. This normative document is mostly focused on larger enterprises, as it exempts micro and small enterprises from submitting any such reports, and medium-sized enterprises have the right to leave their non-financial information undisclosed in their management reports. Therefore, it is important to find reliable sources of information and indicators through which an enterprise's level of social responsibility can be accurately assessed. The monitoring of the results of such activities – i.e., the systematic monitoring, diagnosis, audit, and forecast of the economic, social, and environmental results of the enterprise in the context of their compliance with the sustainable development of the global economy, national policy documents, international reporting standards, and societal expectations – is a vital component of CSR.

The orientation of social responsibility may be represented, from the point of view of the impact of the company's activities, in the form of several levels: intra-corporate (responsibility to staff and shareholders), market (responsibility to partners and consumers), public (responsibility to the state and local communities), and global (responsibility before the world community). Most often, a more comprehensive approach is used, highlighting two main vectors of the development of socially responsible activities: internal and external.

The internal form of CSR implementation is expressed in the socially responsible policies of companies regarding their owners (i.e., shareholders) and staff. This is predominantly contained within such frameworks as healthcare programmes, the creation of safe working conditions, staff development, solving issues of socially responsible restructuring, and increasing the efficiency of business management. The external form relates to companies' social policies towards local communities and other external stakeholders. It includes programmes aimed at environmental protection, the development of the local community, and the conduct of honest business practices, among others.

On the one hand, such a division is necessary in order to understand the systemic and complex nature of CSR, as well as to make adequate corrections to the model of interaction with stakeholders implemented/used by companies. On the other hand, the selection of the mentioned forms of social responsibility could be called conditional. Although there are tasks at each level, certain programmes can have a dual impact vector. Traditionally, within the framework of internal CSR, primary attention is paid to the practice of developing relations with one's own employees. Such an approach is not only a team concern, but is also considered a necessary condition for a company's long-term survival and development.

As an organisation, an enterprise is an open system, which literally means that it has free entry and exit. Therefore, under a favourable socio-economic climate, the elements of society that constitute social capital (e.g., employees, people) consider an enterprise as a potential object through which to realise their economic interests. Both potential and actual employees have free access to the system. In a developed civil society, its elements (e.g., people) have certain qualities, such as the power of reason, will, and spirit, which afford them the opportunity and desire to exert influence upon enterprises (from both within and without) on the factors that make up its internal environment and image. A similar situation occurs with trade unions as a direct factor of the external environment. Therefore, the actions and activities of their members (who are, of course, also employees of the enterprise) may have significant internal impacts on the company, particularly in terms of such issues as working conditions, productivity and wages, and technical and technological

development (Ksondz et al. 2013). Indeed, this perspective allowed us to substantiate this thesis about the connection of social responsibility to employees of enterprises and its determinism due to external factors through internal agents. Accordingly, we sought to evaluate enterprises' levels of internal CSR.

The study was conducted based on enterprises in the Ukrainian food industry. The role of the food industry is primarily determined by the country's food security issues. Moreover, the place of the food industry in the national economy is determined by the following factors: it is among the TOP-5 most important industries of Ukraine and fully meets the needs of the inner market of food products. According to the State Statistics Service of Ukraine (2020) in terms of sales, it ranks first in industry – it accounted for 21.4% of sales of industrial products of Ukrainian enterprises in 2019, 12.5% of capital investment, and, in 2018, 3.7% of gross value added sales (State Statistics Service of Ukraine, 2019).

CSR in Ukraine is still undergoing a difficult period in its formation. There are no clear legislative requirements regarding the publication of non-financial reporting and motivational programmes that stimulate its preparation. According to research from the Centre for CSR Development Ukraine, among the TOP-100 list of the largest taxpayers in 2019, only 6 Ukrainian companies published non-financial reports on their official websites. As non-financial reports of Ukrainian enterprises were largely absent, we instead sought to measure CSR levels through calculating and interpreting financial and economic indicators. The advantages of using such indicators are as follows: 1) systematic calculation in the course of accounting and evaluation of the economic activity does not require additional time and money; 2) versatility, i.e., the characteristics of CSR in different directions and areas of responsibility; 3) the absence of inconsistent indicators, i.e., being in an inverse relationship in order to avoid counterbalances.

This study can have important practical contributions. For instance, the quantitative assessment of internal social responsibility is based on financial statements, which companies routinely publish anyway. The study creates additional opportunities for stakeholders to assess the current and dynamic level of internal CSR, as well as to predict the development of CSR for Ukrainian food companies. After all, we argue that it is both necessary and possible to quantify social responsibility indirectly through the use of traditional financial and economic indicators, the calculation of which is common for all businesses without exception.

The remainder of the paper is structured as follows. First, the literature related to measuring CSR is reviewed. This review contains different methods of social responsibility research, both external and internal. Second, the research methods are described, including data collection and the proposed social responsibility metrics. Third, the empirical results and their relevant descriptions are presented. Last, the study's limitations and conclusions are discussed.

Literature review

The assessment of CSR is a time-consuming process, as this phenomenon affects many different aspects. This is due to the specific nature of the subject of evaluation, the ability to select and calculate the performance indicators, and different methods of evaluation, among other factors. The complexity of such an assessment is amplified by such elements as the influence of subjective factors, the diversity and incomparability of moral, ethical and economic parameters, and the degree of satisfaction of different stakeholders. The lack of open information about the company's social activities (except for companies that publish social reports that are necessary for signatories of the UN Global Compact and those who want to be competitive in the world market) is also a problem that, in turn, limits the possibilities of its evaluation by stakeholders. This problem also applies to Ukraine. The existing financial statements of Ukrainian companies do not provide a standard form that reflect the achieved level of social responsibility. However, at the same time, a wide range of subjects of social-economic relations are interested in this kind of assessment. Assessing CSR levels allows for the current states of companies to be influenced, for decisions and directions to be made or changed, for the impact on key parameters to be predicted, and for further developmental plans to be made. Moreover, there is evidence in the literature that the results of social activities and a company's performance are interlinked. Wu and Shen (2013), analysing data

from 162 banking institutions from 22 countries, showed a positive relationship between the CSR level and the financial performance of banks. Furthermore, studies have shown a close relationship between social and financial performance of corporations (Simpson and Kohers, 2002). Dividing CSR into five dimensions, Inoue and Lee (2011) showed that all five had a positive, but different, financial effect. The relationship between social responsibility and financial performance in the Turkish banking sector was evidenced by Yilmaz (2012). Further, Peloza (2009) provided a good review of the academic and practical literature on the link between CSR and financial performance. Moreover, Luo et al. (2015) revealed the basic information mechanism of the link between corporate social and financial efficiency, emphasising the role of the analysts. Additionally, Ming-Te Lee (2020) explored the relationship between CSR and inefficient investment among Taiwanese firms in the emerging Asian market.

However, there is also evidence to support a negative relationship between social spending and business performance (Boyle et al. 1997; Wright and Ferris 1997).

In general, the theory and practice of CSR have accumulated an extremely large quantity of assessment models and methods. For instance, Kanji and Agrawal (2016) singled out a group of the generic models of CSR. According to the mentioned authors, it includes:

- Ackerman's Model (Ackerman and Bauer 1976);
- The Pyramid Model of CSR (Carroll 1991; Pinkston and Carroll 1996);
- The Intersecting Circles Model of CSR (Schwartz and Carroll 2003);
- The Concentric Circles Model of CSR (Committee for Economic Development 1971);
- 3C–SR Model (Meehan, Meehan and Richards 2006);
- Liberal Model (Friedman 1971);
- Stakeholder Model (Freeman 1984).

Kanji and Agrawal (2016) also indicated two models used in India: the Ethical Model and the Statist Model. The listed approaches assume that it is mandatory for enterprises to understand ways to improve their social existence – especially their social recognition. Accordingly, stakeholders must be convinced that businesses are proactively addressing issues of concern to society, be they social or any other risks they may pose.

In addition to those listed above, Visagie, Sibanda and Coetzee's (2019) comprehensive review characterised the Agency Theory, the Shareholder Theory, the Stewardship Theory, the Triple Bottom Line, the Sustainable Development Model, the DNA of CSR 2.0, the Practitioner-Based Model of Societal Responsibilities, the Value Creation Model of CSR, and Consumer-Driven Corporate Responsibility. Generalising, we can sum up that all these theories and models define the purpose of business as serving society by providing safe, high-quality products and services that enhance our well-being without destroying our ecological and social life support systems.

There have been proposals to use the CSR maturity model, which is based on progression models of CSR, as well as the organisational maturity concept derived from the capability maturity model. The CSR maturity model framework consists of three perspectives: the CSR process maturity, the CSR formal maturity, and the CSR developmental maturity. These perspectives refer to the processes, values and underlying assumptions of the CSR activities of enterprises (Witek-Crabb 2019).

Within the literature, the stage theory model is of particular interest. For example, Carlisle and Faulkner (2004) proposed the developmental stage theory model, which may be indicative of the progression from awareness to cultural embedding in the context of CSR more generally:

Stage 1: Developing awareness (senior managers become aware of issues/policies are developed/policies are linked to mission statements);

Stage 2: Promoting awareness (promote awareness of issues and image/appoint someone to oversee policy/publish reports);

Stage 3: Initial implementation (develop and publish quantifiable measures/offer abstract guidance to departments on operation of policy/circulate reports more widely and involve stakeholders);

Stage 4: Mainstreaming (implement concrete procedures for departments to follow/monitor performance in accordance with quantifiable measures/take appropriate actions to ensure effective policy operation).

'In this process, structural changes coupled with the implementation of increasingly effective practices and procedures to promote ethical behaviour in particular areas can lead ultimately to a more ethical corporate culture. In noting the areas covered by CSR policies, our research also suggests that many companies start out with a relatively narrow concept of ethical requirements, which broadens out to encompass additional areas of ethical concern' (Carlisle & Faulkner, 2004).

A similar approach was used by Harrysson, Schoder and Tavakoli (2016), who investigated the evolution of organisational approaches to social technologies, which appeared to move through three phases of use: 1) try-outs; 2) collaboration and knowledge work; and 3) strategic insights.

Accordingly, the above studies have covered different methods of evaluating CSR levels (through content analysis, surveys, reputational measures, one-dimensional indicators, ethical rating).

Studying the problem of social responsibility, S. Prakash Sethi's 1974 book, *The unstable ground: Corporate social policy in a dynamic society*, identified 4 approaches (or methods) to assess the CSR of an enterprise (Sethi et al. 1974). The first method was to use social indicators, including determining living standards by calculating the quantitative indicators and assessing the impact of a corporation's social activities on this index (using such indicators as occupational health and healthcare). The second method was to develop a system that included an estimate of the cost of social programmes, their implementation, as well as an assessment of their effectiveness. The third approach involved conducting an assessment through the preparation of a so-called social report, which presented the balance between the benefits for employees, customers, suppliers, communities, and others and the social costs of an enterprise to create these benefits. The fourth method involved ranking companies according to the level of social responsibility implementation. The first three approaches allow us to assess each component of social responsibility separately, but do not provide an opportunity to evaluate its overall level or compare companies according to this indicator. The above-mentioned ranking method is used for this purpose. However, competitions and ratings should be as transparent and open as possible, and their organisation and conduct should be professional, responsible, and sustainable (authority, reputation, independence, etc.) (Sethi et al. 1974).

Another way to determine the effectiveness of CSR is to use the interview method. For example, Lozano (2015) applied this approach for identifying internal and external drivers of social responsibility. Madueno et al. (2016), studying the impact of social responsibility on the level of competitiveness of Spanish small and medium-sized enterprises, combined the interview method with the statistical analysis of the obtained data. Thus, the researchers found that the development of CSR practices helps to increase competitiveness both directly and indirectly through the company's ability to manage its stakeholders.

Akin and Yilmaz (2016) used content analysis to investigate the link between CSR disclosure and the corporate management characteristics of banks. Moreover, researchers have occasionally used the non-financial reporting of enterprises to assess the level of social responsibility (e.g. Glebova et al. 2013).

A popular assessment method is including companies to an appropriate rating system based on compliance to certain criteria. These criteria assess the socially-responsible behaviour of enterprises in relation to the society. Indeed, Jankalova (2016) provided an overview of such indices and models used in the business environment, focusing on the sustainability indices. These ratings have become so important that many large enterprises hire in-house professionals and teams to monitor and communicate their social performance (Marquez and Fombrun 2005).

A further aspect to be considered is the objectivity of the assessment of CSR. As has been presented in some research, managers of socially-responsible firms conduct CSR activities with the real objective of building corporate citizenship and concealing actual business performance through discretionary accruals, resulting in damaged stakeholders' interests (Mutuc et al. 2020).

It is also worth mentioning a number of studies on CSR levels in Ukrainian enterprises. Although the understanding of the importance of this business aspect lags behind that of more developed countries, progress is certainly being made. This can partly be explained by the need to enter the markets of developed countries and, accordingly, to adapt the best practices of social responsibility. This has been confirmed by, in particular, Levkivska and Leykovych's (2017) study of CSR in agriculture of Ukraine. The authors considered the following aspects: The understanding and

implementation of CSR by agricultural enterprises, as well as the factors that motivate enterprises to provide CSR. Their study detected a low level of understanding of the concept of CSR. Indeed, most businesses operate on CSR irregularly, and there appears to be a lack of programmes or budgeting for social activities. The study also showed that the main factors contributing to the development of CSR can be tax reduction, changes in legislation, public opinion, personal experience, and positive consequences. One method for assessing the levels of CSR in Ukrainian enterprises in the tourism sector was described by Kubareva et al. (2018). The authors suggested assessing social responsibility based on a balanced scorecard (BSC approach), using the following parameters:

- Number of tourists' positive reviews;
- A metric calculated using a combination of the number of average daily visitors to official sites, as well as the number of views over a particular month;
- The level of trust of business partners (travel agencies) in tourist enterprises (calculated as a percentage);
- The number of concluded deals with hotels and air carriers that adhere to the principles of CSR;
- A questionnaire comprising questions about the level of job satisfaction of employees with working conditions based on a 5-item Likert 5-item (calculated as a percentage);
- The number of CSR development programmes with staff participation;
- The Transparency Corporate Reporting Index (calculated as a percentage);
- The number of social projects aimed at developing the local community and society in a particular year;
- The number of franchises (Kubareva et al. 2018).

In addition, the authors identified four groups of stakeholders (consumers, business communities, employees, and society), and discovered that the indicators for 'society' and 'employees' significantly impacted the number of franchises (but found no such impact for 'business communities' and 'consumers').

These methods have predominantly been used to externally assess the level of CSR. Indeed, surveys have been conducted on entrepreneurs and top managers of large companies. Moreover, data from public reports/sites have been analysed through market performance indicators, CSR projects, various socially oriented activities/actions, comparing the performance indicators of individual enterprises with each other, and using national-level data on the economy or sector level. However, it is important to remember that the social responsibility of each business entity is realised both in the internal and external environments. Moreover, both external and internal CSR measures have an equally positive effect on the accumulation of intangible resources of the enterprise and on the growth of the market value (Hawn and Ioannou 2015). That is, social responsibility should be assessed not only as the company's responsibility to society, but also to its employees. Accordingly, internal social responsibility includes a business' activities in relation to its own employees – everything related to the development of human resources in the enterprise. On the one hand, the employees are stakeholders of an enterprise, but, on the other, they are also its main source of productivity and efficiency, and the most vital resources in the firm's management. Accordingly, the study of the internal component of CSR (i.e., interactions with staff) is highly relevant.

Certain studies within the literature have already been working in this direction. For example, Witek-Crabb (2019) classified all CSR determinants as external or internal. Moreover, 'level of CSR commitment also depends on the pressure of the employees on issues related to employment conditions, safety standards and employment stability'. Longo et al. (2005) examined a number of employee-related issues as indicators of CSP, including 'employees' health and safety at work, development of workers' skills, wellbeing and satisfaction of workers, quality of work, and social equity. It should be noted here that the factor 'employee satisfaction' has been criticised by some researchers. For instance, Wood (2010) argued that 'measures of employee satisfaction have occasionally been used as a surrogate for CSP, but there is no reason to believe that this is a valid or reliable CSP measure'.

Obeidat (2016) found a significant positive impact of CSR (both internal and external) and employee engagement on organisational effectiveness. The basis for data collection and analysis is a field study in which respondents answer proposed questions. Moreover, the level of employee

engagement is also assessed on the basis of interviews – a concept is borrowed from (Ferreira and De Oliveira 2014).

Further studies have focused on internal CSR research. Van Buren (2005) proposed a significant revision of the CSP model to focus on employee concerns. Corley et al. (2001) offered evidence that the actions of public affairs managers can have unintended consequences for internal stakeholders – primarily employees. However, it should be noted that some works have studied only one enterprises (e.g. Fedotova and Plekan 2017), whereas others have provided proposals which lack practical verification (e.g. Dziuba and Ziuzina 2012). Accordingly, in light of the above review, it seems clear that the degree of research on the impact of social capital on business performance is currently insufficient. The importance of this impact remains underestimated despite its key importance in the current conditions of Ukraine's economic development due to its significant adaptability and relatively low cost.

The current study differs from others in that it focuses on assessing internal CSR – that is, a company's responsibility to its employees. For this purpose, we deemed it pertinent to use the financial statements of the enterprises under investigation. It has been widely established that most of the existing approaches to evaluation have been based on the use of non-financial information. We believe that the proposed method complements the existing ones and allows us to examine the phenomenon from a slightly different angle, thereby allowing a more comprehensive evaluation. Furthermore, we would argue that companies' financial performance affects their attitudes towards employee management, not vice versa. Such ideas have been confirmed within the literature (e.g. Pelozo 2009). Firstly, the implementation of internal CSR measures according to certain perspectives requires an assessment of the intermediate results. Practitioners need CSR assessment tools that are simple and non-time-consuming. Secondly, the collection and use of non-financial data requires considerable effort and resources, but within and without the companies themselves. Additionally, this kind of activity is not typical for companies. Thirdly, financial indicators are the result of team activities for a certain period and, based on them, conclusions can be drawn about certain aspects of social responsibility to employees. Fourthly, the profitability and value of Ukrainian enterprises increasingly depend not only on their efforts at the production, economic, and market levels, but also on their activities and practical achievements in the field of social responsibility. The approach suggested in this article can thus serve these aims.

The main purpose of the suggested approach is to determine the effectiveness of CSR by comparing the benefits and costs, reducing and preventing environmental risks, creating a database to inform stakeholders in the context of meeting their interests, facilitating CSR decision making, as well as improving enterprises' image and reputation.

Data and methods

Due to the impossibility of creating a single framework complete with full information, research on social responsibility has tended to use a variety of different methods. Accordingly, we opted to apply a multi-case study approach as our research design. This method is suitable for the purpose of comparing and replicating findings due to the approach's ability to produce more compelling and robust evidence, particularly when compared to a single-case study method (Yin 2017).

We chose five Ukrainian enterprises in five regions in order to yield different findings. However, these enterprises were chosen according to their similarities (the same type of economic activity, namely food industry and beverage production) to retrieve research from identical institutional set-ups. During the selection process, the last point to consider was the CSR information published by these different enterprises. Indeed, we sought to cover enterprises independently of the fullness or existence of their CSR reports. The characteristics of the selected entities are provided in Table 1.

Table 1. Characteristics of enterprises for the analytical assessment of social responsibility

Characteristic	Private JSC Obolon	Private JSC Volyn Holding	PJSC Mondelis Ukraine	PJSC Chernivtsi Bakery	Private JSC VO Odessa Cannery
Location	Kyiv	Volyn region	Sumy region	Chernivtsi region	Odessa
Share capital	32,512.7	100	1,883.3	1,027.5	56,950.2
Average number of employees, persons	2,624	754	1,108	598	800
The main activities	Production of beer and soft drinks	Production of spices and seasonings	Production of cocoa, chocolate, and sugar confectionery	Production of bread and bakery products	Processing and canning of fruits and vegetables
Assets, thousand UAH	6,881,460	641,095	3,277,901	104,517	237,371
Net income from sales of products (goods, works, services), thousand UAH	4,963,232	1,315,898	4,801,280	186,210	348,366
Public information about CSR activity	Full	Full	Partial	Weak	Weak

Source: 'YouControl' (2019).

It seems reasonable to provide an additional explanation regarding the characteristics – public information about CSR activity. We defined the following indicators: website presence, press and website information about CSR, investing in social programmes, and the presence of non-financial reports. The presented enterprises were chosen by differentiated involvement (for additional information, see Table 2).

Table 2. Public information about enterprises' CSR activity

Enterprises	Website presence	Information about CSR on the website and press	Investing in social programmes	Non-financial reports presence
Private JSC Obolon	–		+	+
Private JSC Volyn Holding	+	+	+	+
PJSC Mondelis Ukraine	+	+	+	–
PJSC Chernivtsi Bakery	+	–	–	–
Private JSC VO Odessa Cannery	+	–	–	–

Source: collected by the authors from enterprises' websites.

Staff members are an enterprise's primary stakeholders. When added value is created, relations between management levels arise in accordance with the functional duties of employees. While there seems to be no direct connection between the indicators, this is not to say that this would not be possible indirectly. The indicators to assess the level of internal social responsibility with the feasibility substantiation of their application are presented in Table 3.

We determined the reference indicators for Ukrainian food enterprises in order to make our calculations. In particular, as a basis for determining the reference values of the gross income ratio (considering the inflation index), we took the industry average indicators from official statistics for the share of intangible assets, labour productivity, the level of contributions to social activities, average wages, and debt ratio to employees. As for other indicators, the reference was chosen based on the Western practices of countries with socially-oriented economies. The share of managers was determined by using the Greykunas-formula (Zelinskyj 2015). Furthermore, we determined the reference ratio of management wages to the wages of all staff based on the differentiation of wages in the range of 4.5–5.5. This ration serves to stimulate the top management to develop professional skills, but is intended to avoid creating tensions within working teams. Accordingly, the reference values of management wages and the values of management wage costs were similarly calculated. Typically, labour cost percentages average 25% to 35% of gross sales. Appropriate percentages vary by industry, but manufacturers tend to try to keep the figure below 35% (Adkins 2019).

Table 3. Indicators and methods of their calculation to assess the social responsibility of the enterprise (on the example of stuff)

No.	Indicator	Calculation formula	Feasibility substantiation of indicators using
1.	Gross income ratio	Gross profit/ Sales income	The increase in gross income ratio is due to the greater trust of consumers on the one hand and the coordinated work of the team in the direction of reducing costs on the other. This serves as evidence for employees' loyalty as main stakeholders.
2.	Share of intangible assets, %	Intangible assets/ Assets*100%	The increase in the value of this indicator shows an increase in 'intellectual' assets, and consequently, an increase in the value of the enterprise. This distinguishes the company on the positive side, because the intangible assets are mostly created by highly-qualified professionals. Moreover, having a larger share of such employees increases growth opportunities for other staff members, making such enterprises more competitive in the long run. This also increases the level of employee optimism.
3.	Labour productivity per wages fund	Sales income/ Wages fund	Using this indicator is important because employee incentives are one of the most effective ways of increasing the profitability of an enterprise. This contributes to the formation of a positive attitude to the enterprise through the creation of additional jobs and the emergence of a social effect.
4.	The average level of contributions to social activities per employee, currency units per person	Social activities expenses/ The average number of employees	Enterprises that conduct their economic activities, bearing in mind the issues of social responsibility and partnership, have a more positive image in society. Accordingly, working at the enterprise is an important value for employees.
5.	The average level of wages on the enterprise, currency units per person	Wage expenses/ The average number of employees	The level of wages, especially in Ukraine, is highly important for assessing the enterprise's responsibility on the part of employees.
6.	Debt ratio to employees	Current accounts payable for wages/ Wage costs	The decrease in this indicator shows an increase in the responsibility of the management to employees and enhances employee loyalty to the company. It also increases employee motivation and adds to the interest in positive results.
7.	Management wages, currency units per person	Management wage costs/ Average number of managers	The level of wages of management should be commensurate with their functional responsibilities and to the level of wages of employees. In addition, this indicator should be not only economically, but also socially, justified.
8.	Share of managers, %	Number of managers/ Average number of employees * 100%	This indicator, similar to the previous one, is also able to distinguish a positive or negative image of the enterprise for the main stakeholders (employees) depending on its value. In addition, it must be justified.
9.	The share of wage costs in total costs	Wage costs/ Total costs	An increase in this indicator shows a rise in the complexity of production on one hand, but may also indicate an increase in intellectual labour. However, the growing influence of both factors lead to increasing employee attention for social responsibility.
10.	Management wage costs from general expenses	Management wage costs/ Total costs	The assessment of this indicator should be conducted in combination with the previous indicator. That is, the increase or decrease of the share must be proportional.
11.	The ratio of management wages to the wages of all staff	Management wages/ Wages throughout the enterprise	An increase in this indicator shows an increase in the gap between the levels of wages on the enterprise, deepens disparities, and complicates the coordination of interests. In addition, this situation worsens the atmosphere at the enterprise, and negatively affects the level of motivation and interest in the final results.

Source: authors' own proposal.

As noted above, mutually-inverse and conflicting indicators need to be avoided. The share of the managers, the debt ratio to employees, and management wage costs from general expenses showed an inverse impact to internal social responsibility. In this case, we used reference values as numerators in order to change the relation type to direct. Additional explanations are required for the

indicators on the average level of contributions to social activities per employee, the average level of wages, and management wages. Their values were changed by years. In this case, reference values were used as denominators in order to provide comparativeness by years. Furthermore, we estimated the ratio of management wages to the wages of all staff and the share of wage costs at intervals using MS Excel's 'IF' function. This meant that, if mentioned indicators were in references values, the value would be 1, and otherwise 0.5. Further to the numeral material, we included the letter indicators: If the value of the calculated indicator corresponded to (or was higher than) the reference indicator, we marked the letter 'P'; if the value of the calculated indicator did not correspond to (or was lower than) the reference indicator, we marked the letter 'N'. When calculating the multiple coefficient, we used the product of the coefficients by using the natural logarithm. We decided to use the LN function in Excel for the multiplication of coefficients in order to reduce the impact of different kinds of data and establish estimation for unusual observations. The primary limitation regarding the use of the proposed indicators related to not including the multiple coefficient calculation in the absence of current data, meaning that the quantity of indicators could change. We also added some limitations regarding gross income ratio. Thus, if this indicator was less than zero, it was not considered when calculating the multiple coefficient due to its being economically illogical.

Results and discussions

We performed analytical calculations of the indicators for the indirect assessment of social responsibility of enterprises. The calculations and analytical studies of Private JSC Obolon, the signatory of the global agreement with appropriate actions in the direction of social responsibility, are presented in Table 4.

Table 4. Analytical assessment of internal social responsibility for Private JSC Obolon

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.05	-0.18	-0.11	0.05	0.04	-0.01
Share of intangible assets, %	0.675	1.141	0.966	0.477	0.121	-0.55
Labour productivity per wages fund	10.31	10.73	13.05	11.15	11.08	0.77
The average level of contributions to social activities per employee, thousand UAH	24.0	31.64	30.90	23.68	36.53	11.63
The average level of wages on the enterprise, thousand UAH	70.4	89.3	87.5	111.7	172.2	101.8
Debt ratio to employees	0.04	0.04	0.03	0.04	0.11	0.07
Share of managers, %	0.24	0.48	0.5	0.46	0.5	0.26
Management wage costs from general expenses	0.002	0.004	0.004	0.004	0.003	0.001
Management wages, thousand UAH	556.9	716.1	863.6	930.2	1,190.0	633.1
The ratio of management wages to the wages of all staff	7.91	8.02	9.87	8.33	6.91	-1.00
The share of wage costs in total costs	0.11	0.10	0.08	0.09	0.09	-0.02

Source: calculated by the authors based on the official reports of Private JSC Obolon.

The gross income ratio of the enterprise was negative between 2014–2015, which indicates a period of crisis. The decrease in the share of intangible assets was negative, thus suggesting a lack of attention to intellectual capital. At the same time, the growth of labour productivity per wages fund (except for 2015 due to the growth rate of prices outpacing wage growth) evidenced an increase in the level of internal social responsibility. The level of management wages grew at a slower pace than the enterprise's average level of wages, which led to the reduction of the gap between salary levels from 7.91 to 6.91, despite the fact that the share of managers remained unchanged. More positively, the share of wage costs declined, thus indicating a reduction in manual

labour costs. In general, the reporting indicators of Obolon Private JSC showed a significant level of attention paid to the principles of social responsibility to employees.

Private JSC Volyn Holding was profitable during 2013–2017. However, the company had a very low share of intangible assets, which declined over the previous five years (Table 5).

