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Current challenges of agricultural trade liberalisation between Ukraine and the EU

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► **Abstract.** Agriculture is the main specialisation of Ukraine in the international arena, which is associated with its geographical features and relatively inexpensive labour. Despite this, it remains relevant to find opportunities for the development of this industry in the country through the use of all available methods. The purpose of the study is to describe the current challenges that arise in the trade relations between these subjects of international entities. This paper examines how the situation in the agricultural sector can be improved by liberalising trade between Ukraine and the European Union. The main methods used are analysis, prediction, abstraction, and deduction. Within the framework of this study, trends in trade in agricultural products between Ukraine and the European Union are evaluated. The paper establishes that this union became the largest Ukrainian trading partner after the outbreak of war. This was caused both by actions on the part of the European Union in support of Ukraine and by the blockade of seaports, which limited the country's export options to only the land route. The study describes the features of changes in the structure of external trade between the unions in the agricultural sector and proposes specific methods to address existing issues in international interactions between countries to better understand the specific features of economic relations between Ukraine and the European Union. In addition, the study includes recommendations on how to improve relations between these subjects of international relations in the future and solve the difficulties that still exist between them in the trade in agricultural products

► **Keywords:** international relations; macroeconomics; agricultural sector; international politics; Ukrainian European integration

► Introduction

Agriculture is one of the main industries in Ukraine, which it specialises in within the framework of international trade. This became especially relevant after the outbreak of war with Russia in 2014, when the country lost its competitive advantages in other sectors of the economy, in particular metallurgy (Balzer, 2015; Ericson & Zeager, 2015). Given the country's substantial dependence on successful exports of agricultural products, ensuring a stable supply of these products abroad has become very important, in particular during the full-scale invasion of Russia in 2022. After the naval blockade, it became quite problematic for Ukraine to ensure the export of products abroad, which was restored only through the diplomatic efforts of Ukrainian diplomacy and the formation of the so-called Black Sea Grain Initiative, in which Turkey acted as an intermediary that would ensure

the unhindered export of products abroad (Strengthening the blockade..., 2023).

Nevertheless, further development of relations with other countries to ensure high-quality cooperation in the framework of agricultural trade is still relevant both now and in the future. In particular, it is important to consider this problem in the framework of interaction with the member states of the European Union (EU), which is determined by geographical, economic, and political reasons. In addition, as shown in the paper below, there have been some misunderstandings between countries since the start of the full-scale invasion regarding the export of agricultural products to the countries of the union. This study provides recommendations that should minimize possible conflicts with EU member states over trade in agricultural products.

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A significant number of researchers examined the current state of the agricultural sector. In Particular, G.S. Kukel *et al.* (2022) investigated the features of the development of the labour market in agriculture. Researchers noted that the state should implement a comprehensive policy related to supporting the agricultural sector, aimed, among other things, at small and medium-sized enterprises in the industry. The current state and prospects of agricultural development were also examined by N.Ya. Zabolotnia & V. Svidynska (2022), paid considerable attention to the opportunities for the development of the country's agricultural sector during and after the war. The assessment of relations between Ukraine and the European Union is also important. The positive and negative consequences for the country from such integration were assessed in the paper by A.T. Khevturiani (2020); notably, the researcher makes a general conclusion about the attractiveness of the country's accession to the union and the establishment of such a partnership. The prospects for European integration were also assessed by M. Zhytar & O. Lisnichuk (2022), who described the economic benefits of membership in the organisation, and existing obstacles that prevent the possibility of obtaining this status. A similar study was also conducted by O. Shnyrkov & O. Chegaiev (2023). However, they also pay considerable attention to certain components of economic cooperation between countries, in particular, trade between them.

Thus, the purpose of the study is to show the challenges in the framework of liberalising trade in agricultural products between Ukraine and the EU member states.

► Materials and methods

During the study, separate statistical data were used to conclude, in particular, the official website of the World Trade Organization (2023). In addition, statistical data were used, information from which demonstrated estimates of product flows to European countries (Trade Map, 2023). All calculations were performed in Microsoft Excel.