Table 5. Analytical assessment of internal social responsibility for Private JSC Volyn Holding

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.05	0.05	0.04	0.07	0.07	0.02
Share of intangible assets, %	0.008	0.004	0.003	0.002	0.003	–0.005
Labour productivity per wages fund	22.85	25.12	30.51	31.45	21.16	–1.70
The average level of contributions to social activities per employee, thousand UAH	14.81	16.01	18.33	11.79	17.02	2.21
The average level of wages on the enterprise, thousand UAH	39.5	39.3	50.8	54.8	82.5	43
Debt ratio to employees	0.002	0.002	0.001	0.001	0.002	–
Share of managers, %	1.8	1.7	2	1.8	2.1	0.3
Management wage costs from general expenses	0.007	0.007	0.005	0.005	0.008	0.001
Management wages, thousand UAH	348.3	370.6	387.5	409.9	624.1	275.8
The ratio of management wages to the wages of all staff	8.82	9.43	7.63	7.48	7.57	–1.25
The share of wage costs in total costs	0.05	0.04	0.03	0.03	0.05	0.00

Source: calculated by the authors based on the official reports of Private JSC Volyn Holding.

Private JSC Volyn Holding had a high level of labour productivity per wages fund. At the same time, the level of contributions to social activities indicated a low salary when compared to Private JSC Obolon. However, on a positive note, the company had a small level of debt to employees. The share of managers increased between 2013–2017 and amounted to 2.12% of the total number of employees. Accordingly, the cost of management wages increased. Although the ratio of management wages to the wages of all staff decreased in 2017 (as compared to 2013), they increased in the same year compared to 2016, which deepened the differentiation in employee incomes.

Between 2013–2017, PJSC Mondelis Ukraine was profitable, as evidenced by the gross income ratio (Table 6). The share of intangible assets was low – which could be taken as negative – which indicates a lack of attention paid to the enterprise's intellectual capital. In contrast, and more positively, the company had a relatively high level of labour productivity. At the same time, the average level of contributions to social activities per employee was much higher than in the previous company, which reflects a much higher level of wages. Low debt to employees could be taken as proof for a responsible attitude towards employees.

It should be noted that the share of managers had a steady downward trend. Accordingly, the share of management wage cost decreased, although the management wages increased. This combination of indicators may indicate that the company increased its management efficiency. It could also be indicative of more effective team communication, reduced tension, and greater staff cohesion – all of which are signs of an appropriate level of internal CSR.

Table 6. Analytical assessment of internal social responsibility for PJSC Mondelis Ukraine

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.08	0.07	0.07	0.02	0.06	−0.02
Share of intangible assets, %	0.064	0.071	0.076	0.115	0.073	0.01
Labour productivity per wages fund	20.54	22.21	20.10	17.72	22.38	1.84
The average level of contributions to social activities per employee, thousand UAH	30.33	33.21	34.75	27.65	32.56	2.23
The average level of wages on the enterprise, thousand UAH	122.3	134.9	153.6	185.5	193.7	71.4
Debt ratio to employees	0.016	0.020	0.013	0.020	0.026	0.01
Share of managers, %	1.5	1.4	1.9	1.4	0.9	−0.6
Management wage costs from general expenses	0.008	0.008	0.012	0.007	0.004	–
Management wages, thousand UAH	1,004.3	1,386.8	1,582.1	1,640.7	1,730.0	725.7
The ratio of management wages to the wages of all staff	8.21	10.28	10.30	8.84	8.93	0.72
The share of wage costs in total costs	0.06	0.05	0.06	0.06	0.05	−0.01

Source: calculated by the authors based on the official reports of PJSC Mondelis Ukraine.

At PJSC Chernivtsi Bakery, the five-year study period saw a significant reduction in the gross income ratio (by 0.18), which is a signal of the need for systemic action (Table 7).

Table 7. Analytical assessment of internal social responsibility for PJSC Chernivtsi Bakery

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.19	0.22	0.17	0.02	0.01	−0.18
Share of intangible assets, %	0.004	0.001	0	0.092	0.076	0.07
Labour productivity per wages fund	7.90	7.03	9.64	6.22	4.64	−3.27
The average level of contributions to social activities per employee, thousand UAH	11.09	12.08	15.20	11.68	13.41	2.33
The average level of wages on the enterprise, thousand UAH	31.4	34.1	41.2	58.2	67.2	35.8
Debt ratio to employees	0.052	0.054	0.051	0.060	0.053	–
Share of managers, %	2.7	3.01	3.7	3.6	3.2	0.5
Management wage costs from general expenses	0.017	0.017	0.012	0.018	0.022	0.00
Management wages, thousand UAH	160.6	153.6	153.7	167.6	201.8	41.2
The ratio of management wages to the wages of all staff	5.12	4.52	3.73	2.88	3.01	−2.12
The share of wage costs in total costs	0.13	0.13	0.09	0.17	0.23	0.10

Source: calculated by the authors based on the official reports of PJSC Chernivtsi Bakery.

The share of intangible assets of PJSC Chernivtsi Bakery increased slightly in 2017, but remained low (0.076% of total assets). The enterprise's labour productivity decreased significantly (by 3.27 in 2017 compared to 2013). Contributions to social activities per employee increased slightly. The average level of wages on the enterprise increased by UAH 35,800 over the study period, and the management wages by UAH 41,200. The ratio of management wages to the wages of all staff decreased by 2.12, and amounted to 3.01. The share of wage costs increased significantly

(by 0.1). The decrease in gross income and labour productivity indicated the existing problems at the enterprise. Accordingly, at such an enterprise, the issue of CSR was afforded little attention.

The gross income ratio of PJSC VO Odessa Cannery increased by 0.04 between 2013–2017 (Table 8).

Table 8. Analytical assessment of internal social responsibility for PJSC Odessa Cannery

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.11	0.11	0.08	0.10	0.15	0.04
Share of intangible assets, %	0.015	0.014	0.015	0.009	0.051	0.04
Labour productivity per wages fund	10.57	10.73	14.24	11.83	7.51	–3.06
The average level of contributions to social activities per employee, thousand UAH	10.95	11.95	12.49	9.12	12.70	1.74
The average level of wages on the enterprise, thousand UAH	30.1	32.5	33.8	42.1	58.0	27.9
Debt ratio to employees	0.023	0.024	0.021	0.019	0.018	–0.005
Share of managers, %	1.8	1.8	2.1	2.3	2.3	0.5
Management wage costs from general expenses	0.009	0.009	0.008	0.010	0.012	0.003
Management wages, thousand UAH	161.0	173.2	183.8	209.5	234.2	73.2
The ratio of management wages to the wages of all staff	5.35	5.32	5.43	4.98	4.04	–1.31
The share of wage costs in total costs	0.10	0.09	0.07	0.09	0.13	0.03

Source: calculated by the authors based on the official reports of PJSC Odessa Cannery.

The share of intangible assets was not significant, but increased significantly in 2017 and amounted to 0.051%. The company saw a reduction in labour productivity (by 3.06 in 2017 compared to 2013). At the same time, the level of contributions to social activities was reflective of a low salary at the company, despite an increase of UAH 1,740 in 2017 compared to 2013.

We observed a growth both in the average level of wages within PJSC VO Odessa Cannery (by UAH 27,900) and in the management wages (by UAH 73,200). On the positive side, the company reduced its debt to employees. The share of managers increased during 2013–2017 by 0.5% and amounted to 2.3% of the total number of employees. Accordingly, the cost of management wages increased. The ratio of management wages to the wages of all staff decreased by 1.31 in 2017 compared to 2013.

Our next step was to compare the calculated indicators for the selected enterprises with the reference indicators in order to calculate the multiple coefficient. Based on this data, we were able to draw conclusions regarding the development of the enterprise's internal social responsibility. For greater clarity, such comparisons are presented in tabular form (see Table 9).

Private JSC Obolon regularly published non-financial reports. In a somewhat negative finding for the company, its multiple coefficient of internal social responsibility was found to have decreased. The number of indicators with the 'P' marker decreased from 9 in 2013 to 6 in 2017, and those with the 'N' marker increased from 2 in 2013 to 5 in 2017.

Table 9. The multiple coefficient calculation of internal social responsibility for Private JSC Obolon

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	1.01	-3.61	-2.2	1.04	0.71
Share of intangible assets, %	0.5	1.35	2.28	1.93	0.95	0.24
Labour productivity per wages fund	10	1.03	1.07	1.30	1.11	1.11
The average level of contributions to social activities per employee, thousand UAH	25	1.00	1.27	1.24	0.95	1.46
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	1.98	2.36	1.99	2.08	2.29
Debt ratio to employees	0,05	1.17	1.16	1.90	1.15	0.44
Share of managers, %	1	4.11	2.08	2.00	2.18	2.00
Management wage costs from general expenses, thousand UAH	0,01	4.86	2.71	2.48	2.80	3.27
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	9.92	11.82	9.96	10.38	11.44
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	5.08	4.95	4.98	3.68	1.65	
Total 'P' indicators	9	8	8	7	6	
Total 'N' indicators	2	2	2	4	5	

Source: calculated based on the authors' suggestions.

The calculation of the indices for the analytical assessment of social responsibility of Private JSC Volyn Holding is presented in Table 10.

Table 10. The multiple coefficient calculation of internal social responsibility for Private JSC Volyn Holding

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	0.97	0.93	0.70	1.44	1.35
Share of intangible assets, %	0.5	0.02	0.01	0.01	0.004	0.01
Labour productivity per wages fund	10	2.29	2.51	3.05	3.15	2.12
The average level of contributions to social activities per employee, thousand UAH	25	0.59	0.64	0.73	0.47	0.68
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	1.11	1.04	1.16	1.02	1.10
Debt ratio to employees	0.05	31.98	21.21	81.38	43.25	31.10
Share of managers, %	1	0.56	0.60	0.50	0.55	0.47
Management wage costs from general expenses	0.01	1.37	1.46	1.96	2.17	1.24
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	5.57	5.20	5.78	5.10	5.48
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0,35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	-0.18	-1.25	0.25	-0.46	-1.01	
Total "P" indicators	5	5	5	6	6	
Total "N" indicators	6	6	6	5	5	

Source: calculated based on the authors' suggestions.

Private JSC Volyn Holding had a negative multiple coefficient of internal social responsibility. Between 2013–2015, the number of indicators with the 'P' and 'N' markers were 5 and 6, and 6 and 5 between 2016–2017, respectively. In this case, we observed a situation where the multiple coefficient of internal social responsibility, assessed on the basis of the suggested indicators, slightly differed from what the enterprise publicly declared. This could perhaps have been due to the company paying more attention to external, rather than internal, CSR.

PJSC Mondelis Ukraine had the best multiple coefficient of internal social responsibility (its value during the studied period was stable). The number of indicators with the 'P' marker increased from 7 in 2013 to 8 in 2017, and those with the 'N' marker decreased from 4 in 2013 to 3 in 2017 (Table 11).

Table 11. The multiple coefficient calculation of internal social responsibility for PJSC Mondelis Ukraine

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	1.58	1.36	1.45	0.50	1.16
Share of intangible assets, %	0.5	0.13	0.14	0.15	0.23	0.15
Labour productivity per wages fund	10	2.05	2.22	2.01	1.77	2.24
The average level of contributions to social activities per employee, thousand UAH	25	1.21	1.33	1.39	1.11	1.30
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	3.45	3.57	3.50	3.45	2.57
Debt ratio to employees	0.05	3.15	2.56	3.81	2.44	1.93
Share of managers, %	1	0.65	0.72	0.53	0.72	1.11
Management wage costs from general expenses	0.01	1.33	1.32	0.85	1.41	2.44
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	17.25	17.84	17.50	17.24	12.86
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	3.02	3.09	2.80	2.10	3.05	
Total 'P' indicators	7	7	6	6	8	
Total 'N' indicators	4	4	5	5	3	

Source: calculated based on the authors' suggestions.

This situation shows that the management of the enterprise had a balanced approach to the implementation of policies of both external and internal social responsibility.

The calculation of indices for the analytical assessment of internal social responsibility of PJSC Chernivtsi Bakery is presented in Table 12.

PJSC Chernivtsi Bakery's level of internal social responsibility was negative between 2013–2017. The number of indicators with the 'P' marker during 2013–2016 was 2, which decreased to 1 in 2017. The number of indicators with the N marker increased from 9 in 2013 to 10 in 2017.

Private JSC VO Odessa Cannery also had a negative multiple coefficient of internal social responsibility between 2013–2017 (Table 13). The dynamics of the expression of social responsibility was found to be uneven.

Table 12. The multiple coefficient calculation of internal social responsibility for PJSC Chernivtsi Bakery

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	3.71	4.31	3.36	0.48	0.20
Share of intangible assets, %	0.5	0.01	0.003	0	0.18	0.15
Labour productivity per wages fund	10	0.79	0.70	0.96	0.62	0.46
The average level of contributions to social activities per employee, thousand UAH	25	0.44	0.48	0.61	0.47	0.54
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	0.88	0.90	0.94	1.08	0.89
Debt ratio to employees	0.05	0.97	0.93	0.98	0.83	0.95
Share of managers, %	1	0.37	0.33	0.29	0.28	0.31
Management wage costs from general expenses	0.01	0.57	0.58	0.83	0.55	0.46
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	4.42	4.50	4.69	5.41	4.46
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	–6.05	–7.31	–0.68	–5.35	–6.91	
Total 'P' indicators	2	2	2	2	1	
Total 'N' indicators	9	9	9	9	10	

Source: calculated based on the authors' suggestions.

Table 13. The multiple coefficient calculation of internal social responsibility for Private JSC VO Odessa Cannery

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	2.16	2.17	1.67	2.01	2.95
Share of intangible assets, %	0.5	0.03	0.03	0.03	0.02	0.10
Labour productivity per wages fund	10	1.06	1.07	1.42	1.18	0.75
The average level of contributions to social activities per employee, thousand UAH	25	0.44	0.48	0.50	0.36	0.51
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	0.85	0.86	0.77	0.78	0.77
Debt ratio to employees	0.05	2.16	2.09	2.42	2.69	2.74
Share of managers, %	1	0.56	0.56	0.47	0.43	0.44
Management wage costs from general expenses	0.01	1.08	1.14	1.19	1.00	0.83
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	4.24	4.30	3.85	3.91	3.85
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	–3.34	–3.22	–3.34	–4.25	–2.45	
Total 'P' indicators	5	5	5	5	3	
Total 'N' indicators	6	6	6	6	8	

Source: calculated based on the authors' suggestions.

In the cases of the last two enterprises, the assessment of internal CSR coincided with the previously formed opinion. This seems to demonstrate that properly interpreted financial and economic indicators can be used to determine social responsibility.

Based on the calculated data, we identified a pattern of the dynamics of internal social responsibility in the context of assessing financial and economic indicators (Table 14).

Table 14. Possible tendency of the internal social responsibility level (according to the multiple coefficient)

Enterprise	Dynamics of the multiple coefficient by years					Tendency
	2013	2014	2015	2016	2017	
Private JSC 'OBOLON'	5.08	4.95	4.98	3.68	1.65	Decreased
Private JSC 'Volyn Holding'	-0.18	-1.25	0.25	-0.46	-1.01	Decreased
PJSC 'Mondelis Ukraine'	3.02	3.09	2.80	2.10	3.05	Stable (positive)
PJSC 'Chernivtsi bakery'	-6.05	-7.31	-0.68	-5.35	-6.91	Uneven
Private JSC VO 'Odessa cannery'	-3.34	-3.22	-3.34	-4.25	-2.45	Stable (negative)

Source: authors' suggestions.

Accordingly, based on the calculated data it is possible to estimate the tendency of dynamic change to internal CSR levels. Thus, PJSC Chernivtsi Bakery had an uneven tendency of change. This same tendency could be said to have decreased for both Private JSC Volyn Holding and Private JSC Obolon. Changes in internal CSR for Private JSC Odessa Cannery can be defined as stable, though in a negative manner. Moreover, the tendency for change in internal CSR for PJSC Mondelis Ukraine could be described as positively stable.

Conclusions

In some, our findings allowed us to draw certain conclusions. The proposed method is an attempt to solve the problem of measuring the social responsibility of enterprises to their employees with the help of economic indicators. The method could be described as understandable, easy to implement due to the simplicity of calculations, straightforward to interpret, and convenient due to is requiring little time and no unnecessary (additional) costs. All of the indicators can be calculated on a regular basis by an enterprise's economic specialist. Moreover, the number of indicators is insignificant, while the indicators themselves are consistent. Of course, while this approach is not free from criticism, we would argue that it deserves attention, and could be improved, altered, and supplemented in further research.

Given the need to study new trends in economy socialisation, it is advisable to use not only economic factors, but also those relating to social responsibility when making management decisions. Accordingly, determining the level of internal social responsibility with the help of indicators of official financial statements can not only provide a transparent assessment of an enterprise's socialisation, but also facilitate the identification of its change tendency by years. The obtained results can be used to improve the methods of developing social responsibility indicators, which can characterise enterprise's level of involvement in the development of society and the level of responsibility in ensuring the interests of all participants of a social partnership.

The proposed analytical tools would allow one to evaluate enterprises on their level of social responsibility development both in general and in their dynamics in order to more accurately identify problem areas. In terms of further research, we would describe it as objectively necessary to check the practical applicability of the proposed method through making appropriate calculations for a larger number of enterprises and economic activities. Thus, the results of the assessment of the level of internal social responsibility can form the basis for the development of regional and national policies on the management of social responsibility, the determination of the relevant areas of cooperation between government, business, and society (as well as the identification of any potential problems and opportunities of such cooperation), and act as a mechanism for identifying economic, environmental, and social problems that could be solved through the participation of businesses.

The main goal of the current study was to identify an accurate method of assessing social responsibility using economic methods based on the calculation and interpretation of financial and economic indicators. At the same time, we aimed to determine which indicators are constantly calculated in the process of accounting and assessing economic activity, and thus guarantee covering a wide range of enterprises for assessment. A key point of the analytical tool is its sole focus on publicly-available information (i.e., data from enterprises' official reports). We aimed our research at trying to assess social responsibility towards employees as the main stakeholders of an enterprise. Obviously as with all research, our paper is not without limitations. First, we only used data from the food industry. As such, applying our approach to other industries could yield different results. Second, we exclusively used data from financial statements. It is a common practice to cover CSR practices in non-financial statements. However, unlike the financial statements of Ukrainian enterprises, their non-financial equivalents are not uniform and have a different structure of data submission. The third limitation concerns the availability of financial statement data. For example, in Ukraine, only private and public joint-stock companies are available publicly, while many companies operate in the form of business partnerships. The inaccessibility of such data significantly reduces the ability to compare businesses with one another. However, we see prospects for further development of the proposed financial reporting toolkit for assessing social responsibility to other groups of stakeholders. For example, a company's relationship with suppliers of resources or financial capital is described through such economic indicators as the average turnover time of inventories, the average repayment period of accounts payable, and liquidity. For example, the fact that raw materials recipient companies try to optimise the repayment periods of short-term payables for their own benefit does not need to be proved. It is clear that this is possible if allowed by the counterparty company. This will happen only if there is trust between the subjects. Trust can be established through an enterprise's adherence to the principles of social responsibility, such as by complying to existing agreements. A similar situation occurs in a company's relations with financial (i.e., banking) institutions. If a company's credit history is negative or the liquidity ratios are unsatisfactory, then there is little reason for the company to count on trust and loans from banks. Based on a similar logic, it is possible to define a list of financial reporting indicators for assessing social responsibility to interested groups (i.e., owners, partners, consumers, the state, local communities, and society).

References

- Ackerman, R., and Bauer, R. A., 1976, *Corporate Social Responsiveness: The Modern Dilemma*. Reston: Reston Publishing Company.
- Adkins, W., 2019, 'How to calculate the employee labor percentage', *Houston Chronicle*. 1 January. Available at: <https://smallbusiness.chron.com/calculate-employee-labor-percentage-15980.html> (accessed: 15.01.2023).
- Akin, A., and Yilmaz, I., 2016, 'Drivers of corporate social responsibility disclosures: Evidence from the Turkish banking sector', *Procedia Economics and Finance*, 38, 2–7. Available at: [https://doi.org/10.1016/S2212-5671\(16\)30171-X](https://doi.org/10.1016/S2212-5671(16)30171-X) (accessed: 15.01.2022).
- Boyle, E. J., Higgins, M. M., and Rhee, S. G., 1997, 'Stock market reaction to ethical initiatives of defence contractors: Theory and evidence', *Critical Perspectives on Accounting*, 8, 541–561. Available at: <https://doi.org/10.1006/cpac.1997.0124> (accessed: 15.01.2022).
- Carroll, A. B., 1991, 'The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders', *Business Horizons*, 34(4), 39–48.
- Carlisle, Y. M., and Faulkner, D. O., 2004, 'Corporate social responsibility: A stages framework', *European Business Journal*, 16(4), 143–151.
- Committee for Economic Development (CED), 1971, *Social Responsibilities of Business Corporations*. New York: Committee for Economic Development.
- Corley, K. G., Cochran, P. L. and Comstock, T. G., 2001, 'Image and the impact of public affairs management on internal stakeholders', *Journal of Public Affairs*, 1(1), 53–68.
- Dziuba, O. M., and Ziuzina, V. P., 2012, Ефективність внутрішньої складової корпоративної соціальної відповідальності підприємства [The effectiveness of the internal component of corporate social responsibility]. *Вісник Національного університету "Львівська політехніка" [Bulletin of the National University 'Lviv Polytechnic']*, 725, 277–281.

- Fedotova, Y., and Plekan, U., 2017, Канонічні кореляції як інструмент управління підприємств приладобудування у забезпеченні соціальної відповідальності перед власними працівниками [The canonical correlation as the management tool in providing social responsibility to employees at the instrument-making enterprises]. *Актуальні проблеми інноваційної економіки* [Actual Problems of Innovative Economy], 4, 73–80.
- Ferreira, P., and De Oliveira, E. R., 2014, 'Does corporate social responsibility impact on employee engagement?', *Journal of Workplace Learning*, 26(3/4), 232–247. DOI: [dx.doi.org/10.1108/JWL-09-2013-0070](https://doi.org/10.1108/JWL-09-2013-0070)
- Freeman, R. E., 1984, *Strategic Management: A Stakeholder Approach*. New York: Cambridge University Press.
- Friedman, M., 1971, *An Economist's Protest: Columns in Political Economy*. Glen Ridge: Thomas Horton and Company.
- Glebova, I. et al., 2013, 'Evaluation of corporate social responsibility of Russian companies based on nonfinancial reporting', *Middle East Journal of Scientific Research*, 13, 143–148. Available at: <https://doi.org/10.5829/idosi.mejsr.2013.13.sesh.1426>.
- Harrysson, M., Schoder, D., and Tavakoli, A., 2016, 'The evolution of social technologies', *McKinsey Quarterly*, June(3), 8–12.
- Hawn, O., and Ioannou, I., 2016, 'Mind the gap: The interplay between external and internal actions in the case of corporate social responsibility'. *Strategic Management Journal*, 37(13), 2569–2588. <https://doi.org/10.1002/smj.2464>
- Centre for CSR Development Ukraine, 2019, 'Index of transparency of websites of Ukrainian companies 2019', 9 November. Available at: <https://csr-ukraine.org/research/transp-index-2019/> (accessed: 16.02.2022).
- Inoue, Y., and Lee, S., 2011, 'Effects of different dimensions of corporate social responsibility on corporate financial performance in tourism-related industries', *Tourism Management*, 32(4), 790–804. DOI: <https://doi.org/10.1016/j.tourman.2010.06.019>
- Jankalova, M., 2016, 'Approaches to the evaluation of corporate social responsibility', *Procedia Economics and Finance*, 39, 580–587. DOI: [https://doi.org/10.1016/S2212-5671\(16\)30302-1](https://doi.org/10.1016/S2212-5671(16)30302-1)
- Kanji, R., and Agrawal, R., 2016, 'Models of corporate social responsibility: Comparison, evolution and convergence', *IIM Kozhikode Society & Management Review*, 5(2), 141–155.
- Ksondz, S., Yaskal, I., and Madei, I., 2013, 'Концептуальні підходи до кількісного визначення іміджу підприємства' [Conceptual approaches to the quantitative determination of the image of the enterprise]. *Ефективна економіка* [Effective Economy], 3. Available at: http://nbuv.gov.ua/UJRN/efek_2013_3_46.
- Kubareva, I., Maliarchuk, O., and Pohuda, N., 2018, 'Corporate social responsibility of Ukrainian tourist enterprises: Identity, strategy and performance', *Eastern Journal of European Studies*, 9(2), 145–167.
- Law of Ukraine No. 2404-VI of 1 July, 2010, *Про державно-приватне партнерство* [About public-private partnerships]. Available at: <https://zakon.rada.gov.ua/laws/show/2404-17> (accessed: 15.02.2022).
- Law of Ukraine No. 2862-VI of 23 December, 2010, *Про соціальний діалог* [About the social dialogue in Ukraine]. Available at: <https://zakon.rada.gov.ua/laws/show/2862-17> (accessed: 12.02.2022).
- Law of Ukraine No. 2164-VIII of 5 October, 2019, *Про внесення змін до Закону України "Про бухгалтерський облік та фінансову звітність в Україні" щодо удосконалення деяких положень* [On amendments to the law of Ukraine 'and 'On accounting and financial reporting in Ukraine to improve certain provisions']. Available at: <http://zakon.rada.gov.ua/laws/show/2164-19> (accessed: 16.02.2022).
- Lee, M.-T., 2020, 'Corporate social responsibility and investment efficiency: Evidence from an Asian emerging market', *DLSU Business & Economics Review*, 29(2), 1–16.
- Levkivska, L., and Levkovych, I., 2017, 'Social responsibility in Ukrainian agriculture: The regional issue', *Eastern Journal of European Studies*, 8(1), 97–114.
- Longo, M., Mura, M., and Bonoli, A., 2005, 'Corporate social responsibility and corporate performance: The case of Italian SMEs', *Corporate Governance*, 5(4), 28–42. Available at: doi.org/10.1108/14720700510616578
- Lozano, R., 2015, 'A holistic perspective on corporate sustainability drivers', *Corporate Social Responsibility and Environmental Management*, 22, 32–44. <https://doi.org/10.1002/csr.1325>
- Luo, X. et al., 2015, 'Corporate social performance, analyst stock recommendations, and firm future returns', *Strategic Management Journal*, 36(1), 123–136. <https://doi.org/10.1002/smj.2219>

- Madueno, J. H. et al., 2016, 'Relationship between corporate social responsibility and competitive performance in Spanish SMEs: Empirical evidence from a stakeholders' perspective', *BRQ Business Research Quarterly*, 19(1), 55–72. <https://doi.org/10.1016/j.brq.2015.06.002>
- Marquez, A., and Fombrun, C. J., 2005, 'Measuring corporate social responsibility', *Corporate Reputation Review*, 7(4), 304–308. DOI: <https://doi.org/10.1057/palgrave.crr.1540228>
- Meehan, J., Meehan, K., and Richards, A., 2006, 'Corporate social responsibility: 3C-SR model', *International Journal of Social Economics*, 33(5–6), 386–398.
- Mutuc, E. B., Lee, J.-S., and Tsai, F.-S., 2020, 'Corporate social responsibility and earnings management: Evidence from controversial and non-controversial sectors in Asia', *DLSU Business & Economics Review*, 29(2), 17–28.
- Obeidat, B., 2016, 'Exploring the relationship between corporate social responsibility, employee engagement, and organizational performance: The case of Jordanian mobile telecommunication companies', *International Journal of Communications, Network and System Sciences*, 9, 361–386. DOI: 10.4236/ijcns.2016.99032.
- Peloza, J., 2009, 'The challenge of measuring financial impacts from investments in corporate social performance', *Journal of Management*, 35 (6), pp. 1518–1541. DOI: <https://doi.org/10.1177/0149206309335188>
- Pinkston, T. S., and Carroll, A. B., 1996, 'A retrospective examination of CSR orientations: Have they changed?' *Journal of Business Ethics*, 15(2), 199–206.
- Private JSC "OBOLON". Official site (n.d), 'Corporate responsibility'. Retrieved November 2, 2019. Available at: <https://obolon.ua/ua> (accessed: 15.01.2023).
- Private JSC VO "Odessa cannery". Official site (n.d), Retrieved October 14, 2019. Available at: <https://okz.od.ua/uk/> (accessed: 15.01.2023).
- Private JSC "Volyn Holding". Official site (n.d), 'Creating common values'. Retrieved October 25, 2019. Available at: <https://www.nestle.ua/jobs/vacancy/volyn-holding> (accessed: 15.01.2023).
- Private PJSC "Chernivtsi bakery". Official site (n.d), Retrieved October 23, 2019. Available at: <https://hlib.cv.ua/> (accessed: 15.01.2023).
- Private PJSC "Mondelis Ukraine". Official site (n.d), 'Snacking made right'. Retrieved October 17, 2019. Available at: <https://www.mondelezinternational.com/Ukraine> (accessed: 15.01.2023).
- Sethi, S. Prakash (ed.), 1974, *The Unstable Ground: Corporate Social Policy in a Dynamic Society*. Los Angeles: Melville Pub. Co.
- Simpson, W. G., and Kohers, T., 2002, 'The link between corporate social and financial performance: Evidence from the banking industry', *Journal of Business Ethics*, 35, 97–109. DOI: <https://doi.org/10.1023/A:1013082525900>
- Schwartz, M. S., and Carroll, A. B., 2003, 'Corporate social responsibility: A three-domain approach', *Business Ethics Quarterly*, 13(4), 503–530.
- State Statistics Service of Ukraine, 2019, 'Ukrainian input-output table at basic prices for 2017', *Statistical Publication*, p. 46.
- State Statistics Service of Ukraine, 2020, 'Business activities'. Available at: <http://www.ukrstat.gov.ua> (accessed: 18.03.2020).
- Van Buren, H. J. III, 2005, 'An employee-centered model of corporate social performance', *Business Ethics Quarterly*, 15, 687–709.
- Visagie, J. C., Sibanda, V., and Coetzee, R., 2019, 'The evolution and models of corporate social responsibility', *The Journal of Social Sciences Research*, 5(12), 1885–1892. DOI: 10.32861/jssr.512.1885.1892
- Witek-Crabb, A., 2019, 'CSR maturity in Polish listed companies: A qualitative diagnosis based on a progression model', *Sustainability*, 11, 1736. DOI:10.3390/su11061736
- Wood, D. J., 2010, 'Measuring corporate social performance: A review', *International Journal of Management Reviews*, 12, 50–84. DOI: 10.1111/j.1468-2370.2009.00274.x
- Wright, P., and Ferris, S., 1997, 'Agency conflict and corporate strategy: The effect of divestment on corporate value', *Strategic Management Journal*, 18(1), 77–83.
- Wu, M.-W., and Shen, C.-H., 2013, 'Corporate social responsibility in the banking industry: Motives and financial performance', *Journal of Banking & Finance*, 37, 3529–3547. DOI: <https://doi.org/10.1016/j.jbankfin.2013.04.023>
- Yilmaz, İ., 2012, *CSR Disclosures: Interaction of Social and Financial Performance*. Saarbrücken: Lambert Academic Publishing.
- Yin, R. K., 2017, *Case Study Research and Applications: Design and Methods*. Los Angeles: Sage.

- YouControl, 2019, *Finances*. Retrieved November 11, 2019, available at: https://youcontrol.com.ua/en/our_possibility (accessed: 15.02.2022).
- Zelinskyj, S., 2015, Стан кадрового забезпечення державного управління [The state of the staffing of state administration]. *Наукові записки Інституту законодавства Верховної Ради України*. [Scientific notes of the Institute of Legislation of the Verkhovna Rada of Ukraine], 4, 91–99.

The Role of Education in the Social Entrepreneurship Ecosystem Development in Poland and Ukraine

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Abstract

This paper examines the role of educational support in social entrepreneurship development in Poland and Ukraine based on comparative case studies and a computer-assisted web interviewing method. The research investigates cross-country and cross-institutional differences in education concerning social entrepreneurship. The paper considers the different levels of social entrepreneurship education in primary and secondary school, university, and non-formal education. It is established that students at all levels of education should have an entrepreneurial mindset, which is a prerequisite for sustainable development. The key directions for developing education regarding social entrepreneurship in Ukraine are identified.

Keywords

social entrepreneurship, sustainable development, ecosystem, educational level, non-formal education

Introduction

Social entrepreneurship is an important element of the socio-economic development of Poland and Ukraine, as it is a mechanism for solving economic, social, cultural, and environmental problems. In particular, due to the growing importance of sustainable development, entrepreneurship education has recently expanded into the field of sustainable and social entrepreneurship in order to raise awareness and shape attitudes and expectations toward social problems.

The following elements of the social entrepreneurship ecosystem should play a role in sustainable development. First, the state should participate in sustainable development through top-down initiatives, including incentive mechanisms which should determine the institutional framework and strategy for the development of social entrepreneurship in the regions. Second, communities must participate as the “customers” of services; thus, social enterprises should be created to achieve bottom-up social change and promote the well-being of society. Third, businesses should participate as investors and mentors, and, finally, education should be used as an instrument to form entrepreneurial competences and provide access to knowledge. It is important to note that the development of social entrepreneurship significantly impacts the accumulation of social capital, which is essential for the formation of civil society and community development under the conditions of a decentralisation process.

This research aims to investigate educational support for the development of social entrepreneurship at different educational levels in Poland and Ukraine and to identify the key directions for developing education about social entrepreneurship in Ukraine. Methodologically, this research is based on comparing the educational support of social entrepreneurship in Polish and Ukrainian regions, analysing case studies to identify successful examples of social enterprises, and using computer-assisted web interviewing to investigate the difference in Ukrainian students’ awareness of social entrepreneurship and its potential to solve social problems based on their university degree programme.

Literature Review: Social Entrepreneurship Ecosystem

Social entrepreneurship is a term that was first used by a handful of people and organisations during the 1980s and 1990s within the broad arenas of civil society and the development of regions. In Defourny's (2001) view, social entrepreneurship is characterised by economic features; it is a long-term activity aimed at producing goods or selling services. Nicholls (2006) notes that social entrepreneurship is best understood as a multidimensional and dynamic construct moving across various intersections between the public, private and social sectors.

The first Polish attempt to define social entrepreneurship was made in 2008. For the draft Polish Act on social entrepreneurship, a definition of social entrepreneurship as a socially useful economic activity conducted in the developing area of social economy was proposed (Palma 2015). According to Cardella et al. (2021), the social component of entrepreneurship includes the ability to identify innovative solutions for specific social problems. Thus, innovation is a key element of social entrepreneurs. Indeed, social entrepreneurship is distinguished from other forms of entrepreneurship by its interest in innovation for a relevant enterprise in society (Cardella et al. 2021).

More generally, the main purpose of social entrepreneurs is systematic social change, not only through the creation of social innovations but, above all, through their practical implementation. Social entrepreneurship positively affects sustainable development through its related activities and by facilitating job creation and, thus, increasing the aggregate demand of the economy, stimulating economic growth and regional development (Licite-Kurbe and Gintere 2021).

The European social entrepreneurship ecosystem includes educational institutions, authorities, social investors, donors, business associations and incubators, accelerators, social enterprises, and communities (Figure 1). Social entrepreneurship in Ukraine is becoming more widespread due, first of all, to its ability to solve socioeconomic problems. However, this type of activity is still quite young, and the ecosystem of social entrepreneurship in Ukraine is not yet fully formed; only social enterprises, incubators, accelerators, and financial institutions are participants. The potential of educational institutions to form competences in the field of social entrepreneurship is not fully realised. Moreover, civil society institutions are insufficiently involved in the development of social entrepreneurship. The development of this economic sector in Ukraine is further hampered by an imperfect regulatory framework, a lack of effective state support mechanisms, insufficient access to investment, and a low level of social participation.

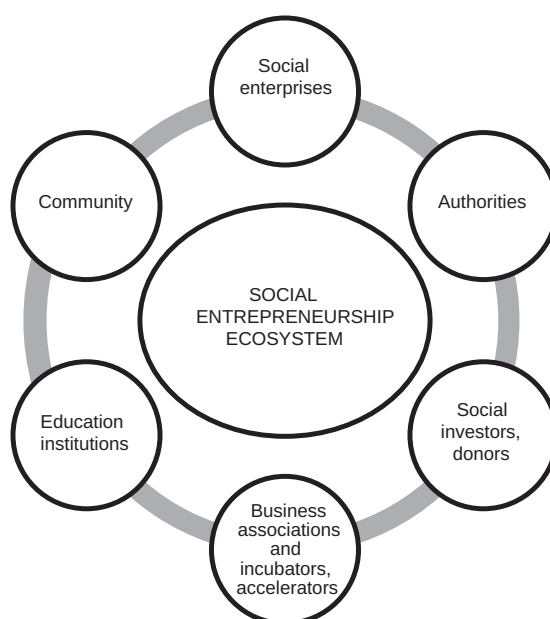


Figure 1. The European social entrepreneurship ecosystem

Source: Own elaboration.

Social entrepreneurship fosters the development of two of the eight competences for lifelong learning, recognised by the Council of the European Union as essential for citizens' personal fulfilment, employability, and active citizenship. The first, entrepreneurial competence, is the capacity to act upon opportunities and ideas and transform them into value for others. It is founded upon creativity, critical thinking, and problem-solving, as well as having the initiative, perseverance, and ability to work collaboratively in order to plan and manage projects of cultural, social, or financial value. The second, citizenship competence, refers to the ability to act as a responsible citizen and fully participate in civic and social life based on understanding social, economic, legal, and political concepts and structures (Key Competences for Lifelong Learning 2019).

Social entrepreneurship and education are thus two extraordinary areas that must be improved to foster the human development necessary to build the society of the future. Education needs social entrepreneurship just as social entrepreneurship needs education. Furthermore, students at all educational levels must be equipped with a general entrepreneurial mindset, a prerequisite for social entrepreneurship and sustainable development (Shahid and Alarif 2021).

Currently, social entrepreneurship and social economy programmes are taught at schools and universities, and interest in this area is growing in proportion to the number of positive examples of social enterprises in Poland and Ukraine.

Educational support for the development of social entrepreneurship at the school level

Formal and informal education programmes on social and solidarity economics are currently being created for students in grades 4–8 in Poland. Social Economy Support Centres, in cooperation with the Regional Social Policy Centre, are running educational activities dedicated to students in primary schools. Among the various social economy projects implemented by the Regional Social Policy Centre and its partners in the Wielkopolskie voivodeship, several educational initiatives were undertaken in the years 2011–2015, including an educational programme for upper secondary schools.

In 2019, Poland developed an educational programme in the field of social entrepreneurship for the children and youth of Polish primary schools. The programme was commissioned by the Regional Centre for Social Policy in Poznań and developed on the initiative of the Association of Social Cooperatives, Poznań. The programme used the framework of the Management of the Social Economy project funded by the European Social Fund of the European Union.

The programme has a modular structure; its individual components can be used during both formal education (grades 6–8 of primary school) and non-formal education (through seminars, meetings with representatives of non-governmental organisations, and other people working with youth). The duration of the programme is estimated to be 32 teaching hours. The specific goals of the programme are as follows:

- 1) Acquiring and deepening students' knowledge of social entrepreneurship and its key concepts, such as social cooperative, student cooperative, social enterprise, social exclusion, and non-governmental organisation.
- 2) Developing competences (including key competences) in the field of entrepreneurship, including critical thinking, knowledge of economics and law, perseverance, leadership skills, the basics of marketing, and searching for and selecting information.
- 3) Developing competences in the field of civic awareness, such as cooperation, responsibility, communication, creativity, and innovation (Przedsiębiorczość społeczna 2019).

One example of good practice is the Social Economy Support Centre in Gdańsk Good Work (Dobra Robota), which implements the project Solidarity Economics. In this framework, the groups of participating schools work on social programmes that positively influence the local community. The culmination of the work is defending the idea in front of a professional jury.

In 2020, Ukraine's Ministry of Education and Science introduced the curriculum of the elective course Social School Entrepreneurship for students in grades 8–11 of general secondary education. The course programme was developed within the project Establishment of Social School

Enterprises in Rural Areas and Small Towns of Ukraine to Encourage Young People to Social Entrepreneurship in Ivano-Frankivsk, Zhytomyr and Donetsk Regions. This project is being implemented by the Eastern Europe Foundation and the German non-governmental organization (NGO) ChildFund Deutschland e.V., with the financial support of Germany's Federal Ministry for Economic Cooperation and Development. Other regions of Ukraine have also joined this initiative, particularly the Vinnyts'ka, Kyivs'ka, Ternopils'ka, L'vivs'ka, Odes'ka and Lugans'ka oblasts. The elective course is designed to take 35 (1 hour per week) or 70 (2 hours per week) hours and to be mastered by students during one school year. Sections of the programme cover all stages of business activity, namely the essence of entrepreneurial activity and social school entrepreneurship; prerequisites for creating a social school enterprise; business planning of social school entrepreneurship; implementation stages of social school entrepreneurship; and presentation of a social school entrepreneurship (Curriculum of the Elective Course 2020).

Social school entrepreneurship is the activity of students in an educational institution aimed toward the production and further sale of goods or services under the supervision of senior curators and consultants. Income from such activities is distributed to the development of enterprise production, the social mission and initiatives of the school, and cognitive activities for students. The goal of social school entrepreneurship is education and gaining experience, not making a profit. Thus, social school entrepreneurship seeks to overcome the distance between academic theory and real life.

Since Ukraine's Ministry of Education and Science recommended a course on social school entrepreneurship for implementation in educational institutions, the number of school enterprises has increased each year.

One example of a social school enterprise in Ukraine is NoMotloH, which was founded on 1 April, 2021, in the Donetsk region. NoMotloH helps involve citizens solve community problems by changing the culture of garbage management, particularly regarding clothing, and encouraging citizens to reuse things such as sewing buttons from old skirts, bags of dresses and jeans, and more. The enterprise has equipment for sublimation on fabrics, as well as cups and plates. Items can also be made on the 3D printer. Students sell most of the goods through an online platform, and proceeds go toward solving social problems in the community.

Another example of a school social enterprise is Black Cherry, which was founded on 1 September, 2021, in Vinnyts'ka Oblast. Black Cherry is a photo studio founded by the students of Vinnytsia Technical Lyceum. In addition to full-time photographers, the team includes a manager, content maker, media director, and accountant. The purpose of the school enterprise is to create content for social media advertising, hold photo exhibitions, and create videos for public organisations and social enterprises.

Hence, school social entrepreneurship teaches empathy and sensitivity, critical thinking, and the ability to work collaboratively. These are skills that should be formed not only at school but also throughout life at all educational levels.

Education of social entrepreneurship at the university level

Social entrepreneurship education at the university level is a key link in the establishment of new social enterprises, the cultivation of innovative talents, and scientific and technological innovation (Liu et al. 2021).

Educational initiatives in the field of social entrepreneurship have been implemented in Poland since 2003, when the Act of 24 April 2003 on Public Benefit and Volunteer Work and the Act of 13 June 2003 on Social Employment were enacted. These Acts were important for building the institutional and legal foundations of the social economy in Poland. There are currently several universities that offer higher education in social economics and social entrepreneurship. In addition, some universities have bachelor's and master's programmes for social entrepreneurship (full-time and part-time), as well as some elective courses. Table 1 presents Polish universities that are pioneers in social entrepreneurship education.

For instance, the Małopolska School of Public Administration at the University of Economics in Krakow offered higher education in social economy in 2006–2008. The programme included a total

Table 1. Educational support for the development of social entrepreneurship at the university level in Poland

Year of introduction	Name of the university	University level of study	Field of study	Programme or course structure
2006	Małopolska School of Public Administration at the University of Economics in Krakow	postgraduate studies	Programme in social economy	Social sciences, management of social economy entities, finance and financing of social projects, legal environment of the social economy, social innovations (200 teaching hours)
2006	University of Warsaw, Institute of Social Policy	Postgraduate studies	Programme in management of the social economy	Social economy institutions in local development, legal and financial foundations of social entrepreneurship and social enterprise management (230 teaching hours)
2008	School of Social Sciences in Lublin	Postgraduate studies	Programme in social economy	Management, leadership, the business of the social enterprise, fundraising (including EU funding), innovative testing with a transnational component, the exchange of experiences with the practices of the social economy, and the development of an innovative project
2008	Pedagogical University of National Education Commission in Krakow	Three-year full-time or part-time bachelor programme	Programme in social economy	Practical economic knowledge of entrepreneurial and innovative attitudes that determine the activity of graduates on the labour market, in the social environment and in running their own business
2006	University of Economics in Krakow	Master's programme	Course in social economy	Financing of social economy entities
2008	Institute of Sociology of Adam Mickiewicz University in Poznan	Master's programme	"Social Economy" course in the field of social work	Idea and objectives of the social economy; history of social economy in Poland; social economy in public policies at the national and regional level; centres of support for social economy, amongst others which examine social economy entities (social cooperatives, therapy centres, centres and clubs of social integration, nongovernmental organizations conducting economic activity and other entities)

Source: Own elaboration.

of 200 teaching hours, grouped according to the following modules: social sciences, the management of social economy entities, finance and financing of social projects, legal environment of the social economy, and social innovations.

The second academic centre educating in the field of social economy in the period 2006–2007 was the University of Warsaw. The Institute of Social Policy offered two courses entitled Management of the Social Economy. The programme included 230 teaching hours and consisted of three main teaching blocks: social economy institutions in local development, legal and financial foundations of social entrepreneurship, and social enterprise management. An important specificity of the programme at the University of Warsaw was its focus on developing the practical skills and competences needed to manage social projects (Stanienda et al. 2017).

A great example of formal education regarding social entrepreneurship in Poland is the post-graduate studies in the field of social economy at the School of Social Sciences in Lublin. The aim of the postgraduate studies is to provide up-to-date knowledge in the field of social economy. Students acquire knowledge and develop skills in management, leadership, business, fundraising (including EU funding), innovative testing with a transnational component, and obtaining practical guidelines for the preparation of applications. They also exchange experiences with the practitioners of the social economy (lecturers) and develop of an innovative project (Social Enterprise Sector Snapshot Around the Baltic Sea 2015).

As part of formal education at the university level, the Pedagogical University of National Education Commission in Krakow offers a three-year full-time or part-time bachelor's programme in the field of social economy. The aim of the programme is to provide students with modern and practical economic knowledge and education concerning the entrepreneurial and innovative attitudes that determine the activity of graduates on the labour market, in the social environment, and in running their own businesses.

An interesting initiative at the university level was the 2006 launch of a master's seminar in social economy at the Department of Economics and International Relations at the University of Economics in Krakow. The course of particular focus was the financing of social economy entities (Stanienda et al. 2017).

Another example of social entrepreneurship education in Poland is the Institute of Sociology at the Adam Mickiewicz University in Poznan, which provides a Social Economy course for master's students in the field of social work. Throughout the course, master's students study topics such as the idea and objectives of the social economy; the history of social economy in Poland; the social economy in public policies at the national and regional level; and centres of support for social economy, including social cooperatives, therapy centres, centres and clubs of social integration, NGOs conducting economic activity, and other entities. Moreover, students learn about tools for supporting and promoting the social economy.

The Adam Mickiewicz University in Poznan also implements the project Laboratory of Social Initiatives (LIS). The main objective of the project is to facilitate the entry of 160 students from the Department of Political Sciences and Journalism into the labour market by developing and equipping them with competences expected by employers. More specifically, the project aims to raise the students' skills levels regarding professionalism, communication, analytics, information technology, and entrepreneurship. The LIS project consists of three blocks – Social Innovation, Entrepreneurship, and Professional Competences – and includes study visits to potential employers. The Entrepreneurship block includes courses such as Social Entrepreneurship and Own Company Step by Step. In these courses, students learn about grassroots entrepreneurship, socially involved and socially useful business, how to effectively search for the right business models, and how to raise financial and social capital. In addition, the Social Entrepreneurship course includes study visits to successful social enterprises in Poland.

In contrast to Poland, where a degree in social economics can be obtained at both the bachelor's and master's level, in Ukraine, several universities have introduced Social Entrepreneurship as a separate course. Table 2 presents Ukrainian universities that are pioneers in social entrepreneurship education.

The elective course Social Entrepreneurship (90 teaching hours; 3 ECTS points) was first held in 2016 in a bachelor programme at the Lviv Business School at the Ukrainian Catholic University.

The course includes several topics, such as tools for finding solutions to social problems, approaches to formulating the vision and mission of a social enterprise, and features of business modelling in social business. Similarly, in 2018, the School of Social Work at the National University of Kyiv-Mohyla Academy launched a selective Social Entrepreneurship course. In the course, bachelor's students study topics such as basic approaches to understanding social entrepreneurship, basic principles of the creation and development of social enterprise, and financial and organisational aspects of social business.

Table 2. Educational support for the development of social entrepreneurship at the university level in Ukraine

Year of introduction	Name of the university	University level of study	Field of study	Programme or course structure
2016	Lviv Business School at the Ukrainian Catholic University	Bachelor	Elective course Social Entrepreneurship in social work	Tools for finding solutions to social problems, approaches to formulating the vision and mission of a social enterprise, features of business modelling in social business (90 teaching hours; 3 ECTS points)
2018	School of Social Work at the National University of Kyiv-Mohyla Academy	Bachelor	Elective course Social Entrepreneurship in social work	Basic approaches to understanding social entrepreneurship, basic principles of the creation and development of social enterprise, financial and organizational aspects of social business (90 teaching hours; 3 ECTS points)
2016	Chernihiv Polytechnic National University	Master	Course Social Entrepreneurship in social work	Methodological basis of social enterprise; entrepreneurship in future social professionals; general characteristics of the stages of social enterprise planning; the role of cooperation and the exchange of experience between stakeholders; marketing of a social enterprise; financial component of a social enterprise; organizational requirements for a social enterprise; features of social reporting and auditing (120 teaching hours; 4 ECTS points)

Source: Own elaboration.

The same year, a Social Entrepreneurship course was introduced to the master's degree in social work at the Chernihiv Polytechnic National University. The course covers 120 teaching hours (4 ECTS points). The aim of the course is to learn about the nature of social entrepreneurship and the formation of professional competences concerning the basic stages of social enterprise planning. Within the course, master's students study topics such as the methodological basis of social enterprise, entrepreneurship in future social professionals, the general characteristics of the stages of social enterprise planning, the role of cooperation and the exchange of experience between stakeholders, marketing of a social enterprise, financial components of a social enterprise, organizational requirements for a social enterprise, and features of social reporting and auditing.

Thus, there has been an increase in student and institutional interest in social entrepreneurship.

Non-formal education for the development of social entrepreneurship

Providers of education and training on social entrepreneurship also exist beyond formal education institutions. The gap between public higher education and people's needs is filled by a strong and broad group of non-formal educational institutions which offer training courses on various topics connected with the social economy, mostly through supporting centres for social economy, providing complex services for people/institutions interested in social economy. The training is all available for free and in Polish (Social Enterprise Sector Snapshot Around the Baltic Sea 2015). Lifelong

learning around social enterprise represents a promising avenue to allow people in all stages of their careers to consider learning about and applying social enterprise knowledge (Borzaga et al. 2020).

For example, the Ashoka Polska organisation in Poland is part of the Ashoka European Hub, a network of social entrepreneurs operating in 93 countries around the world, established in 2014. Ashoka Polska mainly deals with the selection and mentorship of Ashoka Fellows, that is, social innovators who work to improve society.

In Ukraine, non-formal educational activities for the development of social entrepreneurship are carried out only by several NGOs and accelerators. The NGO Ukrainian Social Academy (USA) has established a Centre for Innovation in the Social Sphere, which holds lectures, workshops, and discussions on topics related to social innovation. Moreover, with the support of the global Social Impact Award, the Ukrainian Social Academy conducts an annual educational programme on social entrepreneurship in Ukraine. Anyone with an idea for social entrepreneurship can apply for the competition. After selection, participants become part of the accelerator, where they study business processes, develop marketing and communication strategies, determine the brand, and create prototypes.

Another example of a non-formal education programme for social entrepreneurship is the training course Social Entrepreneurship run by the Ukraine–Norway Project: Retraining and Social Adaptation of Military and Their Families in Ukraine, which is implemented by NGO Chernihiv European in partnership with Chernihiv Polytechnic National University and with support from the International Foundation for Social Adaptation. The aim of the project is to assist project participants in adapting to the living conditions of civil society. The participants of the training course become acquainted with the experience of social entrepreneurship in Ukraine and other European countries; learn about the main features of social entrepreneurship and what distinguishes social entrepreneurship from standard businesses; work out their own ideas of social entrepreneurship, using the Business Model Canvas by Alexander Osterwalder; and familiarise themselves with financial support opportunities for social enterprise in Ukraine. Successful examples of social enterprises founded by military veterans and their families in Ukraine are the restaurant Pizza Veterano and the online shop Front Honey.

The social enterprise Pizza Veterano was founded in 2015 and is located in Kyiv. The business component of the enterprise is its café and the sale of pizza. The social component consists of employing anti-terrorist operation (ATO) veterans, transferring “suspended pizza” to the volunteer centre at the railway station in Kyiv, and supporting children of soldiers who died in the war. Ninety per cent of their profits are reinvested in business development and 10% are directed at achieving social goals (www.facebook.com/Pizza.Veterano).

Front Honey was founded in 2017 in Shepetivka City, Vinnyts'ka Oblast. The business component includes selling natural sweets and honey desserts, and the social component is assisting in the socialisation of the ATO veterans and supporting their families. Now, 70% of Front Honey employees are retired soldiers and their wives (<https://frontmed.com.ua/ru/shop/>).

Results of the Study on Students' Awareness of Social Entrepreneurship

In October, 2021, an empirical research study was conducted with the aim of identifying differences in students' awareness of social entrepreneurship and its potential to solve social problems based on their degree programmes. The research hypothesis was that students' field of study influences their understanding of social entrepreneurship and its potential for solving social problems.

The conducted research was a pilot study. It included 810 students representing five different fields of study at Ukrainian universities (Table 3).

Table 3. Size of the research sample in particular groups

Field of study	Number of respondents	% of respondents in the field of study	% of students in the field of study in Ukraine in 2021
Humanities (including arts)	72	8.89%	8.88%
Life sciences	23	2.84%	2.88%
Medical sciences	89	10.99%	11.03%
Social sciences	425	52.47%	52.42%
Technical sciences (including agricultural sciences)	201	24.81%	24.79%
Total	810	100.00%	100.00%

Source: Own elaboration.

It was assumed that students' awareness of social entrepreneurship is differentiated by several formal and non-formal conditions specific to the field of study. Formal conditions include the type and nature of knowledge taught and the acquired skills and attitudes formed during education. Non-formal conditions include all activities undertaken by students outside of studying, which may impact their individual attitudes and knowledge, including individual interests, contact with lecturers, interests of other people in their student groups, additional classes, discussions undertaken in student groups, and volunteer work.

Differentiation was revealed in the students' knowledge concerning social entrepreneurship and its potential to solve social problems. Based on surveys conducted with the help of an original questionnaire, several trends were revealed concerning Ukrainian students representing different fields of study. The original questionnaire was developed specifically for this study.

Students rather negatively assessed the level of their knowledge of social entrepreneurship; 51% of the students assessed their knowledge of social entrepreneurship as bad, and 34% described it as moderate. There was a large difference between the assessments made by students from different fields of study. Undoubtedly, social entrepreneurship is best understood by students of social sciences, where as many as 46% considered their knowledge level good or very good. By contrast, 56% of technical and medical science students assessed their knowledge of social entrepreneurship as bad or very bad (Figure 2).

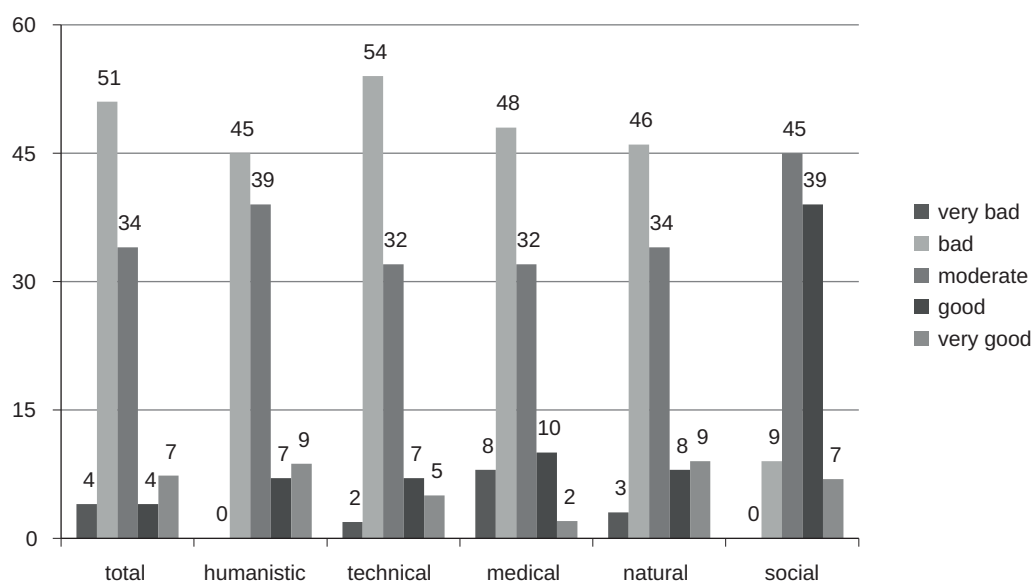


Figure 2. Assessment of students' knowledge of social entrepreneurship, % of respondents

Source: Own elaboration.