The study analysed the level of agricultural exports in quarterly and monthly terms. However, free internet sources do not provide such information, which is why it should have been grouped (Trade Map, 2023). Three major export groups were used for this, with the following numbers: 10 (cereals), 12 (oilseeds, seeds, and fruits; various grains, seeds, and fruits; industrial or medicinal plants; straw and fodder), and 15 (animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes). Their amount is determined in the framework of this study as the export of the agricultural sector. This is based on the assumption that these three major export groups constitute the majority of the total exports for the given group of goods, and therefore, the use of additional, smaller groups will not significantly affect the overall picture.

The main approach used in the study was the system approach. It allowed assessing the factors affecting relations in the field of international trade between Ukraine and the EU in the form of separate interrelated flows that form a single system. A notable number of methods were also used as part of the study. In particular, the analysis played a crucial role in assessing significant volumes of

data regarding the challenges that exist in terms of liberalising trade in agricultural products between Ukraine and the EU. It also allowed concluding how to avoid these challenges.

Furthermore, a historical method was used, which allowed analysing of the data in retrospect to better understand the current trends in the existence of such challenges in the context of trade in agricultural goods. The deduction was used to identify possible factors influencing the development of relations in the field of trade based on their current state. Abstraction also played a crucial role by allowing the avoidance of evaluating the impact of individual factors when analysing them, considering their relatively low importance in influencing the relations between the European Union and Ukraine. Forecasting was also applied, enabling predictions to be made regarding the future development of trade relations between the two selected entities in international relations. Statistical research methods were used to analyse quantitative data. Using the graphical method, the necessary figures for understanding and drawing the main conclusions for the study were constructed.

► Results

Ukraine is developing the agricultural sector at an increasing pace, which is reflected in the increase in agricultural exports. Based on the data in Figure 1, it is possible to analyse changes in the export of agricultural products of Ukraine in recent years.

As seen from Figure 1, the value of agricultural sector exports in Ukraine exhibits an upward trend throughout the selected period. A noticeable decline began in early 2022, due to a full-scale Russian invasion. One quarter before the invasion, the value of exports significantly increased, reaching a record level of 8 billion dollars. In more detail, the trends that occurred after the start of a full-scale invasion are shown in Figure 2.

As can be seen from Figure 2, in the period from September 2021, there is a noticeable increase in the value of exports of agricultural products and its peak was reached in November. Given Figure 1, this trend can be explained by several circumstances. Firstly, the increasing threat from Russia towards Ukraine on the frontlines led to a rise in commodity prices, including agricultural products. Secondly, this period (late summer-autumn) is the main one for farmers in terms of sales of grown products. This is due to the seasonality of production of agricultural products. Thirdly, the factor mentioned in the description to Figure 1 also has an impact, which is related to the desire of importers to fulfill contracts signed with Ukrainian producers as soon as possible to avoid problems associated with the start of an invasion in the future.

A sharp decline in exports occurs in February and March 2022, when Russian troops launched an invasion of Ukraine. Ukraine lost the opportunity to export products by sea, which was the main way at that time. Transportation by rail was also difficult due to the constant shelling; in addition, it would in any case not be possible to replace sea transportation due to the lower capacity. Although there have been some attempts to establish alternative export routes, it is not possible to achieve past performance indicators. Only in August 2022, after the signing

of the Black Sea grain agreement on July 22, it was possible to restore exports of products to close to last year's levels (Mikhailov, 2023). It is now worth considering how

the export of agricultural products to the European Union countries changed during the war. This information can be seen in Figure 3.