The basic source of knowledge for respondents was the information available on the internet. Social media (65%) and internet articles or podcasts (57%) showed some advantage over other traditional sources of information. It is worth noting that only 27% of the surveyed students used scientific journals to gain knowledge about social entrepreneurship. Apart from the previously mentioned internet sources, school and university education was more popular than scientific journals. Unfortunately, Ukrainian students did not attach much importance to conferences as a source of knowledge. Only 3% of students attached great importance to conferences (Table 4).

Table 4. Sources of knowledge about social entrepreneurship (% of indications)

Sources of knowledge	Total	Humanistic	Technical	Medical	Natural	Social
Internet article/podcasts	57	88	32	48	54	63
Social media	65	68	55	72	73	57
Advertisements	10	12	7	9	8	14
Scientific journals	3	2	3	2	4	3
Conferences/information meetings/training sessions	3	1	2	3	5	4
School education	24	27	8	10	10	65
University education	38	45	17	19	22	87
Radio / TV programmes	8	9	8	8	9	7
Leaflets	6	7	5	6	6	5
Posters/Billboards	5	5	6	4	7	5

Source: Own elaboration.

Furthermore, students of social sciences attached relatively high importance to classical sources of knowledge. In this group of students, university education (87%) and school education (65%) were indicated significantly more than in other groups. News via social media was the primary information source for students in the natural (73%), medical (72%), and technical (55%) sciences. Internet articles and podcasts, on the other hand, were the main source of information for students in the humanistic sciences (88%).

The main social problems that could be solved by a social enterprise, according to students, were unemployment (34%) and poverty (25%). Unemployment was the primary social problem that could be solved by a social enterprise, according to students of social (45%) and humanistic (38%) sciences. It is important to note the considerable importance that students of humanistic and social sciences attached to the social problems of internally displaced persons (IDPs) and ATOs (Table 5).

Table 5. Social problems that, in the opinion of students, a social enterprise can solve (% of indications)

Social problems	Total	Humanistic	Technical	Medical	Natural	Social
Unemployment	34	38	25	27	33	45
Poverty	25	32	19	20	24	30
Gender inequality	4	5	3	7	3	2
Unavailability of social infrastructure	3	3	5	3	2	2
Homelessness	12	9	19	7	10	15
Violence against women	7	9	5	5	7	10
Social problems of ATO veterans	12	16	7	8	10	20
Social problems of internally displaced persons (IDPs)	12	15	8	9	10	18
Social problems of disabled persons	10	8	10	10	7	15
Other social problems	8	8	12	10	3	5

Source: Own elaboration.

The hypothesis was that the area of science within which a particular field of study is conducted influences students' understanding of social entrepreneurship and its potential for solving social problems. The results of the study showed differences in awareness of social entrepreneurship between students in different fields of study. Each of the distinguished groups of students had its own, separate characteristics.

Students of the technical and medical sciences were characterised by a pessimistic assessment of their knowledge of social entrepreneurship. They drew their knowledge about this field almost exclusively from modern internet sources. Students in this field of science declared unemployment and poverty as the main social problems that social entrepreneurship can solve. In addition, students of technical science paid considerable attention to homelessness as a problem that can be solved by social enterprises.

Students of humanistic and natural sciences estimated their knowledge about social entrepreneurship to be rather low. They used modern sources of knowledge to a large extent, but they also appreciated the role of traditional sources such as university education. They declared unemployment and poverty as the main social problems that social entrepreneurship can solve.

Students of social science declared an average level of knowledge about social entrepreneurship. They used both modern sources of knowledge and traditional sources. It is important to note that for students in this field, the main source of knowledge about social entrepreneurship was education (both university and primary and secondary school), but they also paid considerable attention to modern internet resources. Students in this field of science declared unemployment and poverty as the main social problems that can be solved by social enterprises, but they also paid considerable attention to the social problems of ATO veterans and IDPs.

Conclusions

This study has demonstrated that the key elements of social entrepreneurship education in Poland and Ukraine consist of schools, universities, supporting centres for the social economy, NGOs, and accelerators.

Furthermore, the study has shown that educational institutions are implementing numerous teaching methods, including traditional lectures and seminars, case studies, business plan development, and study visits to successful social enterprises. It was found that social entrepreneurship is not currently a sufficiently developed activity in Ukraine. One of the reasons for this situation is the lack of sufficient knowledge about the nature of social entrepreneurship, its distinction from other forms of business, and its role in solving social problems and developing the regions.

The results of the study on students' awareness of social entrepreneurship demonstrated that students of various fields of study in Ukraine differ in their awareness of social entrepreneurship and its potential to solve social problems. In addition, traditional sources of knowledge about social entrepreneurship, such as university and school education, were shown to increase awareness about social entrepreneurship. Thus, students of social science, who considered their level of knowledge about social entrepreneurship to be good or very good, indicated university and school education as their main source of knowledge about social entrepreneurship. The pilot study revealed several patterns that require further testing in studies with larger sample sizes. It would also be interesting to conduct research with students from other countries, including countries from other cultural backgrounds.

While social entrepreneurship is gradually making its way into the education system in Ukraine, the concept is still relatively nascent. Education about social entrepreneurship at various educational levels in Ukraine should be informed by a systematic and interdisciplinary method. The modules in social entrepreneurship could be introduced in courses across different fields of study, thus inspiring graduates to use social entrepreneurship as a tool in their professional careers. All educational institutions should teach both the theory of social entrepreneurship and its application. Moreover, they should engage social entrepreneurs in the education process as mentors.

In closing, education about social entrepreneurship requires the support of the government. As long as governments retain control of education, they are a key partner in helping to shape an effective education system.

References

- Borzaga, C., Galera, G., Franchini, B., Chiomento, S., Nogales, R., and Carini, Ch., 2020, *Social Enterprises and Their Ecosystems in Europe: Comparative Synthesis Report*. Luxembourg: Publications Office of the European Union. Available at: <https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8274&furtherPubs=yes> (accessed: 15.01.2023).
- Cadella, G. M., Hernández-Sánchez, B. R., Monteiro, A. A., and Sánchez-García, J. C., 2021, 'Social entrepreneurship research: Intellectual structures and future perspectives', *Sustainability*, 13, 7532. DOI: <https://doi.org/10.3390/su13147532>
- Defourny, J., 2001, 'From third sector to social enterprise', in: C. Borzaga (ed.), *The Emergence of Social Enterprise*, London: Routledge.
- Key Competences for Lifelong Learning, 2019, Luxembourg: Publications Office of the European Union. Available at: <https://op.europa.eu/en/publication-detail/-/publication/297a33c8-a1f3-11e9-9d01-01aa75ed71a1/language-en> (accessed: 15.02.2023).
- Licite-Kurbe, L., and Gintere, D., 2021, 'Analysis of financial support instruments for social enterprises in Latvia', *Rural Sustainability Research*, 45(340). DOI:10.2478/plua-2021-0009
- Liu, H., Kulturel-Konak, S., and Konak, A., 2021, 'Key elements and their roles in entrepreneurship education ecosystem: Comparative review and suggestions for sustainability', *Sustainability*, 13, 10648. DOI: <https://doi.org/10.3390/su131910648>
- Ministry of Education and Science of Ukraine, 2020, Curriculum of the Elective Course "Social School Entrepreneurship" for Pupils of 8 (9, 10, 11) Classes of General Secondary Education. Available at: <https://mon.gov.ua/storage/app/media/zagalna%20serednya/programy-facultativ/2020/11/12/Navchalna-programa-SSHP-FSYE-gryf2.pdf> (accessed: 15.02.2023).
- Nicholls, A., 2006, *Social Entrepreneurship: New Model of Sustainable Social Change*, New York: Oxford University Press.
- Palma, M., 2015, *Innowacyjne modele spółdzielni socjalnych. Model spółdzielni socjalnej dla osób z zaburzeniami ze spektrum autyzmu*, Poznań: Stowarzyszenie na rzecz Spółdzielni Socjalnych.
- Przedsiębiorczość społeczna. Współpraca zamiast rywalizacji. Program edukacyjny dla szkół podstawowych, 2019, Stowarzyszenia na rzecz Spółdzielni Socjalnych.
- Shahid, S. M., and Alarif, G., 2021, 'Social entrepreneurship education: A conceptual framework and review', *The International Journal of Management Education*, 19, 100533. DOI: <https://doi.org/10.1016/j.ijme.2021.100533>
- Social Enterprise Sector Snapshot Around the Baltic Sea: Stakeholders, Education, Impact Analysis*, 2015, available at: <https://kooperationen.dk/media/114998/social-enterprise-sector-snapshot-around-the-baltic-sea-stakeholders-education-impact-analysis.pdf> (accessed: 15.01.2023).
- Staneinda, J., Gądek, A., and Płonka, M., 2017, *Przedsiębiorczość społeczna: nauka, praktyka, edukacja*, Tarnów: Wydawnictwo i Drukarnia Diecezji Tarnowskiej „Biblos”.
- Ustawa z dnia 13 czerwca 2003 r. o zatrudnieniu socjalnym. Dz.U. 2003 nr 122 poz. 1143.
- Ustawa z dnia 24 kwietnia 2003 r. o działalności pożytku publicznego i o wolontariacie. Dz.U. 2003 nr 96 poz. 873.

Environmental and Socio-Demographic Consequences of the Chornobyl Nuclear Power Plant Accident: A Historical Retrospective after 36 Years

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Abstract

The accident at the Chornobyl Nuclear Power Plant was one of the largest in human history. It is often referred to as a global event because its effects were felt not only by Ukrainians but also by the populations of Belarus, Russia, Central Europe, the Balkans and the Scandinavian Peninsula. 2022 marked the 36th anniversary of this terrible occurrence, when the history of Ukraine in the late twentieth century was divided into two parts: before the tragedy of 26 April 1986, and after it.

Today, it is important for Ukrainian society not only to recognise the significance of the catastrophe and remember its victims but also to find ways to overcome its grave consequences. This requires comprehensive research useful for developing new approaches to minimising the environmental and socio-demographic problems caused by the Chornobyl tragedy. Thus, this research has practical scientific, humanitarian and socio-political significance.

The novelty of the obtained results lies in the study's critical rethinking of the achievements of predecessors and its analysis of historical sources concerning the environmental and socio-demographic consequences of the accident at the Chornobyl Nuclear Power Plant as they manifested from 1986 to 2022.

The methodological basis of the work is empirical cognition. The use of logical-analytical methods of grouping and typology allows us to classify homogeneous events and coherently present the material of the article. The study additionally uses comparative judgment, historical-statistical and problem-chronological methods. The principles of objectivity and impartiality also play an important role in the work.

The purpose of the study is to investigate the consequences of the Chornobyl Nuclear Power Plant accident on the environmental and socio-demographic aspects of the population of Ukraine from 1986 to 2022 based on the identified set of sources. From a historical perspective, the level of pollution in the territories of Ukraine is traced, the demographic situation is monitored, and parallels are drawn between the Chornobyl disaster and the increase in incurable diseases and mortality.

In conclusion, the authors note that although 36 years have passed, the echo of this catastrophe remains tangible for the population of Ukraine. Several issues still must be solved. The first is the return to life, namely, the safe living and management of areas that have been exposed to radiation contamination, as well as the continuation of work aimed at restoring agricultural soils. Second, purposeful work must be conducted by the state to minimise social and demographic problems resulting from the Chornobyl catastrophe. In our opinion, the government should increase expenditures aimed at providing quality medical services to the population of Ukraine, as well as conduct constant monitoring of the health of those people who are at high risk in order to better detect diseases in their early stages. These groups of people include liquidators of the consequences of the accident and migrants. Such measures can stabilise the demographic situation by increasing birth rates and reducing mortality, as well as improve the health and living standards of the population of Ukraine.

Keywords

Chornobyl, accident, radiation, evacuation, ecological disaster, demographic situation, acute radiation sickness, historical retrospective

The accident at the Chornobyl Nuclear Power Plant on 26 April, 1986, was one of the largest in the history of mankind. It is often referred to as a global event because the consequences of the disaster were felt not only by Ukrainians but also by the populations of Belarus, Russia, Central Europe, the Balkans and the Scandinavian Peninsula. 26 April, 2022, marked the 36th anniversary of this tragedy.

For modern youth, the phrase “Chornobyl disaster” does not sound scary but magical. Sightseeing trips were organised to the exclusion zone until 2022, and tourists curiously explored the ghost town of Prypiat: houses, shops, hotels, food and educational institutions, abandoned a third of a century ago, caused terrible feelings. In the 1980s, life was in full swing in Prypiat, but now everything is abandoned and dilapidated. However, almost none of the tourists thought about the consequences of the tragedy. At first glance, the consequences are invisible, but in truth, they continue to threaten people's lives and health.

A vivid confirmation of this fact is the tragic event of 24 February 2022, which divided modern history into another “before” and “after”. On this day, at 5 o'clock in the morning, a full-scale war was launched by the Russian Federation, aimed at destroying Ukraine. Soon after the invasion of Ukraine, Russian troops managed to occupy the entire territory of the Chornobyl Nuclear Power Plant and took all the personnel and security of the plant hostage. The world recognised such destructive actions of the Russian aggressors as an act of nuclear terrorism, the consequences of which would be felt by the entire world. In addition, Russian soldiers began to dig trenches in the “Red Forest” and received a high dose of radiation (Radio Liberty 2022). This is clear proof that 36 years later, the dangerous consequences of the Chornobyl catastrophe still affect people's lives and health.

Therefore, after the de-occupation of the Chornobyl zone, it is important not only to recognise the catastrophe as a terrible accident and remember its victims but also to find the best ways to finally overcome its grave consequences. This will require comprehensive research to develop approaches to minimising the environmental and socio-demographic problems caused by the Chornobyl tragedy. Thus, this research has practical scientific, humanitarian and socio-political significance.

The Chornobyl disaster has been many scientists' object of research. In the historical context, this topic is reflected in the works of N. P. Baranovska. Baranovska, through a wide range of sources, highlighted the causes of the accident at the fourth power unit of the Chornobyl Nuclear Power Plant, studied the chronology of events and described the work required to minimise its consequences.

Information about the impact of the Chornobyl accident on the population is contained in the publications of such researchers as P. P. Mykhailenko, N. N. Lakiza-Sachuk, N. I. Omelianets and S. I. Pyrozhkov. However, it is worth noting that almost all of these studies were conducted in the late 20th to early 21st centuries, and, therefore, they cannot reflect the full range of negative consequences that the Ukrainian population continues to experience at the beginning of the third decade of the 21st century.

Among the unpublished sources, materials from the Central State Archive of Supreme Bodies of Power and Government of Ukraine and the Central State Archive of Public Organizations of Ukraine are of great importance for this research. They contain information on the scope of radiation contamination in the territory of Ukraine, describe the work aimed at resettling people from the exclusion zone and present data on public health in the first post-emergency years. In addition, the sources include several regulatory legislative documents that allow us to trace the state's policy aimed at ensuring social, medical and radiation protection for victims of the Chornobyl disaster.

Thus, although the historiographical and archival sources are quite representative, given the constant passage of time, it is appropriate to reconsider the tragedy's negative environmental and socio-demographic consequences for Ukrainian society over the past 36 years. The purpose of this research is therefore to study these consequences from 1986 to 2022 based on various sources and using modern methods and principles of scientific and historical knowledge. The novelty of the obtained results lies in the study's critical rethinking of the achievements of its predecessors and its analysis of historical sources concerning the environmental and socio-demographic consequences of the Chornobyl Nuclear Power Plant accident.

Research and methodology

The methodological basis of the work consists of methods of empirical cognition, as well as historical, chronological and problem-thematic methods. The use of the logical-analytical methods of grouping and typology makes it possible to classify homogeneous events and coherently present the material. The method of comparative judgment is also applied, enabling comparisons of the consequences of the Chornobyl Nuclear Power Plant accident, beginning in 1986 and ending in 2022. Historical and problem-chronological methods are additionally used to analyse the course of events during the study period. In the process of investigating the topic, the principles of objectivity and impartiality play an important role, helping to give a balanced assessment of the actions of the heads of pro-government structures and relevant ministries aimed at eliminating the power plant accident and minimising its consequences. These principles made it possible to assess the actions of both the Soviet leadership and the power structures of modern Ukraine in solving urgent problems related to the catastrophe at the Chornobyl Nuclear Power Plant from the standpoint of neutrality. In particular, both negative and positive political decisions to minimise the consequences of the disaster were analysed. Thus, the use of a wide range of research methods allows us to comprehensively and systematically examine our chosen topic.

Findings and discussion

The night between Saturday the 25th and Sunday the 26th of April, 1986, was one of the most terrible nights in the history of Ukraine. The explosion at the fourth power unit of the Chornobyl Nuclear Power Plant caused significant economic, environmental and socio-demographic consequences for Ukraine, which was part of the Soviet Union at the time. Therefore, it is not surprising that the totalitarian system, in order to avoid panic, tried to hide the scale of the accident from the public. This secrecy was manifested primarily in complete information silence: the first official announcement from the Soviet government was made on television two days later, on 28 April. Even then, the statement was made under pressure from the international community, which had learned about the accident after discovering radioactive particles on employees' clothes at the Forsmark Nuclear Power Plant in Sweden, located 1,100 kilometres from Chornobyl. Notably, the message itself was concise and contained very little information about what happened, and, therefore, the public had the impression that the threat was already localised and there was no danger to their lives or health. In addition, the leadership of Soviet Ukraine issued an order to hold May Day demonstrations in cities and villages, exposing the public to further radiation, which negatively affected the health of most Ukrainians, especially pregnant women and children, over the next 36 years.

Radioactive spread

Only in 1990 did the Verkhovna Rada of the Ukrainian SSR recognise Ukraine as an ecological disaster zone and officially approve the list of the most affected territories by radiation. The list included 81 administrative units in 12 regions of Ukraine: Vinnytsia, Volyn, Zhytomyr, Ivano-Frankivsk, Kyiv, Rivne, Sumy, Ternopil, Khmelnytskyi, Cherkasy, Chernivtsi and Chernihiv (Social, Medical and Radiation Protection of Victims in Ukraine as a Result of the Chornobyl Disaster 1998, p. 543).

The total area of the affected radioactive territories was 50,000 square kilometres. In particular, the Zhytomyr region accounted for 27.4% of the agricultural land, meadows, pastures and forests affected by radiation, the Kyiv region accounted for 23%, and the Rivne region, 22.7% (Smolii 2006, p. 585).

Emissions of radioactive isotopes of iodine, strontium, caesium and plutonium, which are recognised as the most dangerous emissions for all living organisms, emanated from the destroyed reactor of the fourth power unit of the Chornobyl Nuclear Power Plant, creating the so-called exclusion zone (2,598 square kilometres). The exclusion zone was a highly polluted territory surrounding the destroyed power unit and the plant, which became a constant source of radionuclides to the adjacent areas of the Kyiv and Zhytomyr regions (Law of Ukraine No. 3522-IV).

It is worth noting that a 3-kilometre zone around the Chornobyl Nuclear Power Plant was designed as a sanitary protection zone, according to regulatory documents concerning the process of ensuring radiation safety and sanitary control. However, after the accident at the fourth power unit, it became obvious that a much larger area was exposed to radioactive contamination. Based on research conducted during the initial stage of work responding to the tragedy, the life-threatening radiation area had a radius of 30 kilometres.

Subsequently, the situation and the impact of emissions from the “shelter” facility (built at the accident site) on the environment were more thoroughly monitored. Then, based on research conducted by specialists at the Institute of Biophysics of the Ministry of Health, the State Sanitary Epidemiological Service of Ukraine approved a 10-kilometre zone of special radiation danger.

The larger zone with a 30-kilometre radius received the official status of the Chornobyl Exclusion Zone, with a complex border determined by specific levels of pollution. At the end of 1986, its perimeter reached 223.5 kilometres, 34 of which passed along the border of Ukraine and Belarus. About 36,545 hectares of densely populated Ukrainian land fell into this disaster zone (Baranovska 1999, pp. 224–225). The most polluted areas, from which soil samples were constantly taken, were the villages around Chornobyl: Dytiatky, Mashev, Usov, Krasne, Benivka, Stara Shepelycha, Buriakivka, Zymovyshe, Kryva Hora, Strakholissia, Chystohalivka, Kopachi, Stachanka, Korohod and Ilovnytsia (Fedorenko 2014, p. 71).

Since it was deadly to live in this territory, 115,000 people were evacuated from the exclusion zone in the first year following the accident. However, the evacuation process was not completed in 1986. Since the level of pollution remained quite high in the late 1980s, and the death rate from diseases in these territories increased significantly, the process of resettling people from polluted regions continued into early 1990. As of 7 December 1990, a specially created Commission on the Chornobyl Disaster reported that “out of 12 villages of Narodychi District of Zhytomyr region in 1990, 1,203 families consisting of 3,414 persons were resettled. In addition, 18,611 persons were given special documents for resettlement to other regions of the Republic, as well as providing housing and employment. 139 families consisting of 362 persons left two villages of Podilsk District of Kyiv region” (Central State Archive... 1/22/1984). In general, the process of resettlement from these territories continued until the mid-1990s, when the resettlement of residents of the most radioactive villages of Kyiv and Zhytomyr regions was officially completed.

Ecological impacts

The consequences of radioactive contamination were devastating for the ecology of Ukraine. All objects of flora and fauna felt the maximum impact of radiation in the first 10–20 days after the disaster. However, in the summer and autumn, the radiation level decreased by about 20%, and by the end of the year, it decreased by another 10–15%.

The ecosystem was particularly damaged in the exclusion zone. The radiation effects immediately became apparent in pine forests, the death of which was recorded on the territory of about 500 hectares around the Chornobyl Nuclear Power Plant. In the first days after the accident, all the conifers simply withered, forming the infamous Red Forest through which the first evacuation buses passed. The death of entire animal populations was recorded in the same territory.

However, the greatest disaster was caused by the effects of radiation isotopes on agricultural land (4.6 million hectares), causing not only environmental but also significant economic losses (Smolii, Berenshtein and Panchenko 2000, p. 97). To rehabilitate damaged soil, a whole range of measures were carried out, including the alkalisation and re-alkalisation of pastures and meadows, as well as liming acidic soils. Soil restoration projects were carried out for 2.14 million hectares of the most polluted agricultural land (Baranovska 2011, p. 132).

Thanks to timely measures, it was possible to limit the contamination of agricultural products to permissible levels, with further positive developments toward reducing radiation. This is evidenced by the data collected from monitoring agricultural and forestry products, which has been regularly conducted since that time. In 1997, radiation contamination exceeded permissible levels in vegetables, fruits and cereals in 638 localities, and three years later, in 2000, radiation-contaminated milk from was only in 487 localities.

However, over time, the state began to curtail rehabilitation work restoring radiation-contaminated soils, purportedly due to a lack of funds. In our opinion, this was an erroneous decision, since the level of radiation was still dangerous for the life and health of people in some regions. Our conclusion is confirmed by the results of monitoring territories outside the exclusion zone that were significantly contaminated with radiation in 1986; such research was conducted in 2018 by the National Institute for Strategic Studies. Even now, some territories still have a significant level of radiation. Therefore, one of the priorities of the modern state policy concerned with minimising environmental and man-made security threats in Ukraine should be returning these territories to normal life ('Threats in the Field...').

Monitoring radiation contamination in food

An important step that saved lives was the constant monitoring of the quality of food products, including confirming the absence of radiation contamination. First, agricultural products were checked.

During the first five years after the disaster, Ukraine developed a system of radiation control for products, consisting of a network of city, district and inter-district laboratories, as well as sanitary stations. The work of these laboratories extended to all the markets of Kyiv and regional and district centres of Ukraine. All institutions were provided with radiation measuring devices manufactured by a specialized Bila Tserkva enterprise, and each institution checked their products several times, as it was indisputable that the population continued to be exposed to radiation through the consumption of agricultural products in the first years after the accident. In particular, in the Zhytomyr and Volyn regions, a dangerous level of radiation was detected in 80–95% of food consumed by the population; in some cities and villages, the contamination rate even reached 98%. Furthermore, in 70 settlements located on the border of the exclusion zone, the level of radioactive compounds in vegetables and fruits collected from household plots was three times higher than the permissible norm (Baranovska 2011, p. 131).

The situation improved only 15–17 years after the accident. In 2000–2003, specialists at the Ukrainian Academy of Agrarian Sciences analysed about 3 million samples of agricultural and forestry food products (1 million food samples in 2000, about 900,000 samples in 2001, and more than 850,000 in 2003) for radionuclides. According to the results, almost 2% of fruits, vegetables, mushrooms, berries and dairy products exceeded the maximum permissible levels of radionuclides defined by State Hygiene Standards PL-97 (National Report on the State of Technogenic and Ecological Safety in Ukraine in 2003, 2004, p. 119).

Today, all agricultural products that enter specially-built food markets are checked by laboratories (the number of which has reached 982 units), and their work is regulated by a number of documents, namely the Order of the Ministry of Agrarian Policy and Food of Ukraine (2017) "On the Regulations on the State Research Institute for Laboratory Diagnostics and Veterinary and Sanitary Expertise and the Regulations on the City, District, Inter-District State Laboratories of the State Service of Ukraine on Food Safety and Consumer Protection" ('Regulations on City...'). However, the risk of encountering products with a higher level of radiation than the permissible norms remains relevant. For example, in 2019, Volyn radioecologists took 13,973 samples of various agricultural and forestry products, and 16 were found to exceed the permissible level of radiation (3 milk products and 13 forest mushrooms and berries). Furthermore, there are many spontaneous markets in Ukraine, and their products do not pass proper verification.

Socio-demographic impact

In addition to environmental problems, the accident at the Chornobyl Nuclear Power Plant caused significant, extremely negative changes in the socio-demographic profile of Ukraine.

First, there have been noticeable changes in the geographical and demographic maps of Ukraine. As a result of the evacuation from the Chornobyl Exclusion Zone, as of the beginning of the 2020s, one city (Prypiat) and 63 rural settlements were completely depopulated (of which

more than 20 units disappeared from the state map); 11 villages were degraded and depopulated; and the city of Chornobyl was turned into a shift settlement, which now houses more than 2,000 personnel working in shifts and about 100 self-settlers who returned after the evacuation work was completed. In total, 199,000 people were evacuated from the Chornobyl district along with the city. However, as of 2018, 814 families continued to live in the zone of unconditional mandatory resettlement, including those who initially refused to move and those who returned to their native homes later.

Second, after 1986, there was a significant decrease in the birth rate in the affected areas, and the contaminated areas had the highest mortality rates of the population in comparison with other regions. Furthermore, children born between 26 April 1986 and 26 February 1987, whose parents were in the territory of the now officially designated exclusion zone at the time of the accident, had a significantly higher number of chronic diseases of the nervous system and mental disorders compared to children in other regions of Ukraine. Mortality rates remained significantly higher in radiation-contaminated areas even 10 years after the accident. For example, in eight districts of the radioactively contaminated zone of the Zhytomyr region, the death rate per 1,000 people in 1997 was 17.5, compared to 16 people per 1,000 in the region. In the most polluted districts – Narodychi, Korosten and Luhyny – the death rate per 1,000 people was 29.5, 21.9 and 21.3, respectively (Mykhailenko 1998, p. 94). This negatively impacted the demographic balance of the country. In particular, in the years following the accident, an average annual decrease in the number of people was recorded in the radioactively contaminated regions, which, since 1989, amounted to 7–13%, while in Ukraine as a whole, this indicator was 4–11% (Lakiza-Sachuk, Omelianets and Pyrozhkov 1994, p. 22).

Third, the Chornobyl disaster exposed about 4 million Ukrainians to radiation, including 2,315,900 million people (including 499,500 children) who were forced to live in a radioactively contaminated territory (Hudkov 2003, p. 22). According to medical examinations, more than 80% of patients (85% of whom were the liquidators of the accident) became disabled over the next 20 years (Poiarkov et al. 2006, p. 5). Among them, according to scientists, 60–70% lived in villages and about 30% lived in cities. Agricultural and forestry workers were the most exposed to radiation among all the demographic categories of the Ukrainian SSR, excluding liquidators and station workers. In particular, according to the All-Union Scientific Center of Medicine, which monitored radiation doses, the highest level of radiation doses was recorded in employees of rural farms, at 0.6–1.3 rem/H, and of forest estate lands, at 1.0–1.5 rem/H (Central State Archive 1/32/2671).

Health impacts

Moreover, the accident at the Chornobyl Nuclear Power Plant caused a surge in the incidence of adult and child diseases, both in the country as a whole and in the regions most affected by radiation.

The first was acute radiation sickness, with which 237 people were diagnosed in the second half of 1986 (28 of whom died). In the next two years, another 134 people were treated for the severe consequences of radiation. During the period 1987–2005, another 29 Ukrainians died from complications caused by acute radiation sickness. The most common causes of death were sudden heart failure, cancer and somato-neurological pathologies.

According to medical monitoring data, all people evacuated from the affected area showed a tendency to develop diseases of the respiratory, digestive and circulatory systems, as well as malignant neoplasms. Now, most medical scientists talk about the long-term consequences of Chornobyl, which are manifested in a triad of cancers that develop over 2 to 30 years. These are thyroid cancer, leukaemia and breast cancer.

One of the most serious consequences of the Chornobyl accident was the increase in the incidence of thyroid cancer, especially among children. From 1986 to 2002, 2,702 patients aged 0 to 18 years were treated for thyroid cancer in Ukraine. Among these patients, 1,882 were children (0–14 years old). Through 2014, the number of patients with this type of cancer continued to grow. The statistics were simply dreadful; 10,600 people fell ill with the disease, and they were those who were exposed to radiation in childhood or adolescence.

Leukaemia also began to appear mainly in the first years after the Chernobyl tragedy, and breast cancer became common in women who were exposed to a high dose of radiation while working to eliminate the consequences of the accident. According to statistics, there were 8,000 such women diagnosed with breast cancer (Radio Liberty 2016). The situation has now stabilised, but every year, doctors detect 20–30 cases of cancer in people who were exposed to a high dose of radiation in 1986.

In addition, both displaced persons and people who lived in polluted areas showed a tendency to develop mental disorders, namely, depression, insomnia and social dysfunction.

A separate category of people requiring both medical and social support is the participants in the liquidation of the Chernobyl Nuclear Power Plant accident. About 600,000 of these people are still alive today. On average, the effective radiation dose per liquidator in 1986–1987 was 163.7 mSv. In this category of people, according to the medical service, health deterioration was recorded in all classes of diseases, primary among which was oncological diseases (mainly leukaemia), as well as cardiovascular diseases and endocrine and mental disorders. As of 2021, according to the organisation Chernobyl Union, out of the 600,000 liquidators, 10% had died, and 165,000 had become disabled people of groups I, II and III (Main Directorate... 2021).

As of 2021, the total number of victims of the Chernobyl Nuclear Power Plant accident was 2.5 million ('In Ukraine 1.6 Million People...'), including 1.6 million people annually seeking help in medical institutions. Such a large figure is a clear indication that the problems associated with the terrible accident have not disappeared but still remain relevant and require concrete efforts from the modern authorities to provide financial and medical support to citizens affected by the Chernobyl disaster.

Conclusion

At the beginning of the 2010s, not all state institutions directed their efforts toward improving the social protection of these categories of Ukrainian citizens. In particular, the Cabinet of Ministers, headed by then Prime Minister Arsenii Yatseniuk, sent a number of resolutions to the Verkhovna Rada. Law 76-VIII, "On Amendments and Cancellation of Certain Legal Acts of Ukraine", was thus adopted by the Verkhovna Rada and amended Law No. 791 a-XII, "On the Legal Status of Territories Exposed to Radioactive Contamination as a Result of the Chernobyl Disaster". As a result, since 1 January 2015, the zone of enhanced radioecological control, that is, half of the contaminated territory of Ukraine, has been eliminated. This, in turn, set a precedent for depriving some Ukrainian citizens of the status of victims of the Chernobyl disaster and, therefore, of the benefits to which they are entitled. By the decision of the Supreme Court of Ukraine in January 2019, this status and related benefits remain for people who lived and worked in the former fourth zone of radioactive contamination.

Certain positive steps were taken to improve the social situation of Chernobyl victims in 2017, when the fifth President of Ukraine, Petro Poroshenko, signed Law No. 2082-VIII, "On Amendments to Article 48 of the Law of Ukraine On the Status and Social Protection of Citizens Affected by the Chernobyl Disaster". This normative legal act amended the right to receive annual rehabilitation assistance for children who lost one of their parents as a result of the Chernobyl disaster and were evacuated from the exclusion zone in 1986.

On 1 July 2021, Law No. 1584-IX, "On Amendments to the Law of Ukraine On the Status and Social Protection of Citizens Affected by the Chernobyl Disaster" was enacted, signed by the sixth President of Ukraine, Volodymyr Zelenskyi. According to this law, the minimum disability pensions and minimum pension payments to persons who became disabled as a result of the accident at the Chernobyl Nuclear Power Plant significantly increased. Despite these positive steps, work aimed at improving the social protection of this category of citizens must continue.

Thus, the echo of the Chernobyl Nuclear Power Plant accident remains noticeable for the population of Ukraine 36 years later. The unresolved tasks of minimising the consequences of the tragedy, set at the beginning of the 21st century, require modern approaches. First, a return to life must be made possible; namely, the safe living and farming of territories that have been exposed to radiation contamination must be realised, and using the latest technologies, we must restore

agricultural soils. Second, the state must stabilise the demographic situation by improving the birth rate and mortality rates, quickly detecting diseases in the population affected by the accident and providing high-quality medical services primarily to those who are classified as high-risk. Third, only by the joint efforts of Ukraine and the international community is it possible to resist the nuclear threat posed by Russia's shelling of the Zaporizhzhia Nuclear Power Plant and prevent another nuclear catastrophe, the devastating consequences of which would be felt not only by Ukraine but by the whole world.

References

- Baranovska, N., 2011, 'Vplyv Chornobylskoi katastrofy na transformatsiini protsesy u suspilstvi' ['The Impact of the Chornobyl Disaster on the Transformation Processes in Society'], *Ukrainskyi istorychnyi zhurnal*, 2, 123–142.
- Baranovska, N., 1999, *Ukraina – Chornobyl – svit: Chornobylska problema u mizhnarodnomu vymiri 1986–1999* [Ukraine – Chornobyl – the World: The Chornobyl Problem in the International Dimension 1986–1999]. Kyiv.
- Central State Archive of the Supreme Bodies of Power and Government of Ukraine (TSDVO of Ukraine). Fund 1. Series 22. Dossier 1984. Information and Reference Documents on the Chornobyl Disaster. 18 March 1988 – 16 September 1991. 142 Sheets.
- Central State Archive of the Supreme Bodies of Power and Government of Ukraine (TSDAGO of Ukraine). Fund 1. Series 32. Dossier 2671 Notes, References, Information of the Central Committee of the Communist Party on Chornobyl. 7 January 1989 – August 29, 1989. 92 Sheets.
- Fedorenko, Y., 2014, 'Stan ekolohichnoho seredovyshcha zhyttiediialnosti selian u protsesi transformatsii aharnoho sektoru: istorychnyi kontekst' ['The Situation of the Ecological Environment of Peasants in the Process of Transformation of the Agricultural Sector: Historical Context'], *Naukovi zapysky. Seriya: Istorychni nauky*, 19, 70–75.
- Hudkov, I., 2003, 'Suchasna radiatsiina sytuatsiia v aharnii sferi na terytorii Ukrainy, Rosii ta Bilorusi v zoni vplyvu avarii na Chornobylskii AES' ['Current Radiation Situation in the Agricultural Sector in Ukraine, Russia and Belarus in the Area Affected by the Chornobyl Accident'] *Dopovidi uchasnykh chetvertoi mizhnarodnoi naukovo-praktychnoi konferentsii 'Problemy silskohospodarskoi radiolohii: 17 rokiv pislia avarii na ChAES'*, Zhytomyr.
- 'In Ukraine 1.6 Million People are Still Being Treated due to the Chornobyl Accident – Ministry of Health' [Online]. Available from: <https://hromadske.ua/posts/v-ukrayini-16-miljona-lyudej-dosi-likuyutsya-cherez-avariyu-na-chornobylskij-aes-moz> (accessed: 30.08.2021).
- Lakiza-Sachuk, N., Omelianets, N. and Pyrozhkov, S., 1994, *Znachenie sotsialno-demograficheskikh posledstviy Chernobylskoy katastrofy dlya Ukrainy. Sovremennoe sostoyanie i perspektivy* [The Significance of the Socio-Demographic Consequences of the Chornobyl Disaster for Ukraine: Current State and Prospects]. Kyiv.
- Law of Ukraine No. 3522-IV (2006) 'On the National Program for Overcoming the Consequences of the Chornobyl Disaster for 2006–2010'. Available at: <http://zakon4.rada.gov.ua/laws/show/3522-15>
- Main Directorate of the Pension Fund of Ukraine in Ivano-Frankivsk Region, 2021, '35th Anniversary of the Chornobyl Accident' [Online]. Available at: <https://www.pfu.gov.ua/if/183513-35-richnytsya-avariyi-na-chaes/> (accessed: 10.08.2021).
- Mykhailenko, P., 1998, 'Do statystychnoi informatsii pro naslidky Chornobylskoi avarii' ['To Statistical Information on the Consequences of the Chornobyl Accident'], *Ekonomika APK*, 92–98.
- Natsionalna dopovid pro stan tekhnogennoi ta pryrodnoi bezpeky v Ukraini u 2003 rotsi* [National Report on the State of Technogenic and Natural Security in Ukraine in 2003], 2004, Kyiv.
- 'On Amendments and Invalidation of Certain Legislative Acts of Ukraine. Law of Ukraine, Law of Ukraine No. 76-VIII of 28.12.2014 of the Region'. Available online at: <https://zakon.rada.gov.ua/laws/show/76-19#Text> (accessed: 10.05.2022).
- 'On Amendments to Article 48 of the Law of Ukraine On the Status and Social Protection of Citizens Affected by the Chornobyl Disasters. Law Of Ukraine No. 2082-VIII 2017'. Available online at: <https://zakon.rada.gov.ua/laws/show/2082-19#Text> (accessed: 10.05.2022).
- 'On Amendments to the Law of Ukraine on the Status and Social Protection of Citizens Affected by the Chornobyl Disaster. Law of Ukraine from 29.06.2021'. No. 1584-IX. Available online at: [https:// zakon.rada.gov.ua/laws/show/1584-20#Text](https://zakon.rada.gov.ua/laws/show/1584-20#Text) (accessed: 07.05.2022).

- Poyarkov et al., 2006, *Osnovnye priority minimizatsii posledstviy avarii na ChAES na period 2001–2010 gody* [The Main Priorities for Minimising the Consequences of the Chornobyl Accident for the Period 2001–2010], Kiev.
- Radio Liberty, 2016, 'Chornobyl Victims and Medical Consequences of Radiation'. Available online at: <https://www.radiosvoboda.org/a/27677731.html> (accessed: 10.08.2021).
- Radio Liberty, 2022, 'Russian Soldiers Spent a Month Living in Trenches in the Most Dangerous Place near Chornobyl'. Available online at: <https://www.radiosvoboda.org/a/roziyski-soldaty-okopy-poblyzu-chornobylya/31790165.html> (accessed: 31.03.2023).
- 'Regulations on City, District, and Inter-District State Laboratories of the State Service of Ukraine for Food Safety and Consumer Protection'. Order of the Ministry of Agrarian Policy and Food of Ukraine No. 65 dated 9 February 2018. Available online at: <https://zakon.rada.gov.ua/laws/show/z0468-17#Text> (accessed: 17.08.2021).
- Smolii, V. A., 2006, *Istoriia ukrainskoho selianstva: Narysy v 2 kh t.* [History of the Ukrainian Peasantry: Essays in 2 Volumes], Kyiv: Naukova dumka, vol. 2.
- Smolii, V., Berenshtein L., and Panchenko, P. (eds.), 2000, *Ekologichni problemy rozbudovy hromadianskoho suspilstva v suchasni Ukraini.* [Environmental Problems of Civil Society Development in Modern Ukraine]. Kyiv.
- Sotsialnyi, medychnyi ta protyradiatsiyni zakhyst postrazhdalych v Ukraini vnaslidok Chornobylskoi katastrofy, 1998, *Zbirnyk zakonodavchych ta normatyvnykh dokumentiv 1991–1998 rr.* Kyiv.
- 'Threats in the Field of Environmental and Man-Made Security and their Impact on the State of National Security (Monitoring the Implementation of the National Security Strategy). Analytical Note'. Available online at: <https://niss.gov.ua/doslidzhennya/nacionalna-bezpeka/zagrozi-u-sferi-ekologichnoi-ta-tekhnohennoi-bezpeki-ta-ikh-vpliv> (in Ukrainian) (accessed: 7.08.2021).

Directions for Improving Ukrainian Legislation on Tourism in Post-War Times

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Abstract

It is expected that people from all over the world will visit Ukraine after its victory in the war against Russian aggression, turning Ukraine into a world-popular tourist destination. Hence, Ukrainian legislation on tourism must be improved in the post-war period. The authors analysed the current legislation on tourism in Ukraine and identified major problems that must be addressed systematically and those that should be settled in the post-war period in view of the post-war humanitarian, socio-economic, institutional, and cultural challenges. In this context, the authors proposed a set of changes to improve Ukraine's legislation on tourism on the national and institutional levels. Such changes should positively impact other socio-economic processes of reconstruction in post-war Ukraine.

Keywords

legislation on tourism, Ukraine, post-war, improvement, directions

Introduction

Ukraine is the largest country in Europe by area but receives 10 times less revenue from tourism than similar European countries such as France and Spain. Moreover, Ukraine has the lowest income from tourism per capita – only USD 118. In comparison, Poland receives 2.4 times more per capita, and the per capita rate in Spain is 8.4 times more. Overall, the income from tourism in Ukraine is only USD 5.08 billion, with 24.6 million tourists visiting each year. By contrast, Hungary is visited by 2.4 times fewer tourists, yet the revenue derived from each tourist is 2.3 times higher. Similarly, Norway is visited by 5.2 times fewer tourists, and the income per tourist is 5.7 times more, while Israel, in conditions of constant military tension and with a population 5 times smaller and a territory 27.7 times smaller than Ukraine, is visited by 8.4 times fewer tourists, but the per capita income is 9.3 times greater than that in Ukraine (Ініціативна група 2021).

The unfavourable tourism situation in Ukraine has worsened due to the COVID-19 pandemic. Additionally, because of military operations on its territory, tourism has almost entirely ceased to exist. Both domestic and international tourism, as well as participation in related activities (hotel and restaurant businesses, air transportation, insurance, excursion activities, etc.), have declined. Other factors, such as the liquidation of the state body that was responsible for tourism and the absence of a complex approach to tourism, have also negatively impacted the industry. One of the most crucial factors is the imperfect and outdated legislation regarding tourism development in Ukraine. Hence, it is urgent to create a set of proposals to save the tourism sector and return Ukraine to pre-pandemic level tourism. In the long term, we aim to achieve competitive indicators of tourism development among European countries.

First, it is necessary to seize the chance to turn Ukraine into a popular tourist destination after the war is over. International tourists would like to learn more about the country, its culture, and the places of military operations. In this context, tourism and its related activities will be in demand in the post-war socio-economic revival of Ukraine. Thus, it is expedient to create a programme for transforming Ukraine into a tourist destination.

Second, a thoughtful and complex approach is necessary to revive tourism in Ukraine and promote Ukraine as a tourist destination. Some steps have already been taken in this direction. A Reanimation Package of Reforms in Tourism (Ініціативна група 2021) was proposed by an initiative group from Kharkiv Karazin National University. In this document, several main directions for improvement were outlined, including institutional, legislative, and strategic goals.

In this study, the authors have chosen to focus on legislation, as they believe that adequate and flexible legislation responding to the current situation will be of great help in developing Ukrainian tourism.

Ukraine's legal regulation of tourism faces many problems and challenges. First, there is the need to regulate the organisation of new types of tourism (dark, military, extreme, etc.) and the certification of innovative excursion programmes related to the recent history of the war in Ukraine. For instance, to conduct a new excursion, it is necessary not only to write a proposal but also to gather several documents, including permits that certify the excursion as a tourist-ready product and confirm the right of a person to conduct the excursion.

Second, security measures must be strengthened for travellers and appropriate legal tools must be created, especially during the organisation of dark and military tourism in areas where active hostilities were carried out. For instance, it is necessary to know what state services or bodies to address to obtain a permit for safety; what safety procedures should be upheld during the tour; who can be a tour guide on such tours and what their professional skills and competence must be; and the mechanism of supporting a tourist in case of emergency.

Third, there is a lack of effective mechanisms for protecting consumers of tourist services. The current legislation does not foresee many issues. One of the most significant problems is the lack of liability insurance provided by travel companies for low-quality or incomplete provision of travel services. Tourists are forced to go to court or contact insurance companies to receive compensation or reimbursement for the cost of non-provided or low-quality services. This mechanism is too complicated and time-consuming, so most tourists avoid it. As a result, tourist companies are not interested in providing high-quality services.

Fourth, tourism activities are over-regulated, and an unnecessary workload is placed on Ukrainian businesses.

1. Fifth, there are discriminatory conditions on the activity of tourism enterprises as a mechanism of financial guarantees, which do not take into account the volume of tourist services provided by the enterprises. For example, the right of tour operators to conduct other activities and operations is limited, and there is a conflict of law regarding the permit system for the right to provide tourist support.
2. Lastly, Ukrainian legislation is not currently aligned with international law and does not take into account the experience of most countries with developed markets for tourism services.

Therefore, the current Law of Ukraine "On Tourism" needs critical rethinking in the context of post-war humanitarian, socio-economic, institutional, and cultural challenges to meet the interests and demands of society and businesses, taking into account the best international and European tourism business practices.

In general, the systematic improvement of Ukrainian legislation on tourism has not yet been the subject of research. In particular, there has been no research on the problems of the legislative provision of tourism in the post-war period. In this context, it seems expedient to outline the major areas of Ukraine's tourism legislation that must be addressed immediately and implemented in the post-war period.

Hence, the purpose of the article is to outline the main directions for improving Ukrainian legislation on tourism in post-war times. The authors aim to provide an adequate scientific and practical justification for the determined directions and are convinced that the creation of an appropriate legislative basis will support Ukrainian tourism and entrepreneurs who are engaged in the reception and service of tourists in Ukraine, making tourism a competitive economic sector in Ukraine.

Literature review

The review of the literature shows that some Ukrainian and international scholars have studied legislation on tourism development. In particular, Bobkova et al. (Бобкова et al. 2014) studied the general issues concerning the legal support of tourism as a system, forming a systematic approach to the history, current state, and prospects of legal support of tourism in different countries, as well as analysing the legislation of tourism in some countries with developed tourism.

The relationship between tourism and armed conflicts has also been examined in various articles; for example, the ongoing conflict in Israel (Mansfield 1999), Thai tourism and the Vietnam War (Suntikul 2013), and the Yugoslav Wars and tourism (Causevic 2010) have been studied. In the latter, the author showed how the Yugoslav Wars contributed to the promotion of local cultural heritage through the “tourisification” of war memories in Sarajevo. However, most articles have been devoted to the phenomena of dark (Miles 2002; Light 2017) and political tourism (Rivera 2008; Simone-Charteris and Boyd 2011). The studies focused on a wide variety of related issues: conflict sites as attractions, motives for visiting war and conflict locations, and dilemmas of how to satisfy the competing demands of those who remember and those who are willing to forget (Boyd 2016). However, the issues concerning the legislation of tourism were not touched upon in these studies.

Some issues concerning the legislation of tourism are found in works by Butler (2015) and Jakulin (2016), who are devoted to the study of tourism as a multifaceted phenomenon. However, in these studies, legislation was analysed within the framework of general tourism development. In particular, Jakulin (2016) considered the systematic management of the tourist destination and the mechanisms of regulating its effective functioning, while Butler (2015, p. 20) argued for the significant role of comprehensive planning for tourism development, as without it, “tourism development can be carried out sustainably”.

A group of Balkan scholars (Metodijeski et al. 2017) analysed tourism legislation in the Balkan countries of Croatia, Serbia, Macedonia, and Bulgaria. They provided basic data according to the selected criteria: territory characteristics, population, number of international tourists, tourism law, and the existence of a National Tourism Organization. In addition, they considered government bodies responsible for tourism, national tourism development strategies, and tourism-related legislation. Their analysis and review of tourism laws were based on a systematic evaluation of the laws’ content, and they outlined the structures, differences, and similarities of tourism laws in the Balkan countries.

A more detailed analysis of tourism policy is presented in the work conducted by Denda et al. (2019), in which the scholars analysed the legal aspects of tourism development in Serbia. They distinguished the following areas in tourism legislation: laws, spatial planning documents, strategies, master plans, and rule books. Their analysis began with the “umbrella document”, the Law on Tourism, and they defined its main strong and weak features, focusing on its role in promoting Serbia as a destination. They concluded that Serbia should strategically define appropriate tourism policy. To respond to the turbulent market and transform Serbia into a competitive tourist market, the law must be accompanied by other legislative documents specifying necessary tasks.

Other scholars, including Bramwell (2011), Brokaj (2014), and Cooper (2006), thoroughly analysed the issues of state and regional tourism management, as well as the need to consolidate key regulatory functions of the state at the legislative level, the right to carry out tourist activities and provide excursion services, and the need to guarantee the safety of tourist service consumers. Issues of tourism policy in the EU – in particular, the formation of a competitive environment in the market of tourist services and the regulation of tourism destinations – were analysed in the work of Radulescu (2011, p. 67), who noted the significance of regulating as the basis for a sustainable tourism model that could provide “quality, continuity, and balance between tourism and the needs of the environment”.

The issues of tourism legislation have thus been researched by scholars with a holistic approach to tourism. However, scarce articles have focused on directions of improvement exclusively for tourism legislation. Furthermore, there have unfortunately been no works proposing ways to improve tourism legislation in post-war times.

Analysis

As has been established, the goal of this research is to identify what changes should be made to the current Ukrainian tourism legislation to support the development of tourism in post-war times. To this end, the researchers applied their professional knowledge and practical experience in the field of tourism legislation. The researchers also consulted the representatives of multiple tourism-related NGOs: the All-Ukrainian Tourism Association of Ukraine and the League of Tour Guides in Kyiv.

Considering the legal implementation of certain norms of Ukraine's legislation in practical tourism activity, the major problems of the legal regulation of tourism in Ukraine were outlined. Subsequently, the main directions for improving Ukraine's legislation on tourism in the post-war period were formulated.

Issues to be regulated

The Law of Ukraine "On Tourism" as amended in 2003 does not meet the challenges of the internal and external environment and must be radically improved to address urgent issues of the revival of Ukrainian tourism in the post-war period. Significant human, infrastructural, and socio-cultural losses; the total destruction of popular Ukrainian destinations; and tourist and recreational resources require powerful institutional and legal changes in the formation of a new model of national tourism development. The main tool for the success of building such a model will be the systematic improvement of tourism legislation. The proposed changes are a set of effective measures to support tourism entities and the formation of a trajectory of optimisation and reformatting of key business processes. The large-scale involvement of investors is also suggested for the reconstruction of tourism infrastructure in Ukraine and the restoration of cultural heritage objects.

After a thorough analysis of Ukraine's current tourism legislation, the authors outlined 9 main issues that must be addressed.

1. The conceptual and terminological apparatus of the legislation must be aligned with international standards in the field of tourism. Such adjustments should be made to align with the understanding and application of organising international tourism, conducting the statistical accounting of international tourists' arrivals, and calculating the received incomes.

In particular, due to the legislator's lack of a clear position on the definitions of "tourism" and "tourism activity", the legal status of entities engaged in tourism has been insufficiently defined. As a result, there is confusion regarding the adoption of bylaws in this area (Опанасюк et al. 2021).

The analysis of international (Tourism Satellite Account 2010) and European documents (EN 2003) proved that Ukraine's legislation must define new concepts and terms for the modern reality of the tourism business, which includes innovative forms and methods (electronic tourist vouchers), online tour sales, the export and import of tourist services, commercial presence in the country, place of tourist services, place of tourist sales product, online booking systems and/or ordering travel services, timeshares, travel navigation, tourist information centres, and so on. In addition, the tourism legislation must align with international standards and definitions of the following terms: tourist, travel services, visitor, traveller, tour guide, hotel, hostel, day visitor, and social tourist, among others.

- 1) The organisation and activities of new types of tourism (military, extreme, etc.) must be regulated, as well as the certification of innovative excursion programmes related to the coverage of the recent history of hostilities in Ukraine.
- 2) A favourable investment climate must be created for entrepreneurs who will participate in the reconstruction of the tourist and general infrastructure of Ukraine.
- 3) Objects of cultural heritage in Ukraine that require restoration or renovation should be transferred to the subjects of tourism business on the terms of rent.
- 4) Tourism activity leaders, who will carry out the organisation of foreign (inbound) tourism and form innovative tourist products for this category of consumers, should be encouraged.
- 5) An income tax holiday of 10 years should be introduced for hotel enterprises that are built and put into operation in the first four post-war years.

- 6) Security guarantees for travellers must be strengthened, especially during the organisation of specialised types of tourism and in areas where active hostilities took place.
- 7) The responsibility of tour operators and travel agents to provide quality tourist services should be increased.
- 8) Restrictions on the right of tour operators to carry out other types of business activities that are not prohibited by the legislation of Ukraine should be abolished.

These are the most urgent problems that must be settled in the near future, though the list represented in this article is not comprehensive. More improvements could be made; for instance, the tourist tax rate could be increased to 5% for inbound tourism and the received funds could be directed exclusively to the restoration of tourism infrastructure in the region; the renewal of licensing travel agency activities could be improved; and a new permitting procedure for tourist support specialists such as guides, translators and sports instructors could be introduced. These changes, however, may happen in the long term.

2. Proposals

2.1. Proposals on the national level

After determining the main problems that must be solved immediately, the authors systematised the proposals for improving Ukraine's legislation on tourism in the post-war period. The authors distinguished the proposals on the national and institutional levels. The first group of proposals is presented in Table 1.

Table 1. Proposals on the main directions for improving Ukraine's tourism legislation in the post-war period

No.	An issue that must be resolved	The regulatory act of Ukraine that needs improvement	Proposals made by the authors
1.	The conceptual and terminological apparatus in the field of tourism and the need for its harmonization with the European and world standards	Law of Ukraine "On Tourism" (Article 1)	Improve and supplement the terminological, conceptual, and categorical apparatus in the field of tourism in accordance with generally accepted international definitions of the following terms: tourism, tourist, tourist services, visitor, traveller, tourist guide, hotel, hostel, one-day visitor, social tourist, electronic tourist voucher, online tour sale, export and import of tourist services, commercial presence in the country, place of tourist services, point of sale of a tourist product, a system of online booking and/or ordering of tourist services, timeshare, tourist navigation, tourist information centre, etc.
2.	The need for the legal regulation of activities for the organization of new types of tourism (military, extreme, etc.) and the certification of innovative excursion programmes related to the recent history of hostilities in Ukraine	Law of Ukraine "On Tourism"	Provide legislative definitions for the terms and features of the organization of new types of tourism. Introduce certification for innovative excursion programmes.
3.	Creation of a favourable investment climate for entrepreneurs who will participate in the reconstruction of the tourist and general infrastructure of Ukraine	Laws of Ukraine "On Tourism" and "On Investment Activities", Tax Code of Ukraine	Introduce preferential conditions for investors who will invest in the reconstruction of tourist and general infrastructure of the country. Provide for the possibility of creating areas of prioritized tourism development. Cooperate with investors on the terms of a public-private partnership. Exempt investment entities from taxation. Guarantee the return of funds to foreign investors or the participation of the latter in the right to own, use, and dispose of objects and results of investments in Ukraine in accordance with the laws of Ukraine.

Table 2 (cont.)

No.	An issue that must be resolved	The regulatory act of Ukraine that needs improvement	Proposals made by the authors
4.	The possibility of transferring the objects of cultural heritage in need of restoration or renovation to the subjects of tourism business on the terms of rent	Law of Ukraine "On Tourism"	Develop the draft law of Ukraine "On Rent Payments for the Use of Cultural Heritage Sites of Ukraine".
5.	Stimulation of tourism activity subjects who will carry out the organization of foreign (inbound) tourism and will form innovative tourist products for this category of consumers	Law of Ukraine "On Tourism", Tax Code of Ukraine	Partially finance expenses (at the expense of the state budget) for the participation of tour operators in inbound tourism in tourist exhibitions included in the list of annual international exhibitions and fair events abroad. Exempt transactions for the supply of a tourist product (tourist service) from VAT for the benefit of a non-resident by a tour operator, intended for its consumption on the territory of Ukraine (export of tourist services).
6.	Introduction of a 10-year tax holiday for hotel enterprises that are built and put into operation in the first four post-war years	Draft Law of Ukraine "On Amendments to Certain Laws of Ukraine on Reconstruction and Development of Hotel Infrastructure in the Post-War Period", Law of Ukraine "On Tourism", Tax Code of Ukraine	Exempt enterprises providing hotel services of 3-, 4-, and 5-star categories from income taxation for 10 years if such hotels have been reconstructed or rebuilt or have undergone overhaul or restoration work and will be put into operation within four years after the end of martial law in Ukraine.
7.	Strengthening security guarantees for travellers, especially during the organization of specialized types of tourism and in the locations where active hostilities took place	Law of Ukraine "On Tourism"	Introduce norms on the obligatory formation of a safety plan for each type of tour offered by tourism activity subjects in the tourist services market.
8.	Increasing the responsibility of tour operators and travel agents for the quality of tourist services	Law of Ukraine "On Tourism"	Introduce effective instruments of financial guarantees for tour operators' and travel agents' civil liability to tourists, the amount of which will depend on the volume of services provided by the tourism enterprise for the reporting (calendar) year.
9.	The abolition of restrictions on the right of tour operators to carry out other types of business activities that are not prohibited by the legislation of Ukraine.	Law of Ukraine "On Tourism"	Repeal the norm on the exclusivity of tour operator activities that is represented in Article 5 of the Law of Ukraine "On Tourism".