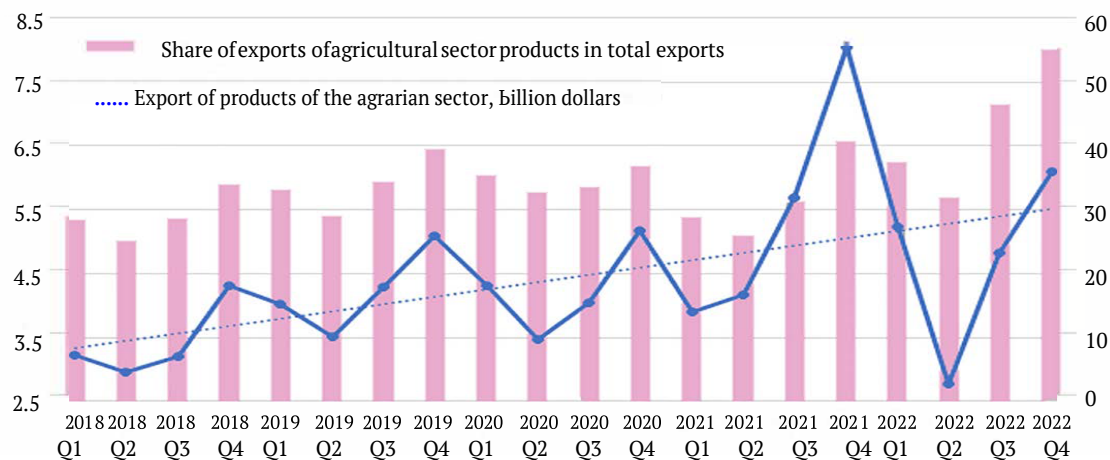


Figure 1. Importance of agricultural exports from 2018 to 2022

Note: Q – quarter

Source: compiled by the author based on data from the statistical source TradeMap (2023)



Figure 2. Monthly trends in the export of agricultural products in the period from May 2021 to December 2022

Source: compiled by the author based on the data from the statistical source Trade Map (2023)

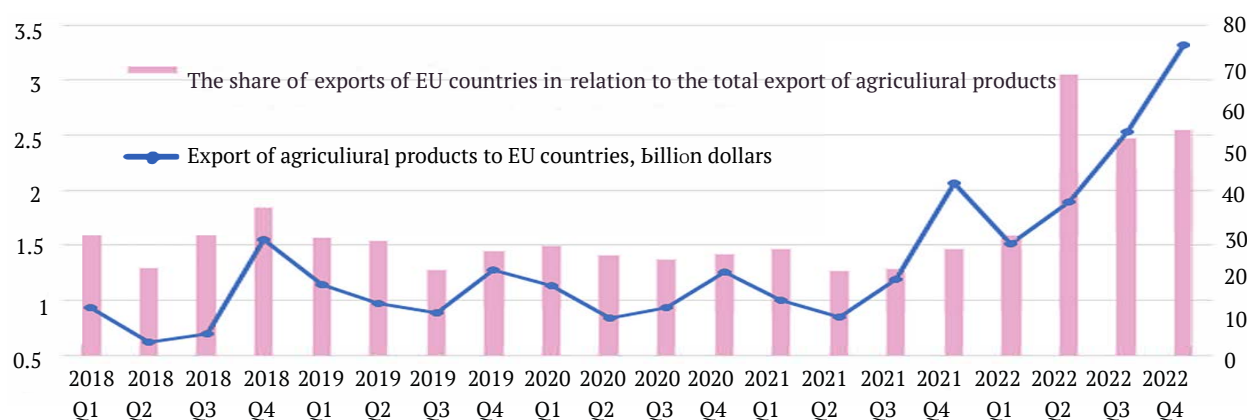


Figure 3. Agricultural exports to the European Union member states on a quarterly basis in the period from 2018 to 2022

Note: Q – quarter

Source: compiled by the author based on data from the statistical source Trade Map (2023)

As can be seen from Figure 3, the volumes of exports of goods to the European Union countries from Ukraine during 2018-2021 remained quite stable, with absolute export values varying between 0.5 to 1.5 billion dollars per quarter and relative values ranging from 10% to 35%. However, the situation has changed significantly since 2021. This is noticeable both in the volume of exports and in the share compared to other countries.

As noted above, this is due to the fact that Ukraine has lost the opportunity to export its own products abroad through other routes, except in transit through the countries of the European Union. This was also facilitated by the policies implemented aimed at reducing customs and unwashed restrictions. Figure 4 presents more information on the changes in the context of war-time exports.