Source: Own elaboration.

2.2. Proposals on the institutional level

The second group of proposals contains the main issues that must be addressed on the institutional level. Among them, the authors highlighted the following:

- 1) Create an enterprise, "Visit Ukraine", which would be financed by the state and investment funds to implement measures promoting tourism in Ukraine.
- 2) Introduce a set of measures to promote Ukraine as a unique tourist family destination in Europe.
- 3) Create a multilingual promotional video for the international tourism market under the brand, "By visiting Ukraine, help rebuild the European family!" Broadcast the video on the world's leading television and radio company, CNN, and post it on social networks popular among foreigners (Facebook, Instagram, TikTok, Snapchat, and Twitter). The efficiency of posting on social networks is substantiated by the analytical company Insider Intelligence (2022), as these social networks were the most popular abroad in 2021.

Thus, the set of measures proposed by the authors aims to create a legal basis for the restoration of national tourism and promote its rapid and successful development, which will positively

affect other socio-economic processes of post-war Ukraine (such as the reconstruction of general and tourist infrastructure, job creation, investment, and addressing social and humanitarian issues). Legal and institutional measures to direct tourist flows to Ukraine and restore and build foreign consumers' trust will help support the processes of sustainable tourism development in Ukraine and the world.

Conclusion

The unpredictable global coverage of Russia's military aggression against Ukraine has hampered all spheres of socio-economic life, caused a serious humanitarian and infrastructural crisis, and blocked travel and leisurely local traffic in Ukraine. Against the background of serious problems caused by the war, there is a significant redistribution of tourist flows around the world and a general reduction in tourism caused by the COVID-19 pandemic. These factors will inevitably affect the socio-economic prospects of Ukraine and increase the risks for most developed countries in terms of tourism, as well as launch serious global economic issues across the world (rising energy prices, food, unemployment, etc.).

Given this context, the authors argue that a task of utmost priority in post-war Ukraine is restoring the socio-economic development of the state and society. This project can be aided by the formation of a tourism renovation model which attracts guests and investors from all over the world. This, in turn, will require the systematic improvement of Ukraine's legislation on tourism, taking into account the post-war humanitarian, socio-economic, institutional, and cultural challenges.

References

- Bobkova, A. et al., 2014, *Pravovoye obespechenye turizma*. Moskva: Federalnoye agentsvo po turizmu.
- Boyd, S. W., 2016, 'Heritage as the USP for tourism in Northern Ireland: Attraction mix, effective storytelling, and selling of dark past'. In: G. Hooper (ed.), *Heritage and Tourism in Britain and Ireland*, Basingstoke, UK: Palgrave Macmillan.
- Bramwell, B., 2011, 'Governance, the state and sustainable tourism: A political economy approach', *Journal of Sustainable Tourism*, 19(4–5), 459–477. DOI: 10.1080/09669582.2011.576765
- Brokaj, R., 2014, 'Local governments' role in the sustainable tourism development of a destination', *European Scientific Journal*, 10(31), 56–69.
- Butler, R., 2015, 'The evolution of tourism and tourism research', *Tourism Recreation Research*, 40, 16–27. DOI: 10.1080/02508281.2015.1007632
- Causevic, S., 2010, 'Tourism which erases borders: An introspection into Bosnia and Herzegovina'. In: O. Moufakkir, I. Kelly (eds.), *Tourism, Progress, and Peace* (pp. 48–64), CABI.
- Cooper, M., and Flehr, M., 2006, 'Government intervention in tourism development: Case studies from Japan and South Australia', *Current Issues in Tourism*, 9(1), 69–85. DOI: 10.1080/13683500608668239
- Denda, S. et al., 2019, 'Legal aspects of tourism development in Serbia', in: *Innovative Aspects of the Development Service and Tourism: Book of Proceedings of VII International Scientific-Practical Conference* (pp. 31–37). Available at: <https://dais.sanu.ac.rs/handle/123456789/6338> (accessed: 01.11.2022).
- EN 13809, 2003, 'Tourist services – Tour operators and travel agencies', *Terminology, IDT*. Available at: <https://cutt.ly/yHfiGnr> (accessed: 10.05.2022).
- Initiyatyvna grupa z reformuvannya turystychnoi galuzi, 2021, *Dorochnaya karta turystychnoi reformy: Reanimatsiyinyi paket reform*. Available at: <https://cutt.ly/LNMeefc> (accessed: 06.11.2022).
- Insider Intelligence, 2021, 'TikTok is the third-largest worldwide social network behind Instagram and Facebook', *Newsroom*. Available at: <https://cutt.ly/MHfpkYd> (accessed: 07.05.2022).
- Jakulin, T. J., 2016, 'Systems approach for contemporary complex tourism systems', *International Journal for Quality Research*, 10(3), 511–522.
- Light, D., 2017, 'Progress in dark tourism and thanatourism research: An uneasy relationship with heritage tourism', *Tourism Management*, 61, 275–301.
- Mansfeld, Y., 1999, 'Cycles of war, terror, and peace: Determinants and management of crisis and recovery of the Israeli tourism industry', *Journal of Travel Research*, 38(1), 30–36.
- Metodijeski, D. et al., 2017, 'Tourism legislation and policy: Review of tourism law in selected Balkan countries', in: Z. Radic, A. Roncevic, L. Yongqiang (eds.), *Economic and Social Development*. 22nd

- International Scientific Conference on Economic and Social Development 'The Legal Challenges of Modern World'. Book of Proceedings*, Varazdin Development and Entrepreneurship Agency.
- Miles, W. F. S., 2002, 'Auschwitz: Museum interpretation and darker tourism', *Annals of Tourism Research*, 29(4), 1175–1178.
- Opasyuk, N. et al., 2021, 'Pravove reguluvannya turystychnoi diyalnosti v konteksti reformuvaniya zakonodastva Ukraini pro turizm', *ScienceRise: Yuridichna nauka*, 3(17), 9–17. DOI: 10.15587/2523-4153.2021.238875
- Pro turizm, 1995, Zakon Ukraini 324/95-BP. 15.09.1995. Available at: <http://zakon1.rada.gov.ua/laws/show/> (accessed: 01.05.2022).
- Radulescu, C. V., 2011, "Tourism and environment – Towards a European tourism policy", *Journal of Knowledge Management, Economics and Information Technology*, 1(5), 1–13.
- Rivera, L. A., 2008, 'Managing 'spoiled' national identity: War, tourism, and memory in Croatia', *American Sociological Review*, 73(4), 613–634.
- Simone-Charteris, M. T., and Boyd, S. W., 2011, 'The potential for Northern Ireland to promote politico-religious tourism: An industry perspective', *Journal of Hospitality Marketing and Management*, 20(3-4), 457–483.
- Suntikul, W., 2013, 'Thai tourism and the legacy of the Vietnam War'. In: R. W. Butler, W. Suntikul (eds.), *Tourism and War*, London: Routledge.
- World Tourism Organization, 2010, *Tourism Satellite Account: Recommended Methodological Framework 2008*, Studies in Methods, 80(1), Luxembourg, Madrid, New York, Paris: UN. Available at: <http://unstats.un.org> (accessed: 13.05.2022).

Information Technologies in the Strategy for Tourist Destination Development in the Western Ukrainian Border Regions

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Abstract

The article examines the peculiarities of the formation and development of tourist destinations in the western Ukrainian border regions. GMDH analysis of statistical indicators of tourism in Lviv, Ivano-Frankivsk, Zakarpattia, Volyn and Chernivtsi regions revealed the importance of information campaigns promoting local destinations. The strategy for tourist destination formation, information support and promotion in the western Ukrainian border regions is developed and the components of its realisation are described.

Keywords

tourism, destinations, development strategy, information technologies

Introduction

Tourism, a sphere of economic activity that uses natural and recreational resources, is widely developed in the modern world. Tourist activity is based on the integrated use of the potential of the territory and the output of different industries to create an attractive product based on a combination of goods, services and impressions. The tourism market is not only one of the most globalised markets but also contributes to the globalisation of other markets and economic activities.

A wide range of tourism products, which are based on different features of the area where they are produced and sold, can be targeted at a specific audience. Some types of tourism require expensive and highly organised tourist infrastructure as well as high-quality services, while others can develop in the almost complete absence of such amenities. Nevertheless, in both cases, tourism is seen as a sphere of economic activity that can stimulate the economic development of the territory and create the necessary conditions for its growth.

Ukraine, actively using natural and recreational resources, rose 10 positions in the Competitiveness Index in travel and tourism over the past two years to take 78th place out 140 countries, according to the World Economic Forum (*The Travel & Tourism...* 2019). Valery Rudenko and a group of scientists note that “after land and water resources, natural and recreational potential is the main resource in 16 physical and geographical regions of Ukraine (almost 6% of the total area). The Crimean mountains and the Transcarpathian region occupy leading positions here” (Rudenko 2014, p. 75).

At the same time, Ukraine, despite its unique tourist potential, owes a relatively small share of its national economy to tourism. In 2017, the value added by tourism amounted to \$1.3 billion, the lowest in Europe except for Albania and Luxembourg (Danylyshyn).

Considering a tourist destination as a product, the formation of tourist destinations in regions with unique tourist resources refers to strategic economic entities that will promote the proportional development of territorial and sectoral economies, ensure the growth of revenue, create new jobs and improve the living standards and health of the local population. As noted by Vladimir Quint, strategists must be able to anticipate patterns and trends that have not yet manifested and be able to adequately plan their impact (Kvint 2015, p. 6).

The use of a strategic approach to the formation and development of tourist destinations involves the selection of factors that determine the attractiveness of a tourist product or service in a particular area. Tourist and recreational potential are aspects of sustainable economic development in the medium and long term. The objects of strategic planning for the development of a tourist destination are the introduction of innovative organisational and technological solutions to attract and serve tourists, mechanisms to ensure and improve the quality of tourist services, intensification of the use of information and communication systems, and more.

Information technologies in the strategic development of tourism

Modern tourism information systems consist of several types of support subsystems, which include software, technical, legal, organisational, logistical and information support.

For example, personal computers with office software allow tourist enterprises to effectively solve many problems in the following areas: development of the necessary documentation, ensuring proper document flow, preparation of contracts and agreements, accounting for business results, analysis of business results, marketing research, maintaining databases for customers, sales, personnel, and so on.

At the same time, the key role of information technology is to attract tourists to the destination, from acquaintance with the destination and choice of itinerary to the formation of impressions of the destination. That is why the effective use of the internet for the promotion of the territory or region is an important element of the establishment and strategic development of a tourist destination. This may entail the creation of an internet portal, promotion on social media such as Facebook, Twitter, YouTube, etc., banner and contextual tourist advertising, and destination promotion on specialised tourist portals, sites, forums and blogs.

It is also necessary to consider the importance of electronic catalogues, virtual tours, online booking, transport accessibility and infrastructure, development of destination facilities, availability and quality of labour resources, environmental constraints and more. According to Turkish researcher Nermin Kisi, a strategic approach to destination formation and sustainable tourism development requires diversification of tourism products and event management, destination image creation, regular visitors, a management system, promotion and branding strategies, partnerships and cooperation (Kisi 2019). He offers the following block diagram of strategy development (Kisi 2019, p. 7):

Key factors → decision hierarchy → prioritisation → development strategy

The development of a strategic concept of destination development based on selective types of tourism is also proposed by Montenegrin researcher Aleksa Vučetić, who used statistical methods to establish that certain types of tourism imply a different range of destination product management, based on which the vision, mission, strategic development goals can be determined, along with strategies for the development of a particular tourism product, depending on the phase of the life cycle of the destination (Vučetić 2010, p. 5).

One step in the development of a strategy for the formation and development of tourist destinations is strategic analysis of the environment, which involves the study of the external environment, immediate surroundings and internal environment of the destination.

The external environment includes the legal regulation of tourism development, macroeconomic influences, political processes, scientific, technical and technological development, and so on.

The immediate environment is composed of suppliers, consumers, competitors, the labour market, general infrastructure, and the like.

Analysis of the internal environment reveals the tourist potential of the destination. This depends on the availability of natural recreational resources, historical monuments, culture, architecture, the development of special infrastructure (hotels, restaurants, entertainment venues, etc.), travel agencies, qualified personnel and similar factors.

It is important that travel services, such as tickets to the destination, public transport, car rental, booking of hotels, restaurants and other services, as well as reliable information on accommodation programs and other related services are now easily available through the internet portals of tourist destinations.

Researchers Mariana Grytsiuk, Pavlo Grytsiuk and Yurij Gryciuk have proposed a strategy for sustainable tourism development in the Carpathian region, which includes almost all western Ukrainian border regions. The purpose of the strategy is to transform the territory of the Carpathians, with its rich natural resources as well as its historical and cultural heritage, into a safe area with a clean natural environment that is attractive to residents and entrepreneurs (Grytsiuk et al. 2017). However, the proposed strategy applies only to the mountainous part of the region and does not correlate with other regional socio-economic development strategies. The development of a strategy for the formation and development of each destination must take into account all the elements of the internal environment described above.

There are different approaches to the choice of strategies for the formation and development of a tourist destination, including the expansion of established places and territories, comprehensive coverage and centralisation.

For the western Ukrainian regions, which boast a significant concentration of natural recreational resources as well as historical, cultural, and architectural monuments, the most effective strategy is based on comprehensive coverage. This approach involves dividing the entire territory of each region into several destinations that unite the most attractive places for tourists.



Figure 1. Western Ukrainian territories bordering Poland, Slovakia, Hungary and Romania

Source: own elaboration.

The study of the formation and functioning of tourist destinations in the border regions of Poland, Slovakia, Hungary and Romania and comparison with the initial conditions of the western Ukrainian border regions (Fig. 1) shows the need to develop a strategy.

This strategy should be aimed at the determination of priorities that take into account the possible directions of destination formation, including the assessment of prospective destinations and potential limitations to their development.

Factors of tourism development in the western Ukrainian border regions

Research into the development of regional tourism is supported by many modern methods of statistical analysis: Naïve, MA, single-exponential smoothing, ARIMA, multiple regressions, neural networks, and so on (Burger et al. 2001). However, tourism development is a complex and non-linear phenomenon. Therefore, the choice of an adequate modelling method affects the accuracy of its factor analysis. In recent years, the Group Method of Data Handling (GMDH) has proven to accurately describe tourism processes (Shabri 2015).

Developed in 1974 by Madala and Ivakhnenko (1974), GMDH is a method of multidimensional analysis for the modelling and identification of complex systems. The general relationship between input and output variables in it is described by the complex polynomial series Volterra, known as the Kolmogorov-Gabor series:

$$y = a_0 + \sum_{i=1}^n a_i x_i + \sum_{i=1}^n \sum_{j=1}^n a_{ij} x_i x_j + \sum_{i=1}^n \sum_{j=1}^n \sum_{k=1}^n a_{ijk} x_i x_j x_k + \dots \quad (1)$$

GMDH analysis most often uses a polynomial in the form:

$$\hat{y} = a_0 + a_1 x_i + a_2 x_j + a_3 x_i x_j + a_4 x_i^2 + a_5 x_j^2 \quad (2)$$

The main parameters of tourism development in the western Ukrainian regions were formalised from the official 2019 data of the State Statistics Service of Ukraine (Sait Derzhavnoho...). Data on regional tourist destination websites have been obtained from the open data of the Google Search service. The parameterisation included the following indicators of Lviv, Ivano-Frankivsk, Zakarpattia, Volyn and Chernivtsi regions:

- number of web pages about tourist destinations in the region;
- number of legal entities involved with tourist activity;
- land areas suitable for tourism
- capital investments;
- number of club establishments;
- forest lands (hectares);
- area of reserves and national nature parks;
- the length of the road network.

The dynamics of the income of individual entrepreneurs from the provision of tourist services in these areas were chosen as the initial target parameter.

GMDH Shell DS software was used to build the GMDH model. For acceptable forecast accuracy, the following modes of application of the GMDH were chosen: observations were mixed in even/odd mode; method of verification – cross; number of parts – 4; criterion – mean square of the deviations; ranking of variables – by correlation; restrictions on the best variables – 20; the main algorithm is combinatorial (fast). Following GMDH analysis, the model rejected insignificant input factors and found, with a coefficient of determination of 0.9, the functional dependence of the output and input parameters:

$$Y = 9,507.1 + 0.00002 * (0.0007 * x_1 * x_2 - 7,519.44) * (194.98 + 0.0079 * x_2 * (x_1 * 0.087 - 7,903.82))$$

where Y represents the income of individual entrepreneurs from the provision of tourist services, x_1 is the number of web pages with information about tourist destinations in the region, and x_2 is the area of reserves and national nature parks.

In the case of the western Ukrainian border regions, GMDH modelling revealed a strong positive dependence of tourism income development on the representation of tourist destinations on the internet and areas of protected recreational potential. The remaining indicators did not show importance as effective growth points for tourism. Thus, the identified factors of the use of information technology were the basis of the strategy for the formation, information support and promotion of tourist destinations of the western Ukrainian border regions shown in Figure 2.

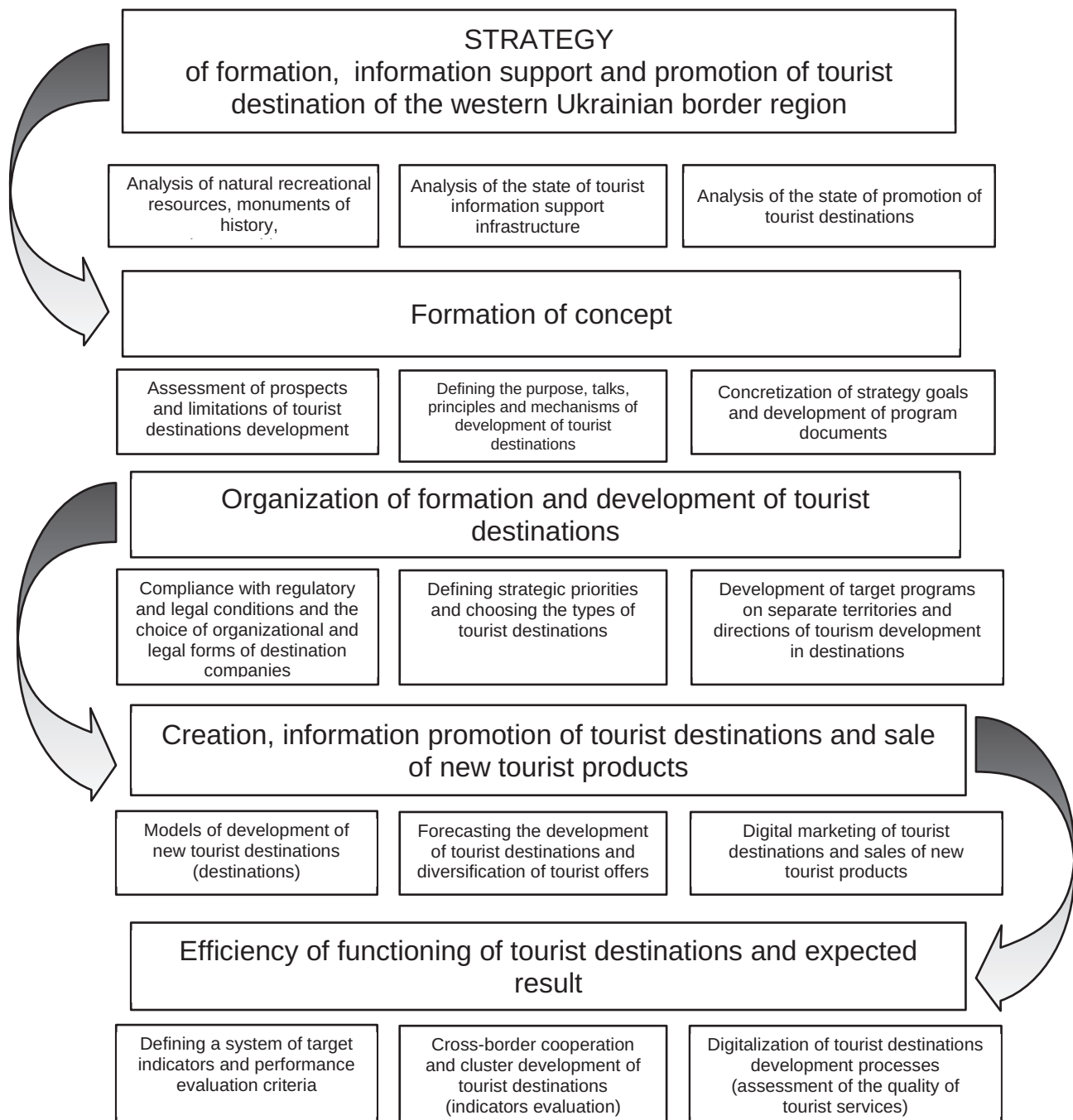


Figure 2. Strategy for the formation, information support and promotion of tourist destinations in the western Ukrainian border regions

Source: own elaboration.

Conclusions

Analysis of the territories of the western Ukrainian border regions confirms their significant tourist potential and the availability of opportunities for the development of related economic activities. At the same time, the competitive touristic advantages of these regions are considered not only in the Ukrainian national context. The border situation, the growth of the contact function of the border, the development of international transport corridors, and the strengthening of interest in the border regions afford serious prospects for the development of regional tourism in western Ukraine.

Given the availability of visa-free entry into Ukraine and exit to EU countries and the influx of tourists from the border areas of European countries, who have a common historical and cultural heritage, traditions and even family ties in western Ukraine, the strategic task is to create tourist destinations of various types, which will provide significant economic growth and reduce differences in economic development in border regions, in particular, differences in income, well-being, infrastructural provision, access to social benefits, etc.

Individual entrepreneurs play an important role in ensuring regional tourism. Due to their size and a low financial threshold for entering the market, they are agile and adapt readily to the changing tourist demand. The ability to manoeuvre quickly in terms of basic service provision makes them an attractive subject for local tourist development. In this aspect, the results of GMDH analysis of tourism statistics from the western Ukrainian border regions showed that an individual entrepreneur's revenue from the provision of tourist services (Y) depends significantly on the number of web pages with information on tourist destinations (x_1) and area of reserves and national nature parks (x_2). The identified positive dependence provides an objective basis for the identification of strategic growth points for tourism in the studied regions, which were taken into account in the proposed strategy for the formation, information support and promotion of tourist destinations in the western Ukrainian border regions (Fig. 1). The strategy aims to promote the main aspects of tourism development and highlight their impact on the regional economy, thus providing broad social support to the population and businesses that may be sceptical and wary of establishing a tourist destination in their home region.

The strategy is implemented in the following stages: the formulation of the concept; the planning and establishment of tourist destinations; development and promotion of tourist destinations and sale of new tourist products; efficiency measures and assessment.

Strategies for the formation, information support and promotion of tourist destinations apply to all geographically neighbouring and interconnected companies operating in the field of tourism. They are characterised by the commonality and complementarity of their activities. This is because any tourist area is multifunctional: it creates many territorial products, each of which may have its own development strategy. The tourist product of the destination is the only commodity utility. It is created from existing tourist assets and resources of the territory and therefore is an independent territorial product – a destination that must have a strategy. The strategic orientation of innovative tourist destination development should be towards creating a competitive tourist product, attracting investment in the development and new construction of tourist facilities, the introduction of modern and advanced technologies into tourist services, and widespread promotion on the internet.

References

- The Travel & Tourism Competitiveness Report 2019: Travel and Tourism at a Tipping Point*, World Economic Forum. Available at: http://www3.weforum.org/docs/WEF_TTCR_2019.pdf (accessed: 15.02.2023).
- Rudenko, V. P. et al., 2014, 'Dominant and subdominant types of nature resources in Ukraine: A regional analysis', *Natural Resources*, 5, 73–77. Available at: https://www.scirp.org/pdf/NR_2014022716444377.pdf (accessed: 15.01.2023).
- Danylyshyn, B., 'Rozvytok turizmu v Ukraini: velykyy potentsial ta nevykorystani mozhlyvosti' [Tourism development in Ukraine: great potential and untapped opportunities]. Available at: <https://ua.2.ua/mnenie/rozvytok-turizmu-v-ukraini-velykyi-potentsial-ta-nevykorystani-mozhlyvosti-509064.html> (accessed: 15.01.2023).

- Kvint, V. L., 2015, 'Razrabotka strategii: monitoring i prognozirovanie vnutrennei i vneshnei sredy' [Development of strategy: scanning and forecasting of external and internal environments], *Upravlencheskoe konsul'tirovanie* [Administrative Consulting], 7(79), 6–11.
- Kisi, N., 2019, 'A strategic approach to sustainable tourism development using the A'WOT hybrid method: A case study of Zonguldak, Turkey', *Sustainability* 11, 964.
- Vučetić, A., 2010, 'Strategic approach to development of selective tourism destination', *Selective Tourism*, 5, 5–16. Available at: https://www.researchgate.net/publication/324042724_Strategic_Approach_to_Development_of_Selective_Tourism_Destination
- Grytsiuk, M., Grytsiuk, P. and Hrytsiuk, Y., 2017, 'Building a sustainable tourism development strategy in the Carpathian region of Ukraine', *Scientific Papers of Silesian University of Technology. Organization and Management Series*, 35–50.
- Burger, C. J. S. C. et al., 2001, 'A practitioner's guide to time-series methods for tourism demand forecasting – a case study of Durban, South Africa', *Tourism Management* 22(4), 403–409.
- Shabri, A., 2015, 'A novel hybrid ensemble learning paradigm for tourism forecasting', *AIP Conference Proceedings*, 1643(1), 192–200.
- Madala, H. R., and Ivakhnenko, A. G., 1974, *Inductive Learning Algorithms for Complex System Modeling*, Boca Raton: CRC.
- Sait Derzhavnoho komitetu statystyky Ukrainy (n.d) [Site of the State Statistics Committee of Ukraine] [in Ukrainian]: ukrstat.gov.ua (accessed: 15.02.2023).

The Impact of War on the Reorientation of Trade Flows: The Case of Ukraine

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Abstract

The military aggression of the Russian Federation against Ukraine, which started in 2014 and came to another active phase in February 2022, may change Ukraine's foreign trade in terms of both its geography and product structure. The regions of Ukraine will not only have to recover from the consequences of destruction, but also to seek new directions of foreign economic activity and build connections with reliable partners such as the European Union and the United States. The paper presents an analysis of changes in the foreign trade of Ukraine and its regions since 2014 and examines shifts in trade flows in the direction of Western leaders of global trade. The case of Georgia, another target of Russian military intervention, in the reorientation of its trade flows, is also considered.

Keywords

Ukraine, regions, trade in goods, trade in services, export, import

Introduction

Military-political conflicts, regardless of their geographical scale, depth of aggravation, and duration, cause imbalances in established socio-economic processes among the involved parties. Political and military conflicts make normal economic processes of interaction between the warring parties impossible. As the history of the 20th century shows, wars result in the rupture of existing international economic ties and the establishment of new areas of cooperation – with new partners and in new promising industries, as well as in reorientation to new markets. The war between Russia and Ukraine will be no exception.

The choice of strategic trading partners for a national economy is often determined by the reciprocity of trade, economic interests, and the historical basis of cooperation. For this reason, a significant number of the former Soviet republics developed and deepened trade and economic ties with Russia after 1991, in de facto recognition of its status as regional leader. Other post-Soviet states, such as the Baltic countries, have chosen a clear focus on Western partners and a path of European integration. Finally, a third group of countries, such as Ukraine, Moldova, and Georgia, have been balancing between maintaining traditional trade relations with Russia and developing new Western areas of cooperation. These states now are facing the challenge of decreasing their economic dependence on Russia. Ukraine, as the victim of the latest and the cruellest unprovoked aggression, is now on the path of revising existing trade relations with Russia and deepening existing trade contacts with the leading Western economies and allies, such as the European Union and the United States.

The internal administrative units of the countries play an important role in building new or deepening existing trade and economic relations. In the case of the current war, the foreign economic relations of the administrative units close to the lines of conflict will be radically reorganised. Regions further from the front lines, such as the western regions of Ukraine, will gain new potential to deepen already existing ties with Western democratic countries. In this regard, this paper has a twofold objective:

- to study the current state of Ukraine's foreign trade with the EU and the US and reorientation of trade flows since the start of the conflict with Russia;
- to analyse changes in Ukraine's regional trade with the EU and US between 2014 and 2021 and to identify specific features of trade inherent to the administrative units of Ukraine, depending on their location and economic characteristics.

The case of Ukraine with respect to the reorientation of trade flows will be studied in light of the experience of Georgia, another post-soviet state with tight economic ties to Russia that has chosen a pro-European way of economic development and has suffered from a Russian invasion.

Literature review

A significant number of works by domestic scientists study the realisation of Ukraine's export potential through the transformation of foreign trade policy in the context of rapprochement with the EU and a shift away from close cooperation with the Commonwealth of Independent States countries. According to Diatlova and Polozhentseva (2020), the strategic reorientations of the global course of Ukraine's economic development have challenged the long-established partnerships between regional industrial enterprises and their foreign economic partners. Therefore, the implementation of the new course requires significant effort, especially at the regional level, where the actual trade cooperation takes place.

Some researchers (Rakhman, Yevtushenko and Rudas 2020) focus primarily on the significant potential of Ukraine's economic relations with the EU and the inevitable growth of mutual trade given improvement in the legal framework. Others pay special attention to trade between Ukrainian and European foreign businesses in certain kinds of goods (Artamonova 2019). At the same time, very few researchers are trying to find other priority export areas beyond the EU in case of a final severance of current trade relations with Russia.

To date, the academic interest in trade cooperation between Ukraine and the United States has been rather limited, which can be explained by the geographical remoteness of the two countries and weak American interest in trade with Ukraine stemming from Russia's policy of "patronage". Only a few studies are dedicated to regional specifics of Ukraine's trade with the United States (Lazhik and Melnyk 2012), while others consider the influence of mutual trade on Ukraine's development only at the macro level (Vasylytsya 2017).

Examining the involvement of Ukrainian regions in foreign trade, the authors identify problems such as excessive regional differentiation of foreign economic activity in Ukraine, an export structure dominated by raw materials, and excessive dependence on foreign trade in many regions, which makes their economies vulnerable to foreign markets (Sokolovska 2020). These features are generally common to all regions of Ukraine.

Other studies of foreign economic relations focus on border regions. These regions, being on the periphery, away from the central markets of the country and, in turn, close to those of neighbouring countries, have additional advantages and opportunities for foreign trade operations and other types of foreign economic activity (Zelinska 2020).

Previous Ukrainian research into the deepening cooperation with the EU has focused on the positive role of the Western border regions of Ukraine in the implementation of the foreign economic course of the state. Now, with a rupture of trade relations between Ukraine and Russia becoming inevitable, a question arises about the possibilities of trade reorientation for other border areas (Eastern, Central, and Northern regions) that are remote from the frontier with the EU. Because of recent hostilities, these regions are at greater risk of destruction, and supply chain disruption may discourage or prevent the use of established trade routes.

Methods and data

The study employs general methods of analysis (a study of conditions and indicators of Ukraine's trade with major partners), including retrospective analysis, synthesis (consideration of Ukraine's trade as a set of foreign trade operations in its regions), and generalisation for conclusions. Specific methods of statistical evaluation and graphical display of results (construction of time series and diagrams of exports and imports, calculation of the share of regions in trade in goods and services and displaying them in tables, determining the relative deviations of trade indicators by the basic method) were used. Data provided by the State Statistical Service of Ukraine (SSSU) and the National Statistics Office of Georgia (NSOG) serve as a basis for statistical analysis and comparison.

Results

Overview of general changes in Ukraine's trade with the European Union and the United States in 2014–2021

Foreign trade has a great influence on the economic independence of the country. Relying on imports from a certain trade partner as well as concentration of export flows poses a threat to national security, namely when the partner is aggressive and unpredictable.

Ukraine has made significant progress in economically distancing itself from Russia and reorienting its trade flows to other countries. The share of Russia in Ukraine's turnover of goods and services decreased from 27.7 percent in 2013 to 7.2 percent in 2021. The analysis of export flows shows that the majority of Ukrainian exports now go to the EU. Thus in 2021, the volume of commodity exports from Ukraine to the EU amounted to 26.8 billion USD, which was 39.4 percent of total exports of goods. Commodity imports from the EU amounted to 28.95 billion USD (39.8 percent of total imports). Exports of services to the EU were at 4.49 billion USD (34.2 percent of exports of services from Ukraine), with imports amounting to 3.23 billion USD (42.6 percent of the total).

A breakdown by nation shows that goods from Ukraine mainly go to China (11.8 percent), Poland (7.7 percent), Turkey (6.1 percent), Italy (5.1 percent), and the Russian Federation (5 percent) – see Figure 1. Russia's share was 23.7 percent in 2013.

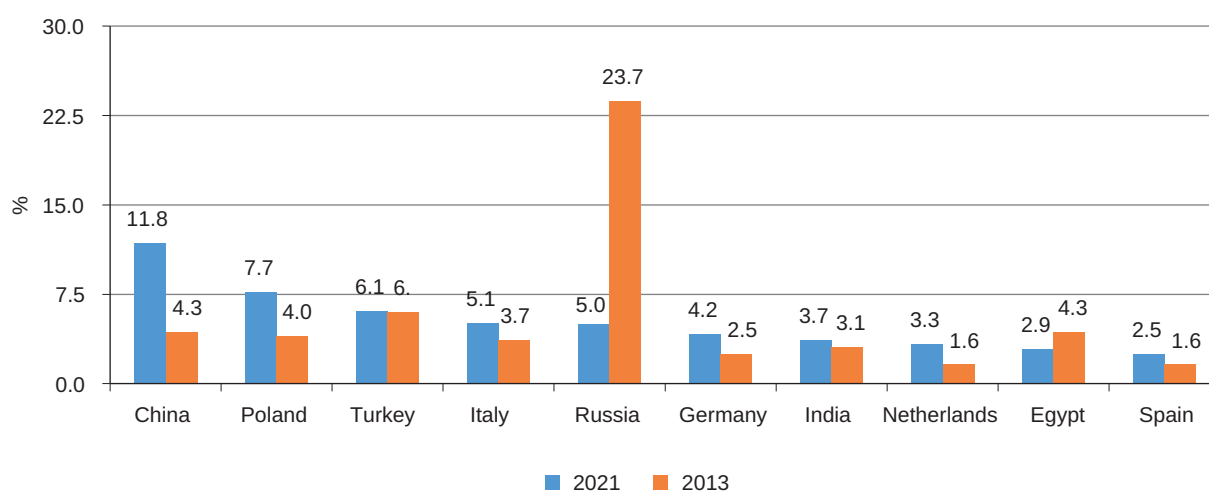


Figure 1. Main commodity export destinations from Ukraine in 2021 compared to 2013, percent of total exports

Source: SSSU 2022a, data processed and visualised by the authors.

Services exports mostly go to the Russian Federation, the USA, Switzerland, the United Kingdom, and Germany (Figure 2). Again, Russia's share has decreased dramatically since 2013.

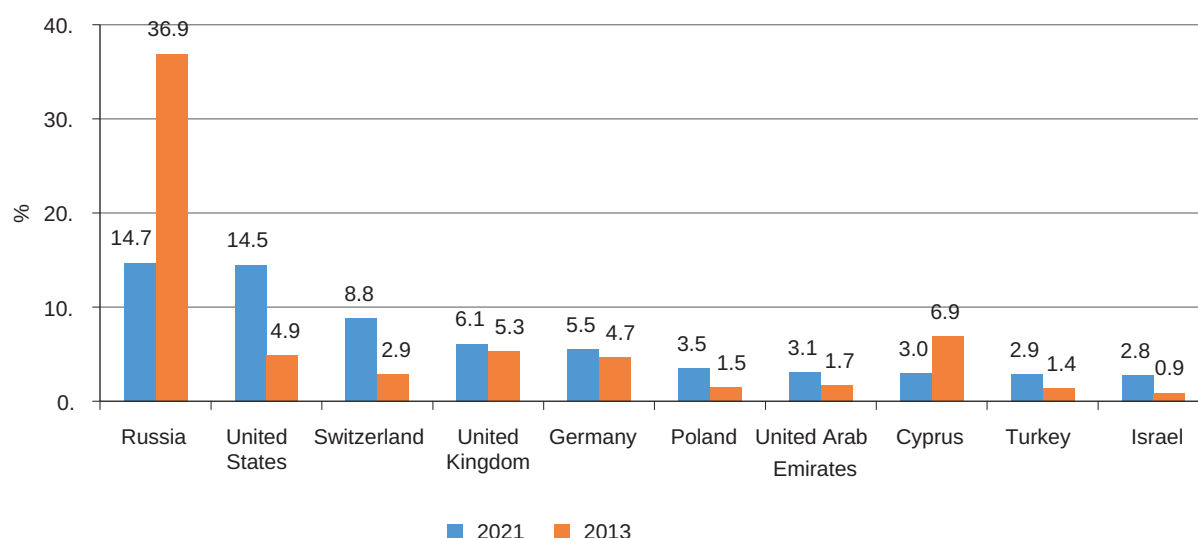


Figure 2. Main services export destinations from Ukraine in 2021 compared to 2013, percent of total exports

Source: SSSU 2022b, data processed and visualised by the authors.

The greatest share of imported goods in 2021 originated from China, Germany, Russia, Poland, and Belarus (Figure 3) while services were imported from Turkey, the United States, the United Kingdom, and Ireland (Figure 4).

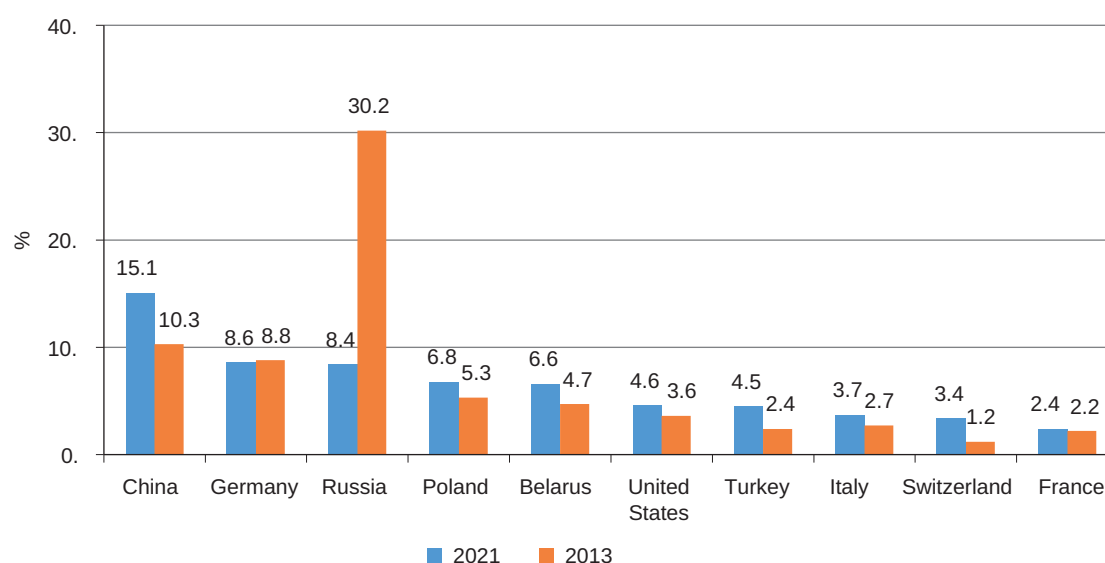


Figure 3. Commodity imports to Ukraine by main partners in 2021 compared to 2013, percent of total imports

Source: SSSU 2022a, data processed and visualised by the authors.

It is noticeable that trade in goods with the United States is much smaller in volume than trade with the EU, while the United States is Ukraine's second-largest trade partner in services. China remains the main buyer of Ukrainian products, and over the past 5 years, supplies to China have been growing by an average 17 percent annually (mainly due to agro-food products). Given the specifics of Ukrainian exports to China (about 55 percent of which is grain) and its supply routes, which have been interrupted by hostilities, forecasting the dynamics of exports in the near future is no easy task; nevertheless, we can assume that China's will retain its leading role as an export destination from Ukraine.

Russia, on the other hand, has seen a complete severing of trade connections with Ukraine, with a total ban on Russian imports made official in April 2022 and export restrictions approved by

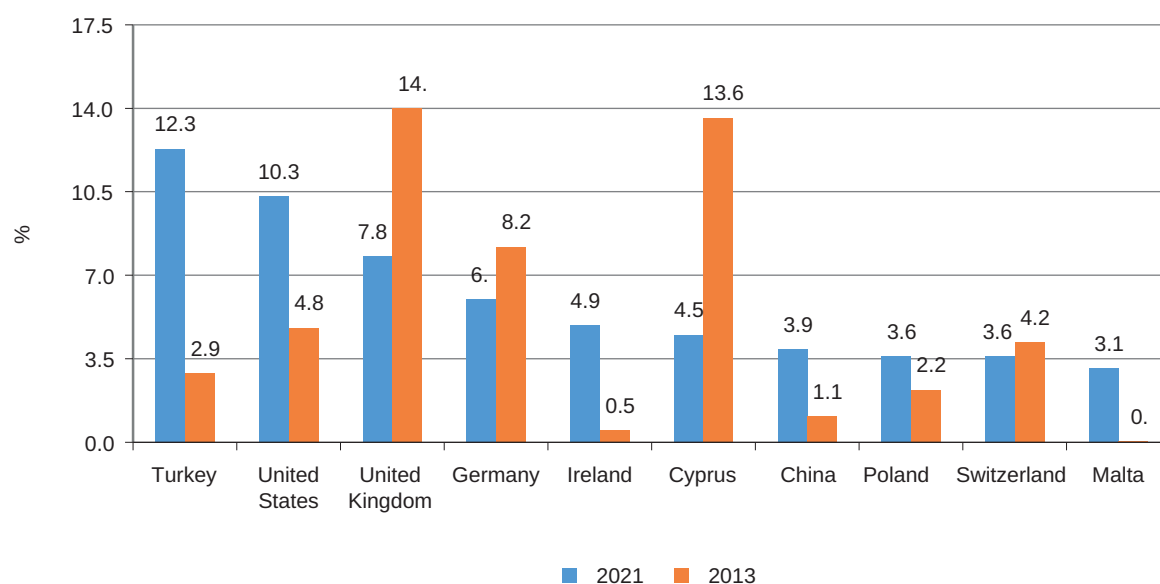


Figure 4. Services imports to Ukraine by main partners in 2021 compared to 2013, percent of total imports

Source: SSSU 2022b, data processed and visualised by the authors.

the Government five months later. This will not only lead to a 6 billion USD annual currency loss for Russia, but will also force Ukrainian companies to reorient to other foreign markets. This will primarily apply to companies selling ferrous metals and products of inorganic chemistry in Russia. As for imports from Russia, 70 percent of which were energy sources, the results of the ban are also obvious – Ukraine has the clear task of gaining complete independence from Russian oil and gas. In our opinion, curtailing trade with Russia will open a new window for increasing trade with other partners. Still, there is a paradoxical situation in trade in services between Russia and Ukraine. Though the refusal to provide Russia with transit services from the Ukrainian seems to be clear and legally grounded, the fuels are still transferred to Europe through Ukrainian territory. Ukraine's commitments and status as a reliable transit country do not yet allow curtailing this activity.

However, Ukraine's export opportunities in the West are the subject of our study, so it is worth turning attention to how Ukrainian trade flows to and from the EU and the United States have been changing since 2014.

Trade flows have undergone a considerable shift since the Russian intervention in Crimea, Donetsk, and Lugansk in 2014. The Russian Federation had previously been Ukraine's main trading partner. However, over the past 8 years, the European Union's share of Ukraine's foreign trade has increased from 32 percent to almost 40 percent, making the EU Ukraine's leading trading partner. Compared to 2013, the import of goods from the EU to Ukraine has increased by 1.9 billion USD in 2021 (7 percent). Exports have grown remarkably, having increased by 10.04 billion USD, or 60 percent. Given such high dynamics of export compared with the rather moderate growth in imports, the negative balance in trade in goods decreased by 79 percent (Fig. 5).

The most dynamic deepening of trade relations between Ukraine and the EU took place after the signing of the Agreement on the Deep and Comprehensive Free Trade Area (economic part of which came in action in 2017), which provided for the reduction of most customs restrictions on a significant proportion of Ukrainian goods. As a result, the import of goods from Ukraine to the EU increased by 5.73 billion USD (+ 25 percent), with exports increasing by 6.64 billion USD (+ 33 percent) from 2018 to 2021.

Before 2014, the balance of trade in services with the EU was negative and amounted to 16.3 million USD. Over the past 8 years, the balance of trade has become positive and increased by 1.28 billion USD. In particular, the export of services from Ukraine to the EU increased by 514 million USD between 2018 and 2021, while imports, on the contrary, dropped by 124 million USD. Compared to 2013, the export of services from Ukraine to the EU increased by 107 percent, while imports fell by 77 percent (Fig. 6).

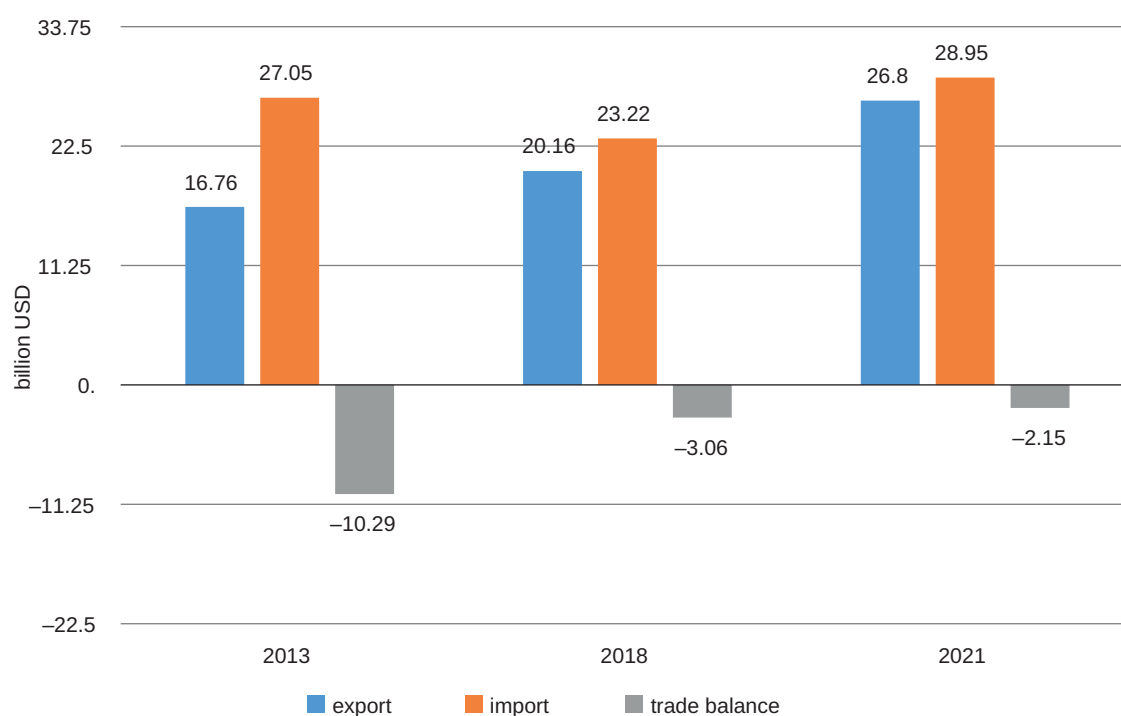


Figure 5. Ukraine-EU commodity trade indicators, 2013–2021, billion USD*

* Excluding Crimea and the occupied territories of Donetsk and Lugansk regions

Source: SSSU 2022a, data processed and visualised by the authors.

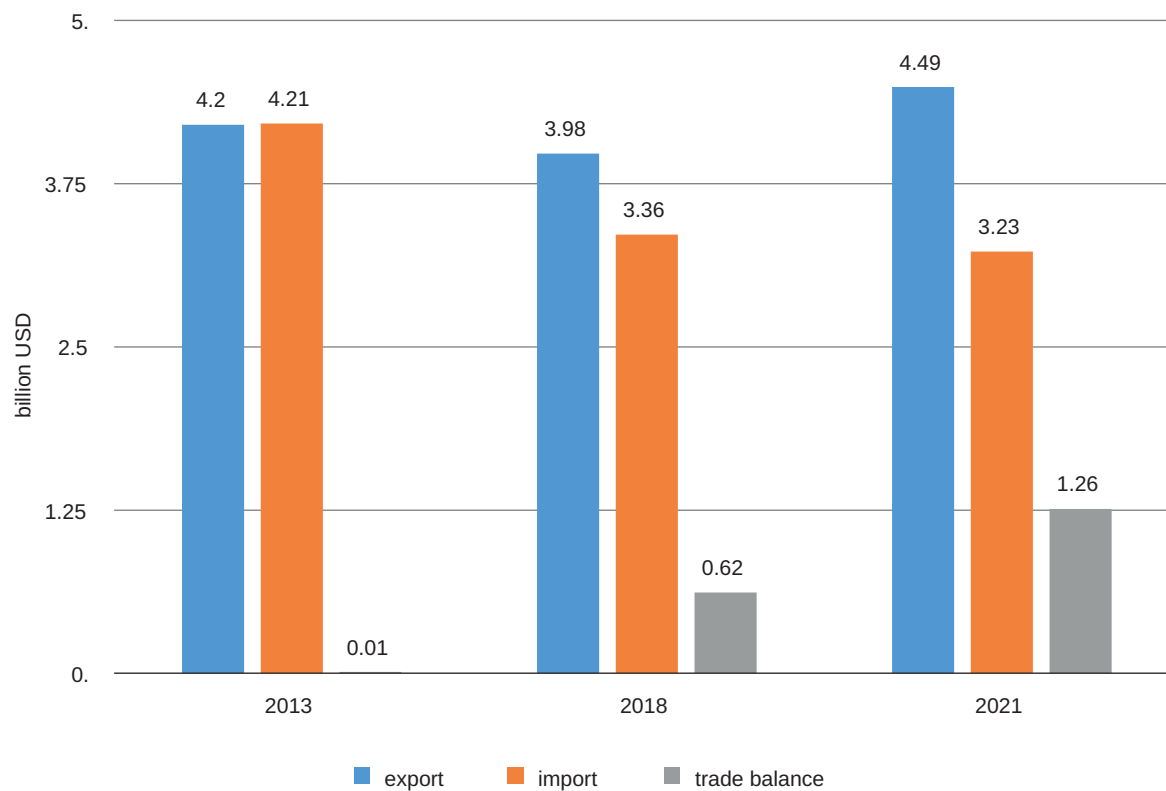


Figure 6. Ukraine-EU trade in services indicators, 2013–2021, billion USD*

* Excluding Crimea and the occupied territories of Donetsk and Lugansk regions

Source: authors' processing using the data (SSSU 2022b, data processed and visualised by the authors).

A similar trend of growing volume and exports exceeding imports is seen in trade relations with the United States. Imports from the United States increased by 21 percent in 2021 from the pre-war level of 2013. Exports from Ukraine increased by 722 million USD, or 81 percent. Both indicators also show higher dynamics of growth than in trade with the EU, though there were no such significant changes in bilateral trade policy and cooperation between Ukraine and the United States as was the case with the EU. The negative balance of commodity trade amounted to 1.72 billion USD in 2021 (Fig. 7), which is eight percent less than in 2013.

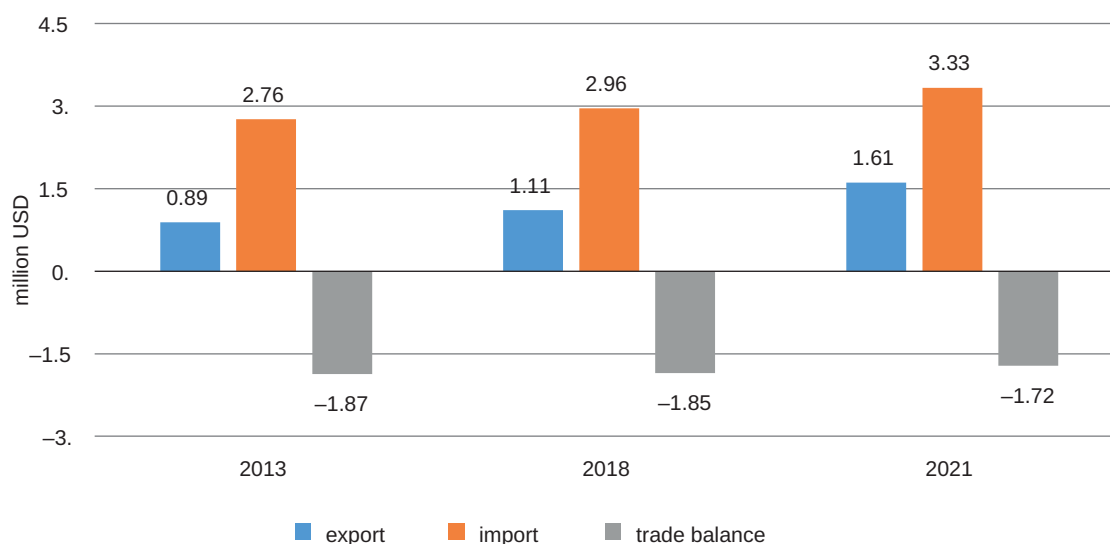


Figure 7. Ukraine-USA commodity trade indicators, 2013–2021, million USD

Source: SSSU 2022a, data processed and visualised by the authors.

The most dynamic deepening of trade relations between Ukraine and the United States happened during the last three years. Between 2018 and 2021, imports of goods from Ukraine to the United States increased by 370 million USD (+ 12.5 percent), with exports increasing by 449 million USD (+ 45 percent). We assume this happened partly due to revision of the US Generalized System of Preference Program for Ukraine in 2019 – tariff preferences for Ukrainian imports had previously been cancelled. As a result, 155 product items were returned to the list of products subject to zero import duty, mainly products with a high degree of processing and so-called „niche”

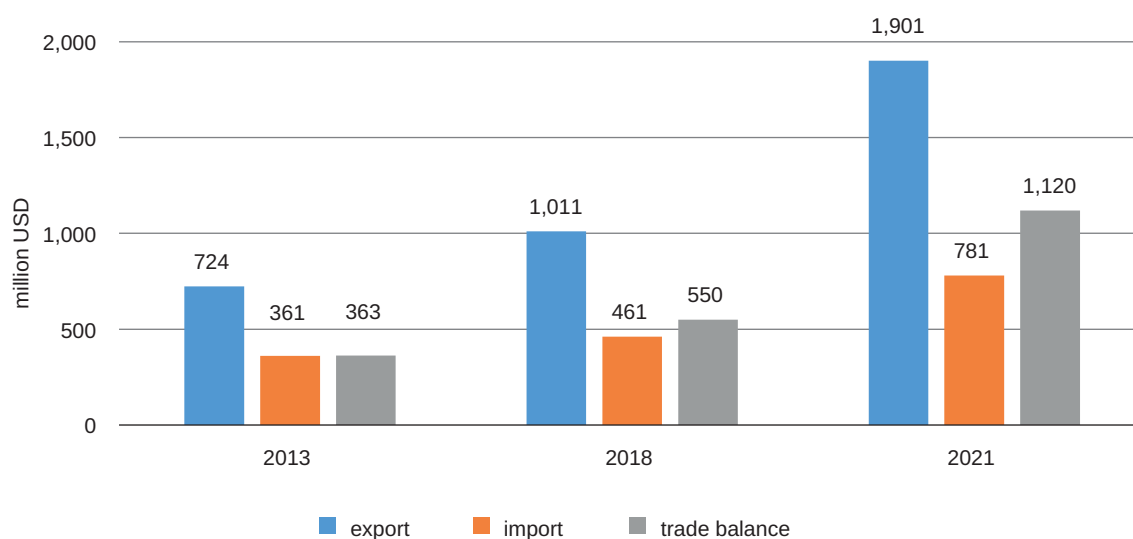


Figure 8. Ukraine-USA trade in services indicators, 2013–2021, million USD

Source: SSSU 2022b, data processed and visualized by the authors.

products, including confectionery, ready-made juices and jams, clothing, haberdashery, electrical and optical products, tools, engines and pumps, and furniture (USTR, 2019).