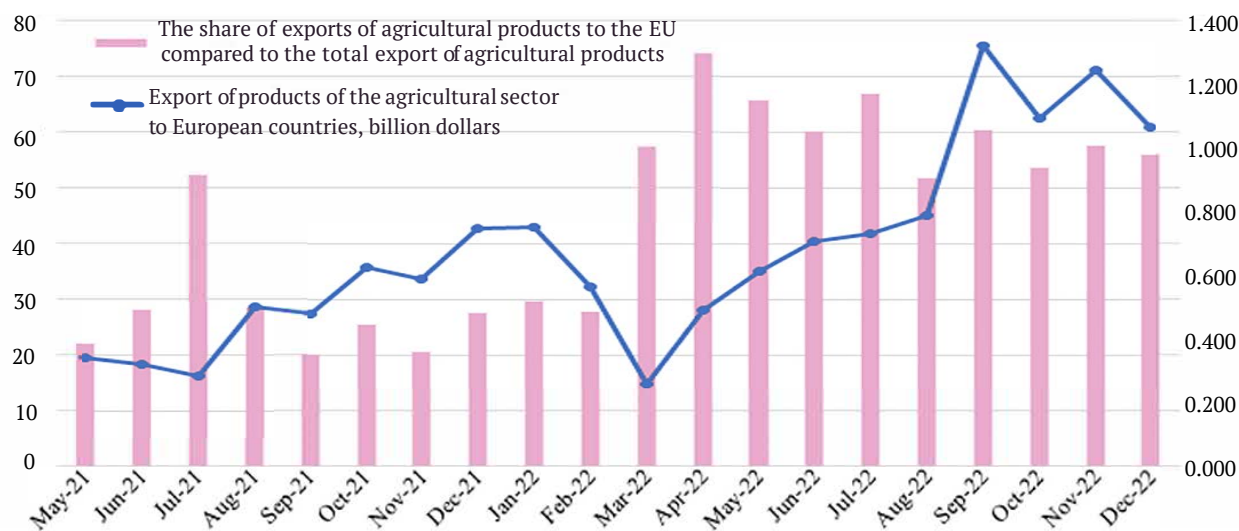


Figure 4. Volumes of agricultural exports to the European Union member states on a monthly basis in the period from 2018 to 2022

Source: compiled by the author based on the data from the statistical source Trade Map (2023)

As can be seen from Figure 4, export growth to European countries began in April 2022, and exceeded pre-war figures in August 2022. The value of exports through the European Union countries has increased to 50-60%, which is a huge indicator. This has led to the dependence of Ukraine on the possibility of exporting to the market of this union. In this case, any changes in the ability to supply products can lead to difficulties in the context of economic development. Although resolving this problem seems almost impossible at the moment, exporting goods to other countries can only be done through seaports. Therefore, increasing production that will be exported through such means will be challenging.

Trade liberalisation refers to the process of reducing trade barriers and restrictions between countries to create a free and open international market (Wacziarg & Welch, 2008; Leshchenko, 2023). This process involves reducing customs tariffs, quotas, and other restrictions on the import and export of goods and services. It has several important goals. First, it promotes increased economic growth and improved living standards in participating countries by stimulating entrepreneurship, attracting foreign investment, and expanding markets for products (Pitlik, 2003; Siddiqui, 2015). Second, liberalisation promotes inter-national cooperation and dialogue between countries, which has a positive impact on political and social stability (Yarbrough & Yarbrough, 1987; Köhler, 1988). Third, it promotes more efficient use of resources, increased competitiveness, and technology development (Syal, 2007).

In the field of agriculture, this process has certain features. They are related to the fact that agricultural products, like energy, are strategically important for countries, since they provide food and occupy a significant share of national production. This is the reason for relatively higher interest in protectionism, that is, the introduction of various barriers to entry into the market of enterprises in other countries. This can be seen when comparing the levels of customs rates for various types of products (agricultural and non-agricultural) (World Trade Organization, 2023). Another difficulty in the context of trade in agricultural products is the discrepancy in product quality and safety standards between countries. Different countries have their requirements and standards for food quality and safety, which can lead to challenges in the mutual recognition of imported products. Although Ukrainian products usually meet the requirements requested from other countries, this does not remove the risk associated with such obstacles.

After the start of a full-scale Russian invasion, a large number of countries, especially representatives of the Western world, began to help Ukraine develop in one way or another. Although such assistance was mainly implemented in the form of humanitarian or military assistance, its economic component is also important, namely, the issuance of cheap loans and the lifting of customs restrictions became a key component in supporting the country (What weapons are..., 2023). Given the last point, it is not surprising that a large number of Ukrainian products

began to be exported to European countries. In addition, this was due to some other reasons, in particular – unavailability of seaports. On this issue, the European Union countries decided to adhere to a policy of long-term trade liberalisation with Ukraine, which includes the abolition of tariff duties on the import of certain goods and the suspension of minimum import prices for one year. This is all the reason for such a spread of the country's exports among the EU, as shown in Figures 3 and 4.

Even though such actions on the part of European countries have generally led to positive consequences for them and Ukraine, it has also led to some difficulties. Advantages consist of the possibility of obtaining cheap Ukrainian products, which play a crucial role in reducing domestic prices that have already risen due to changes in energy supply conditions. However, such long-term free access to the market of more competitive products in Ukraine has led to certain discontent among European farmers. This led to the fact that Poland, which has supported Ukraine the most since the beginning of the invasion, imposed a ban on the import of several hundred items of food and cereals (wheat, corn, rapeseed, and sunflower), after which it was joined by other countries, namely Bulgaria, Hungary, Romania, and Slovakia (Panchenko, 2023). However, such a policy did not align with the overall direction of the union's development, which is dictated by the European Commission. Subsequently, the situation turned into a continuous debate between the five countries mentioned above and other representatives of the European Union, which forced the countries to make concessions. Nevertheless, the situation remains quite tense. The Ukrainian side is particularly discontent with the fact that such behaviour of representatives of Bulgaria, Hungary, Romania, Poland, and Slovakia contradicts the association agreement between the European Union and Ukraine (2007). It regulates trade relations between Ukraine and EU countries and does not have the authority to take actions that could lead to a deterioration of trade relations between the countries, especially in a unilateral manner. The restrictions were supposed to be lifted from June 5, 2023, but they were extended until September 15, which indicates existing problems with certain European countries regarding the import of Ukrainian products (the EU continues 2023).

The diplomatic component is important in this context: Ukrainian representatives must find a common language with European partners (both those who prohibit and those who advocate trade liberalisation in agriculture). This would enable finding a compromise between the parties that could partially satisfy all sides and avoid further deterioration of their relations. Currently, this option seems to be the continuation of unhindered import of goods from Ukraine in exchange for receiving assistance for Bulgaria, Hungary, Romania, Poland, and Slovakia from other European Union countries. This assistance should be both targeted, that is, aimed at farmers who are negatively affected by filling the domestic market with cheap Ukrainian products, and non-targeted so that the governments of these countries can independently decide the area of its application. However, such an approach can only be effective for a certain period, since such assistance for countries cannot occur continuously. In other words,

a mechanism should be built where all parties can find mutually beneficial conditions without relying on tools such as state support. Moreover, it should be understood that over time, other countries may begin to pursue protectionist policies. Therefore, Ukrainian diplomacy should be prepared for such a course of events and form effective mechanisms that will avoid such difficulties, or quickly solve them if they arise.

► Discussion

The impact of the Russian-Ukrainian war on the economies of other countries was studied by E. Shahini *et al.* (2022). The study focused on the impact the war has had on the agricultural fertiliser market. The authors note that there was a supply shock (due to reduced opportunities for the supply abroad), which led to an increase in inflation, food, and fertiliser prices. This is because Ukraine and Russia are the leading producers of agricultural products in the world. The export of cheap agricultural products from Ukraine is one of the reasons for the reduction of prices for agricultural products abroad. However, this also led to problems for agricultural producers in countries to which Ukrainian goods were actively exported.

The impact of Russia's full-scale invasion of Ukraine on the global economy was studied by M. Balbaa (2022). The researchers state that the invasion caused problems in international supply chains, which led to shocks in the supply of energy and trade processes in general. Such disruptions led to an increase in energy, commodity, and food prices, contributing to the rise of global inflation in many countries. This proves that any geopolitical conflicts are large-scale and have a negative impact not only directly on the parties to the conflict but also on third parties (Estrada & Koutronas, 2022). Therefore, political leaders should create conditions in which their emergence would be unlikely, and give preference to negotiations as a means of resolving disputes.