Trade in services grew much faster than the commodity trade. From 2018 to 2021, exports of services from Ukraine to the United States increased by 890 million USD, and imports by 320 million USD. Compared to 2013, exports of services from Ukraine to the United States increased by 262 percent, and imports by 216 percent; the positive balance increased by 308 percent – see Figure 8.

Noticeably, that trade in services also intensifies in 2018 (as with EU trade), though no significant agreements on trade in services were reached with the US at that time, either. Like the growth in the commodity trade, this sudden change can be partially explained as a side-effect of deepening integration with the EU. That is, infrastructural reforms aimed at Ukraine's integration into the European common market and approximation of national legislation to the legislation of the EU serve as a "green light" for American businesses. In addition, new political leaders of Ukraine expressed a great interest in deepening cooperation with the United States. Such warming in political relations between the states was a new impetus for trade cooperation.

Structural changes in Ukraine's commodity and services bilateral trade with the European Union and the United States

Ukraine's trade with the EU and the US also exhibits structural changes. Tariff liberalisation, which began in 2014 as part of the preparation to the free trade agreement between the EU and Ukraine, has ensured a significant reduction of customs barriers for Ukrainian goods coming into the EU. The most significant liberalisation concerned consumer and intermediate goods (mainly products of animal and plant origin, ready-made food products, and chemical products). As a result, most Ukrainian exports to the EU for the period 2013–2020 were intermediate consumer goods (about 80%) and consumer goods (about 16%; Taran et al., 2022). The change in the structure of commodity exports was also ensured by the existing preferential tariff quotas with a zero import duty rate (primarily for agricultural and food products), which were granted to Ukraine within the framework of the free trade agreement. The size of individual tariff quotas has gradually increased over the past 5 years, so we can see increasing export dynamics in these product groups (grain, flour, barley, processed grain products, processed malt and starch products, honey, apple and grape juices, eggs, etc.).

Currently, the highest increase in Ukrainian exports to the European Union occurred with ferrous metals and iron ores, along with grain and vegetable fats, accounting for about half of exports to the EU. The most noticeable trends in the dynamics of Ukrainian commodity exports to the EU are as follows:

1. Increase in the export of ferrous metals and iron ores. In particular, the export of ores, slag, and ash increased from 1.72 billion USD in 2013 to 3.0 billion USD in 2021 (the share of the total export of Ukraine to the EU increased from 10.3 percent to 11.2 percent). The export of ferrous metals grew by 34 percent between 2013 and 2021, but the share of total exports decreased from 24.5 to 20.3 percent. These data show a moderate decrease in the role of export of metals.
2. There was a 40 percent increase in the volume of agricultural product exports, namely for such commodity items as cereals, seeds, and oil plants (from 1.05 billion USD in 2013 to 1.48 billion USD in 2021). Export growth rates for such commodity items as fats and oils, milk and dairy products, eggs, honey, nuts, vegetables, juices, and meat are also noticeable. However, the share of these groups in total exports remained at about the 2013 level.
3. The export of machines and equipment to the EU has grown significantly. The export of electric machines increased from 1.49 billion USD in 2013 to 2.57 billion USD in 2021 (by 72 percent). There was also a noticeable increase in the export of nuclear boilers, reactors, engines, land transport, ships, and railway locomotives, which proves a positive trend – the growing role of technology-intensive products in Ukrainian exports.
4. There have been significant changes in the structure of commodity exports as to the level of processing. In 2013, raw materials, semi-finished products, and processed products took almost equal shares in exports to the EU (33 percent each). In 2021, the share of raw materials was 29

percent, semi-finished products – 23 percent, and processed goods – 48 percent. At the same time, household goods (furniture, clothing, textiles) and products of Ukrainian engineering are gradually joining the list of export commodities, which shows in the diversification of Ukrainian exports to the EU (SSSU 2015, SSSU 2022d).

The fact is that while Ukrainian exports to the EU have become more diversified, its structure remains mainly raw and low-tech. At the same time, there has been a gradual increase in export quotas for goods with a higher degree of processing and added value (especially certain industrial and agricultural items), as well as an increase in Ukraine's participation in the regional added-value chains of the EU.

The structure of services exports to the EU has also undergone significant changes. A rapid growth in the share of telecommunications, computer and information services can be observed (from 13 percent in 2013 to 28 percent in 2021). The volumes of processing services, construction services, insurance services and services for individuals, and cultural and recreational services have also increased. At the same time, the transport services sector shows the largest reduction in terms of the share in total export – from 47.05 percent in 2013 to 29.6 percent in 2021, which results in large part from the loss of cargo transit flows due to military aggression and transit restrictions set by the Russian Federation. The share of services related to financial activities has also decreased – from 3.36 to 1.1 percent (Table 1).

Table 1. Ukrainian service exports to the European Union, 2013 and 2021*

Types of services	2013		2021		2021 to 2013 percentage change
	Export volumes, million USD	Share in total, %	Export volumes, million USD	Share in total, %	
Material resources processing services	617.06	14.7	958.44	21.3	+55.3
Repair and maintenance services not included in other categories	92.48	2.2	77.01	1.7	–16.7
Transport services	1,974.24	47.05	1,330.02	29.6	–32.6
Travels	73.26	1.74	44.67	1.0	–39.1
Construction services	24.79	0.6	28.12	0.6	+13.5
Insurance	24.89	0.6	98.06	2.2	+294
Financial services	141.41	3.36	50.17	1.1	–64.6
Royalties and other services related to the use of intellectual property	24.49	0.6	23.98	0.5	–2.1
Telecommunication services, computer and information services	551.54	13.15	1,254.68	28	+127.5
Business services	644.27	15.35	593.24	13.2	–7.93
Services for individuals, cultural and recreational services	16.98	0.4	33.09	0.7	+94.8
State and governmental services	10.29	0.25	2.80	0.1	–72.8
Total*	617.06	14.7	958.36	21.3	+55.3

* Excluding Crimea and the occupied territories of Donetsk and Lugansk.

Source: SSSU 2015, SSSU 2022e; table by the authors.

Since the beginning of the 8-year war with Russia, there have been some changes in the structure of Ukrainian exports to the United States, which is, as in the case of the EU, a result of the reorientation of regional trade flows from the Russian to the Western markets. In pre-war 2013, the main merchandise exports to the United States were ferrous metals – 30.4 percent, ferrous

metal products – 14.9 percent, inorganic chemicals – 23.7 percent; agricultural and food products accounted for 3 percent. In 2021, the most important exports to the United States were ferrous metals – 56.2 percent, ferrous metal products – 8.7 percent, ores, slags and ash – 4.6 percent, and fats and oils of vegetable and animal origin – 3.8 percent. The total contribution of agricultural and food products increased to 9 percent. Exports of metals increased due to industrial regions, and volumes of agricultural export increased at the expense of agricultural ones. At the same time, the range of exported consumer goods has expanded and the role of medium- and high-tech goods is growing. The most noticeable trends in the dynamics and structure of Ukrainian commodity exports to the United States are as follows:

1. The growth of agricultural products in volume and share of exports. In particular, export volumes of such commodity groups as fats and oils of animal or vegetable origin have grown from 4.67 million USD in 2013 to 60.9 in 2021. The share increased from 0.9 to 3.8 percent. Sales of vegetable processing products increased from 1.2 million USD in 2013 to 3.88 million USD in 2021, the share changed from 0.1 percent to 2.4 percent. Among others, not so significant in volume, but noticeable in terms of growth (more than 1000 times) are exports of milk and dairy products, eggs, crustaceans, and vegetables.
2. An increase in exports of metal ores and metals. In particular, exports of ores, slags, and ashes grew from 1.87 million USD in 2013 to 75.27 million USD in 2021 (the share in total exports increased from 0.1 to 4.6 percent). Export volumes of ferrous metals increased from 269.77 million USD in 2013 to 912.27 million in 2021.
3. A significant reduction in exports of inorganic chemicals from 210.4 million USD in 2013 (23 percent of total exports to the United States) to 9.97 million USD in 2021 (0.9 percent of total exports) and an increase in exports of organic compounds and finished chemicals.

Table 2. Ukrainian export of services to the United States, 2014 and 2021*

Types of services	2014		2021		2021 to 2014 percentage change
	Export volumes, million USD	Share in total, %	Export volumes, million USD	Share in total, %	
Material resources processing services	0.87	0.1	1.16	0.1	+34.4
Repair and maintenance services not included in other categories	4.49	0.7	5.22	0.3	+16.3
Transport services	166.35	24.2	222.55	11.6	+33.8
Travels	7.70	1.1	12.35	0.7	+60.5
Construction services	1.85	0.3	4.29	0.2	+131.8
Insurance	3.85	0.6	2.81	0.2	–26.97
Financial services	30.49	4.4	31.46	1.7	+3.2
Royalties and other services related to the use of intellectual property	2.30	0.4	4.10	0.2	+37.1
Telecommunication services, computer and information services	360.01	52.3	1,393.60	73.2	+287.1
Business services	105.67	15.4	217.15	11.4	+105.5
Services for individuals, cultural and recreational services	3.15	0.5	2.80	0.2	–11.49
State and governmental services	0.01	0	3.78	0.2	+278.0
Total**	687.44	100	1,901.27	100	+176.6

* Excluding Crimea and the occupied territories of Donetsk and Lugansk.

Source: authors' processing using the data (SSSU 2022b, table by the authors).

4. Changes in the structure of exports of machinery and equipment to the United States. Against a reduction in aircraft exports of almost two-thirds (from 61.7 million USD in 2013 to 20.7 in 2021), there was a significant increase in exports of ships (by 5.01 million USD), optical and photographic devices (by 5.38 million USD), nuclear boilers, reactors, and engines (by 14.13 million USD), and electric machines – by 40.13 million USD. Thus, machinery and equipment sales show a positive trend in terms of both volume and share in the structure of Ukrainian exports.
5. Growth in the share of finished consumer products and general diversification of export structure. Ukraine has begun to supply the US with the products of light industry – ready-made clothing and fabrics, threads, textiles, toys, furniture, and works of art.

The structure of trade in services has also undergone significant changes (Table 2). The increase in the share of high-tech services – telecommunications, computer, and information services – from 52.3 to 73.2 percent of total exports to the US is obviously a positive trend.

The role of transport services, the predominance of which in the structure of exports is a characteristic of most low-income economies, has decreased. In 2013, transport services accounted for 24.2 percent of exports, as compared to only 11.6 percent in 2021. There was a growth in all types of services, except for insurance services and services to individuals, including recreational, which is obviously due to the unstable political and security situation in the country. The growth of state services (more than 300 times) testifies to the strengthening of cooperation at the governmental level.

Regional dimension of reorientation of trade flows

The growth of Ukrainian exports to the EU over the past 8 years is also reflected in the regions. Since 2013, almost all regions of Ukraine were showing increase in the volume of commodity export, with the exception of Donetsk, Lugansk, and the city of Kyiv. The largest share of exports of goods to the EU in 2020 came from Dnipropetrovsk, Donetsk, Lviv, Transcarpathian regions, and the city of Kyiv, which together account for about 60 percent of all commodity export to the EU.

The most rapid growth of commodity exports from 2013 to 2020 was for Chernivtsi (+240 percent), Khmelnytskyi (+220 percent), Chernihiv (+216 percent), Lviv (+208 percent), Kherson (+128 percent), and the Transcarpathian (+124 percent) and Dnipropetrovsk regions (+112 percent). At the same time, the COVID-19 pandemic had a negative impact on export volumes in 2020 compared to the pre-crisis 2019 levels, showing a 10.3 percent overall drop.

The Western regions of Ukraine, namely Lviv, Ternopil, Transcarpathia, Volyn, and Ivano-Frankivsk, supply the EU with machines and equipment, including electrical. In the Eastern regions (Lugansk, Donetsk, Zaporizhzhya, Sumy, Poltava, and Dnipropetrovsk), metals and metal products, chemicals, minerals, and food products form the basis of exports. The central regions (Khmelnytskyi, Odesa, Vinnytsia, Rivne, Zhytomyr, Cherkasy, Mykolaiv, Chernihiv, Kherson, Kirovohrad, and Kyiv regions) are mainly agriculture-oriented and export wood products, fats, and oils of animal and vegetable origin.

The largest share of the total services exports to the EU belongs to the city of Kyiv (48 percent of the total volume in 2020), the Lviv region (11.8 percent), the Odesa region (6.5 percent), and Transcarpathia (6.1 percent). The Volyn, Transcarpathia, Zhytomyr, Lviv, Ternopil, and Khmelnytskyi regions are most concentrated on services exported to the EU (over 80 percent of exported services from these regions go to the Union), while the Donetsk and Mykolaiv regions sell less than 20 percent of their services in this direction – see Table 3.

The capital of Ukraine is the undisputed leader in terms of selling information, scientific, technical, business and transport services to the EU. Western regions focus on services for the processing of material resources, transport services, construction services, as well as cultural and recreational services. Eastern and Central regions specialize in transport and processing services (SSSU 2015, SSSU 2021b).

Table 3. Regional dimension of Ukraine's goods and services exports to the EU, 2020

Regions of Ukraine	Goods			Services*		
	Million USD	% of the total export from the region	% of the total export from Ukraine	Million USD	% of the total export from the region	% of the total export from Ukraine
Vinnitsya	546.06	36.9	2.9	56.74	34.5	1.3
Volyn	501.12	77.9	2.7	79.65	95.0	1.8
Dnipropetrovsk	2,030.25	26.7	10.9	94.83	50.1	2.1
Donetsk	1,822.86	46.3	9.8	15.17	17.9	0.3
Zhytomyr	430.41	63.2	2.3	70.56	87.7	1.6
Transcarpathia	1,274.73	94.5	6.9	274.18	92.7	6.1
Zaporizhzhya	724.25	24.8	3.9	38.92	22.8	0.9
Ivano-Frankivsk	449.13	59.3	2.4	45.44	75.6	1.0
Kyiv (region)	765.30	38.9	4.1	154.74	56.7	3.5
Kropyvnytskyi	249.84	27.4	1.3	8.16	34.4	0.2
Lugansk	73.10	56.4	0.4	7.67	27.5	0.2
Lviv	1,808.02	77.8	9.7	528.48	82.4	11.8
Mykolaiv	364.18	16.2	2.0	52.69	15.2	1.2
Odesa	344.70	25.3	1.8	287.89	34.0	6.5
Poltava	813.05	35.1	4.3	18.18	44.9	0.4
Rivne	385.54	82.1	2.1	37.14	51.8	0.8
Sumy	309.26	31.7	1.7	6.55	22.9	0.1
Ternopil	336.48	75.1	1.8	96.12	86.9	2.2
Kharkiv	363.01	24.7	2.0	143.33	35.4	3.2
Kherson	127.73	45.5	0.7	11.84	36.3	0.3
Khmelnysk	327.00	49.3	1.8	23.30	93.1	0.5
Cherkasy	303.72	37.5	1.6	13.11	30.6	0.3
Chernivtsi	134.14	79.6	0.7	30.15	65.9	0.7
Chernihiv	328.41	36.9	1.8	18.56	52.8	0.4
Kyiv (city)	3,787.97	30.5	20.4	2,142.74	50.3	48.0

* Including volumes of services not distributed among regions.

Source: SSSU 2021a, table by the authors.

Commodity trade with the United States does not make a significant contribution to the export incomes of the Ukrainian regions. The largest volumes of commodity export to the United States in 2020 were from Dnepropetrovsk, Donetsk, Zaporizhzhya regions. These regions, together with the city of Kyiv, export almost 80 percent of all goods to the United States – Table 4. However, since 2018, there has been no increase in exports from these regions except Zaporizhzhya region, while Lviv, Chernivtsi and Poltava regions showed an increase in exports of goods to the United States even during the COVID-19 pandemic. Thus, export from Lviv region increased by 92 percent in 2020 compared to 2018, Chernivtsi region by 84 percent, and Poltava region 5 times. In pre-crisis 2019, ten regions of Ukraine showed positive dynamics of exports to the United States.

Table 4. Regional dimension of Ukraine's commodity and services export to the US, 2020

Regions of Ukraine	Goods			Services		
	Million USD	% of the total export from the region	% of the total export from Ukraine	Million USD	% of the total export from the region	% of the total export from Ukraine
Vinnitsya	22.14	1.6	2.3	10.30	6.0	0.67
Volyn	0.23	0.1	0.0	1.13	1.4	0.07
Dnipropetrovsk	192.65	2.6	19.6	36.34	19.2	2.36
Donetsk	263.70	6.7	26.8	0.77	0.9	0.05
Zhytomyr	2.25	0.3	0.2	1.20	1.5	0.08
Transcarpathia	1.56	0.2	0.2	8.21	2.8	0.53
Zaporizhzhya	223.51	7.6	22.7	9.53	5.6	0.62
Ivano-Frankivsk	1.14	0.2	0.1	5.00	8.4	0.33
Kyiv (region)	8.93	0.5	0.9	9.99	3.7	0.65
Kirovograd	11.34	1.3	1.2	12.67	53.5	0.82
Lugansk	3.08	2.4	0.3	0.21	0.8	0.01
Lviv	17.80	0.8	1.8	62.75	9.8	4.08
Mykolaiv	2.08	0.1	0.2	4.37	1.3	0.28
Odesa	18.38	1.4	1.9	20.21	23.8	1.31
Poltava	48.06	2.1	4.9	4.16	10.3	0.27
Rivne	3.07	0.7	0.3	2.41	3.4	0.16
Sumy	14.15	1.4	1.4	1.24	4.3	0.08
Ternopil	5.13	1.1	0.5	1.65	1.5	0.11
Kharkiv	15.72	1.1	1.6	114.88	28.4	7.47
Kherson	4.90	1.8	0.5	1.58	4.8	0.10
Khmelnysk	6.46	1.0	0.7	0.11	0.5	0.01
Cherkasy	3.5	0.4	0.4	233.86	54.6	15.21
Chernivtsi	0.42	2.5	0.4	1.21	2.7	0.08
Chernihiv	3.34	0.4	0.3	5.46	17.0	0.35
Kyiv (city)	105.87	0.8	10.8	987.82	23.2	64.27

Source: authors' processing using the data (SSSU 2014, 2021b). Table by the authors.

The share of the United States in services exports is the highest for Kirovograd, Odesa, Cherkasy, and Kharkiv regions and Kyiv, the lowest – for Donetsk, Lugansk, Mykolaiv, Khmelnytsk and Ternopil regions. Over 86 percent of services exported to the USA originate from Kyiv city, Cherkasy, and Kharkiv regions (SSSU 2014, 2021). Thus, there is a high differentiation of regional volumes in Ukrainian exports of goods and services to the US. Undoubtedly, this trade direction is still underdeveloped for some regions, leaving a significant concentration of exports coming from a few regions of Ukraine.

Discussion

Ukraine's progress in decreasing trade connections and thus economic dependence on Russia is even more obvious in comparison with Georgia, which also suffered from the military intervention of the Russian Federation. Ukraine and Georgia have at least two common factors significantly affecting their participation in world trade – close economic relations with an aggressive neighbour and the chosen path to in-depth cooperation with the EU, which took the form of official association.

Even in the active phase of the war, Ukraine is strengthening cooperation with the EU and achieving significant success in this direction – it was granted EU candidate status in June 2022.

The political will of Ukrainian leaders and public support within Ukraine and abroad play an important role in these processes.

Georgia is restoring and increasing trade ties with the Russian Federation that preclude its further integration with the EU. The country is strongly dependent on energy and food imports from the Russian Federation. Thus, according to Transparency International Georgia, energy resources comprise 36 percent of imports from the Russian Federation, which undermines the foundations of the country's economic security. About 94 percent of wheat and flour comes from the aggressor country. More than 55 percent of exported wine – Georgia's leading global export – is sent to Russia. Since the beginning of the military aggression of Russia against Ukraine, the volumes of bilateral trade and Russian investment in the Georgian economy have increased significantly. During March–May 2022, more than 6,400 new Russian companies were registered in Georgia, which is 7 times more than in the same period in 2021 (Transparency International Georgia, 2022).

Despite positive developments and progress in the implementation of the provisions of the Association Agreement with the EU, which entered into force in 2014, Georgia is maintaining active interaction with the Russian Federation, and the reallocation of trade flows towards the EU has not actually occurred. According to Georgian government data, in 2010 (2 years after the military conflict in Abkhazia and South Ossetia), trade with the Russian Federation accounted for only 2 percent of turnover, while by 2014 it had grown to 7.4 percent, and yet further in 2021 to 11.4 percent. Trade with the EU accounted for 18.5 percent in 2010, 21.8 percent in 2014 (the year when the Association Agreement entered into force for Georgia), and 21 percent after 8 years of the agreement. The USA's share in Georgian trade remained the same. In 2021, the country's share in the turnover was 5.9 percent, close to the 2010 figure of 5.3 percent (Statistical Yearbook of Georgia 2009; Statistical Yearbook of Georgia 2015; Statistical Yearbook of Georgia 2021). The recovery of trade ties with Russia will probably have a negative effect both on Georgia's economic security and further integration with the EU.

Conclusions and recommendations

The statistical data show a strong trend of intensifying trade between Ukraine and both the European Union and the United States during the eight years since 2014. This was caused by the need to reorient trade flows away from Russia and the shift in foreign policy from East to West, from partners of the post-soviet environment to democratic economies. Furthermore, the implementation of a Deep and Comprehensive Free Trade Area with the EU is aimed at making Ukraine a reliable trade partner and so we can assume that deepening integration with the EU has a positive effect on Ukraine's trade with the US as well.

Growing trade cooperation with the EU and the US is one of the ways to resolve the most important and difficult task for the modern Ukrainian economy – decreasing economic dependence on Russia. The statistical analysis shows positive trends in both the volume and structure of Ukraine's trade with the EU and the US. Diversification of trade flows, expansion of exports in which Ukraine already has a strong specialisation (foods, metals, and ores) as well as a growing share of high value-added goods, including equipment and machinery are the features of current trade cooperation with the studied partners. However, raw materials still make up a large share of Ukraine's exports to the EU and especially to the US. Growing trade in technology-intensive telecommunication, computer, and information services is also very important from the view of modernising Ukrainian export, bringing it closer to the current trends and demands of the global economy.

Ukraine's trade cooperation with the EU, including regional, has a special character. It is obvious that trade cooperation between the Western Ukrainian regions and the regions of neighbouring EU countries, which was close before, received a new impetus and new opportunities after the signing of the Association Agreement and its entry into force.

Due to their remoteness, differences in the size of their economies, and the post-Soviet influence of Russia, Ukraine is not a strategic trading partner for the United States, though the role of the US in Ukraine's foreign trade has been growing swiftly in recent years. Considering the warming in political relations, the reinstatement of tariff exemptions for Ukrainian imports from the side

of the US, and enormous support in the struggle against the aggressor, trade cooperation between the regions of Ukraine and the United States may intensify in the near future.

The regional trade flows to the US are rather uneven, in contrast to trade with the EU, in which almost all regions of Ukraine are actively involved. However, it is obvious that the large industrial regions of the east and southeast of Ukraine have the closest trade cooperation with the US companies in commodity trade, while services exported to the United States originate primarily from Kyiv and the central regions.

Further development in priority areas of cooperation between the regions of Ukraine, the EU, and the US will depend on the post-war product specialisation of the regions and their ability to refocus on new partnerships. The conditions of access to foreign markets and the political will of the partners to support Ukraine in a difficult political-economic situation will also play a crucial role.

References

- Artamonova, H., 2019, 'Foreign trade of Ukraine: Opportunities and challenges', *Journal of European Economy*, 3(70), 283–295. Available at: <http://jeej.wunu.edu.ua/index.php/ukjee/article/view/1398/1389> (accessed: 15.02.2023).
- Diatlova V. V., and Polozhentseva K. V., 2020, 'Foreign economic activities of Ukraine: Regional features, trends and directions for development', *Visnyk ekonomichnoi nauky Ukrainy*, 1(38), 73–78.
- Lazhik, V. and Melnyk, L., 2012, 'Foreign trade between Ukraine and the United States: dynamics, current state and regional differentiation', *Scientific Herald of Volyn National University*, 9(234), 143–152. Available at: <http://global-national.in.ua/archive/17-2017/11.pdf> (accessed: 15.02.2023).
- Rakhman. M., Yevtushenko, V., and Rudas, D., 2020, 'Foreign economic activity of Ukraine with EU countries', *Market Infrastructure*, 43, 39–44. Available at: http://www.market-infr.od.ua/journals/2020/47_2020_ukr/9.pdf (accessed: 13.02.2023).
- Sokolovska, O., 2020, 'Foreign trade concerns of Ukraine and its regions under the global crisis', *Visnyk ekonomichnoi nauky Ukrainy*, 1(38), 97–102. Available at: [http://www.venu-journal.org/download/2020/1\(38\)/13-Sokolovska.pdf](http://www.venu-journal.org/download/2020/1(38)/13-Sokolovska.pdf) (accessed: 15.02.2023).
- SSSU, 2014, *Regions of Ukraine 2014 in 2 volumes*, vol. 2, Kyiv: State Statistical Service of Ukraine.
- SSSU, 2015, *Cooperation between Ukraine and EU countries in 2014*, Kyiv: State Statistical Service of Ukraine.
- SSSU, 2021a, *Cooperation between Ukraine and EU countries in 2020*, Kyiv: State Statistical Service of Ukraine.
- SSSU, 2021b, *Regions of Ukraine 2020 in 2 volumes*, vol. 2, Kyiv: State Statistical Service of Ukraine.
- SSSU, 2022a, *Dynamics of the geographical structure of foreign trade in goods (1996–2021)*, Kyiv: State Statistical Service of Ukraine. Available at: <https://ukrstat.gov.ua> (accessed: 15.01.2023).
- SSSU, 2022b, *Dynamics of the geographical structure of foreign trade in services (1996–2021)*, Kyiv: State Statistical Service of Ukraine. Available at: <https://ukrstat.gov.ua> (accessed: 15.01.2023).
- SSSU, 2022c, *Foreign trade in services with countries (by type of service)*, Kyiv: State Statistical Service of Ukraine. Available at: <https://ukrstat.gov.ua> (accessed: 15.01.2023).
- SSSU, 2022d, *Structure of foreign trade in goods with EU countries in 2021*, Kyiv: State Statistical Service of Ukraine. Available at: <https://ukrstat.gov.ua> (accessed: 15.01.2023).
- SSSU, 2022e, *Structure of foreign trade (by types of services) with EU countries in 2021*, Kyiv: State Statistical Service of Ukraine. Available at: <https://ukrstat.gov.ua> (accessed: 15.01.2023).
- Statistical Yearbook of Georgia 2009*, 2009, Ministry of Economic Development of Georgia, Department of Statistics. Available at: <https://www.geostat.ge/en/single-archive/2613>. (accessed: 15.01.2023)/
- Statistical Yearbook of Georgia 2015*, 2016, Ministry of Economic Development of Georgia, Department of Statistics. Available at: <https://www.geostat.ge/en/single-archive/3019> (accessed: 15.02.2023).
- Statistical Yearbook of Georgia 2021*, 2022, National Statistics Office of Georgia. Available at: <https://www.geostat.ge/en/single-archive/3367> (accessed: 15.02.2023).
- Taran, S., Shepotylo, O., Yavorskyi, P., and Bondarenko, E., 2022, 'Analysis of trade in goods between Ukraine and the EU under the FTAA: current state and prospects for liberalization', Kyiv School of Economics. Available at: <https://kse.ua/ua/kse-research/analiz-torgivli-tovarami-mizh-ukrayinoyu-ta-yes-v-ramkah-pvzvt-potochniy-stan-ta-perspektivi-dlya-liberalizatsiyi/> (accessed: 15.02.2023).
- Transparency International Georgia, 2022, 'Georgia's economic dependence on Russia: Impact of the Russia-Ukraine war'. Available at: <https://transparency.ge/en/post/georgias-economic-dependence-russia-impact-russia-ukraine-war> (accessed: 15.02.2023).

- USTR, 2019, 'Products to be restored to GSP eligibility for Ukraine, effective October 30, 2019', Office of the United States Trade Representative. Available at: https://ustr.gov/sites/default/files/files/gsp/Products_to_be_restored_to_GSP_eligibility_for_Ukraine.pdf (accessed: 15.01.2023).
- Vasylytsya, O., 2017, 'Trade and economic relations between Ukraine and the USA in the modern period', *Global and National Problems of Economy*, 17, 38–42. Available at: <http://global-national.in.ua/archive/17-2017/11.pdf> (accessed: 10.02.2023).
- Zelinska, O., 2020, 'Conceptual approaches to improving the foreign economic activity of the region in the context of Euro-Regional cooperation', *Innovative Economy*, 5–6(84), 5–12. Available at: <http://inneco.org/index.php/innecoua/article/view/622/712> (accessed: 15.02.2023).

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