The impact of the war in Ukraine on the international economy was also studied by J. Patil-Dake (2022). He notes that military operations are causing a huge humanitarian catastrophe, due to which more than 10 million people have become displaced. As for the consequences for the global economy, this includes a decline in GDP (gross domestic product), a significant increase in inflation, problems in the context of macroeconomic policy for most countries of the world, and so on. The economic consequences were also palpable due to an increase in commodity prices. However, it is already clear that despite the significant challenges posed by the war to the global economy, its processes have adapted to the situation, allowing it to continue functioning and formulating alternative supply routes for various goods. This is also noticeable due to the gradual slowdown in inflation in most countries of the world and lower energy prices (The slowdown in..., 2023). Nevertheless, this situation is also relevant for Russia, which has also been able to adapt to such realities of functioning. Despite sanctions from Western countries, Russia was able to ensure stable conditions for the supply of all major types of products, including those used to create weapons. Although such workarounds are more difficult to implement, which makes supplies longer and more expensive (which certainly negatively affects

economic development), this is not enough to cause losses for the development of the country.

The role of Ukraine in international world security was studied by M. Bazhal & T. Koutchma (2022). Researchers note that Ukraine has significant potential to provide a considerable portion of the planet with food. This is due to the soil in this area. However, the country lacks the latest technologies to do this. If the country continues to attract or educate a larger number of skilled professionals in relevant fields and gains access to advanced agricultural technologies, it will lead to increased stability in the food supply, reduced transaction and transportation costs for certain countries, decreased loss of harvested produce, and improved food safety. In general, this will make it much more effective to combat the global problem of hunger. Notably, the country possesses its scientific potential but lacks resources (both financial and non-financial) for its development. Therefore, global assistance and support for researchers, entrepreneurs, individuals, or entire countries in this field remain necessary. Although such interaction is impossible in the current military conditions, the establishment of such interaction could take place after the end of the war.

The study conducted by M. Rabinovych (2022) on trade relations between Ukraine and the European Union countries is relevant in this context. The results obtained show that the programme of in-depth trade between the EU and Ukraine is of average effectiveness, with the main problems related to corruption, weak rule of law, and strong oligarchic influence. While trade liberalisation with the European Union increased the EU's share in Ukrainian exports and imports, Ukraine faced negative economic consequences due to a sharp transition from the markets of Russia and the Commonwealth of Independent States (CIS) to Western markets. Weaknesses in trade conditions include low exports of services to the EU and limited investment cooperation between Ukraine and the EU. Thus, the researcher concluded that the three years of implementation of the deep free trade zone showed ambiguous effectiveness and impact under the influence of complex political uncertainty and insufficiently formed rule of law. Nevertheless, she noted that Ukraine has opportunities to improve this situation in the future by enhancing the efficiency of the agreement functioning. It is to be expected that only after the end of the war and the beginning of the active restoration of Ukraine will it be possible to understand how effective trade with the countries of the European Union is, and what further actions in the context of trade policy the country should take to improve its position in the international arena.

The European Union has become one of Ukraine's most important partners during Russia's full-scale invasion,

both politically, militarily, and economically. The lifting of trade restrictions allowed for a significant increase in profits for Ukrainian producers, but at the same time it led to difficulties in cooperation with some countries of the union. However, any such issues can be resolved through the quality work of diplomats and finding common ground. It is expected that shortly an alternative will be found that will satisfy all parties to the conflict and reduce restrictions on the export of agricultural products from Ukraine.

► Conclusions

Thus, the study assessed current problems related to the liberalisation of trade relations between Ukraine and the European Union countries in the agricultural sector. It was demonstrated that the full-scale invasion of Ukraine by Russia resulted in an expansion of trade relations, specifically through the limitation of Ukraine's export opportunities. Using the analysis of statistical data on Ukraine's international trade, the dynamics of changes in the flow of goods from the country were shown and the challenges that countries may face in the future if similar trends continue were described.

The paper drew attention to the fact that Ukraine has significantly increased its dependence on exports to the European Union countries since other ways of international trade remain very limited. This increased dependence on the EU market creates both opportunities and challenges for Ukraine, with potential economic difficulties that may arise both during the war and after it ends. Although trade liberalisation plays a crucial role in promoting economic growth and international cooperation and initiatives aimed at strengthening it is often positively perceived by countries, the features of agricultural trade, and its role in national food security, often become a reason for protectionist measures by countries. Similar circumstances led to a temporary import ban by Poland, Bulgaria, Romania, and Slovakia. Ukrainian diplomacy should use all the methods available to resolve all issues with these countries and ensure further unhindered terms of trade.

An essential aspect for further investigation is the assessment of the prospects and the positive and negative effects for Ukraine due to its accession to this union. In addition, it is important to find new opportunities for the development of agriculture in the country, especially in times of war.

► Acknowledgements

None.

► Conflict of Interest

None.

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Актуальні виклики лібералізації торгівлі сільськогосподарською продукцією між Україною та ЄС

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► **Анотація.** Сільське господарство є основною спеціалізацією України на міжнародній арені, що пов'язано із географічними особливостями розміщення країни та порівняно недорогою робочою силою. Зважаючи на це, актуальним залишається знаходження можливостей для розвитку даної галузі в країні за допомогою використання усіх доступних методів. Метою статті було описати актуальні виклики, що виникають під час взаємин у розрізі торгівлі між даними суб'єктами міжнародних відносин. В рамках даної роботи вивчається те, яким чином можна покращити ситуацію в аграрному секторі за рахунок лібералізації торгівлі між Україною та Європейським Союзом. Основними методами, що використовувались під час роботи, були аналіз, прогнозування, абстрагування та дедукція. В рамках даного дослідження було оцінено тенденції торгівлі аграрною продукцією між Україною та Європейським Союзом. Визначено, що, після початку війни, дане об'єднання стало найбільшим українським торговим партнером. Це було викликано як діями з боку Європейського Союзу на підтримку України, так і блокадою морських портів, що залишила лише сухопутний шлях вивезення продукції з країни. В рамках дослідження були описані особливості зміни структури зовнішньої торгівлі між об'єднаннями в сфері аграрного сектору, а також були запропоновані окремі методи вирішення існуючих проблем у міжнародній взаємодії між країнами. Дана робота дає змогу краще зрозуміти особливості економічних відносин між Україною та країнами-членами Європейського Союзу. Крім цього, результати дослідження мають рекомендації стосовно того, яким чином можна покращити взаємостосунки між даними суб'єктами міжнародних відносин у майбутньому, а також дозволить вирішити труднощі, що досі існують між ними стосовно проблем, пов'язаних із торгівлею продукцією аграрного сектору

► **Ключові слова:** міжнародні відносини; макроекономіка; аграрний сектор; міжнародна політика; українська європейська інтеграція



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Socio-economic role and institutional capacity of family farms in the implementation of the sustainable development goals

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► **Abstract.** Rapid changes and dynamic fluctuations in modern social development determine the relevance of institutional transformations in the implementation of proclaimed sustainable development goals. In achieving this, the socio-economic role of effectively reaching the institutional potential of family farms increases. The purpose of the paper is to detail methodological judgments and develop parameters for determining the institutional potential and socio-economic role of family farms in the implementation of the United Nations sustainable development goals for the period up to 2030, considering national economic characteristics. In achieving the purpose, a systematic approach and theoretical (axiomatic, analysis and synthesis, analogies) and empirical research methods (comparison, expert assessments) were applied. The obtained results provide deeper methodological insights and characterisation of the socio-economic and institutional role of family farming in the national economy and sustainable development goals. Family farms play a creative role in maintaining a balance between meeting the population's needs and efficient utilisation of agricultural potential. The paper presents an original interpretation of the category "institutional potential" of family farms. Institutional potential can be defined as the capacity of institutions to maintain stability and conditions conducive to fulfilling their functions, influencing the behaviour of social actors. It also involves delineating and differentiating the socio-economic and institutional characteristics of family farming. The study also

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substantiates economic, social, and environmental factors affecting the development of family farming concerning their role in achieving sustainable development goals. The necessity of making managerial decisions at various levels to increase the level of sustainability of the agri-food system was noted. The practical value of the study is provided by methodological generalisations, consolidation of knowledge, and confirmation of theoretical conclusions about the features of the functioning of family farms in the context of proving the objectivity of their socio-economic role and the effectiveness of using institutional potential in the implementation of sustainable development principles

► **Keywords:** entrepreneurship; sustainable development principles; food security; institutions

► Introduction

The dynamism and non-linearity of contemporary world development necessitate the need for supporting institutions and regulatory mechanisms for societal progress. The role of economic systems in ensuring adequate living conditions, economic activities, and sectors that balance interests and limited resources of the national economy while preserving essential potential for future generations is increasing. Family farming plays a crucial role in achieving harmonious economic, social, and ecological development.

Ensuring food security is one of the primary goals of sustainable development, and family farming can provide a local consumer base with food products, reducing reliance on imports and supplies from distant regions within the country. In addition, family farms typically engage in agricultural activities on small plots, utilising conventional methods mainly, which help conserve soil resources, biodiversity, and minimise the negative environmental impact of economic activities (Guth *et al.*, 2022).

Family farming holds the potential to address important challenges related to poverty reduction, inequality, enhancing food security, and producing food items while preserving natural resources. They contribute to local employment and economic development, reducing rural-to-urban migration, especially among the youth, and strengthening the overall resilience of rural areas and their communities. Thus, C. Umstätter *et al.* (2022) discuss the social sustainability of farms.

The special relevance of this subject is underscored by the UN Decade of Family Farming (2019). This is an important initiative that promotes the diversity of family farms to achieve all the sustainable development goals. Family farms are the main actors in achieving these goals, as they comprehensively embody all the characteristics of sustainable development institutions. The Decade of Family Farming promotes the integration of three aspects of sustainable development: stimulating economic growth, social integration, and environmental protection. It encourages the participation and partnership of stakeholders, fostering their collaboration and interest in achieving the proclaimed objectives.

However, despite their importance, family farms, as a form of agrarian entity, face numerous challenges. These challenges include a lack of financial resources (Bórawski, 2008), inadequate support from governments (Bojnec *et al.*, 2022), difficulties in accessing markets, and lower competitiveness compared to large agro-industrial companies (Dung *et al.*, 2021). Hence, it becomes vital to establish and empirically outline the institutional role of family farms as a fundamental basis for shaping their development strategies. F. Becot & S. Inwood (2020) argue that family farms critically need institutional and social support, being a decisive factor in their overall development. The rapid

technological advancement and dynamic fluctuations accentuate the necessity of forming a renewed foundation for agricultural development, wherein family farms become key actors driving the development of sustainable institutions within the agricultural sector as a whole.

The purpose of the paper is to establish the socio-economic and institutional role of family farming as a conductor of initiatives, practices, and mechanisms for ensuring sustainable economic development through the achievement of the UN 2030 goals.

► Literature review

In the context of wartime conditions and prospects for post-war economic recovery in Ukraine, the relevance of fully achieving the potential of peasant farms, especially family farms, has become evident. These farms play a crucial role in ensuring local food security. The value of family farms and other small-scale forms of agriculture has been recognised, and their importance has been acknowledged in studies and publications. These achievements form the foundational basis for shaping the development concept of family farms. However, there are existing challenges.

Key scientific discussions in global academia regarding the development of family farms and defining their institutional role are related to the following aspects:

Efficiency and environmental productivity. Previous empirical studies show that farm size is inversely related to productivity – the larger the farm, the lower the production per unit of land (Dung *et al.*, 2021; Bojnec *et al.*, 2022; Guth *et al.*, 2022). This is due to changes in transaction costs associated with various operations on the farm. N. Vasylieva & J. Jr. Harvey (2020) highlight that when labour costs are a significant portion of production expenses, small farms can have substantial advantages over larger farming entities, such as self-control, motivation for meticulous work, and flexible management forms to adapt to unpredictable conditions and fluctuations. However, M. Zieliński (2019) indicates that low incomes in small farms do not incentivise their owners to modernise, increase the value of assets, and enhance the added value of production. The author established that the reason for this is that about 69% of managers of small farms do not have formal training for the profession of a farmer.

P. Bórawski (2008) evaluates the performance of small, medium-small, and medium-large farms, indicating their excessive liquidity, leading to a lack of investments and potential financial deterioration in the future. However, these farms have low debt ratios and limited development potential. Thus, empirical data show that there is no single economically optimal agricultural structure, so a variety of forms is the key to the sustainable development of the agricultural sector.

Social development and poverty reduction. In the works of C. Umstätter *et al.* (2022), Y. Gao *et al.* (2019), F. Becot & S. Inwood (2020), the development of family farms has been identified as a means to ensure broader participation in decision-making and political processes within rural communities. This can enhance their self-sufficiency and facilitate more effective solutions to human development and strategic planning issues. However, it is important to maintain a balance between small and large farms as both approaches can have their advantages and disadvantages depending on various factors such as market conditions, climate factors, etc. For instance, O. Yermakov & I. Kostetska (2022) compare the experiences of Ukraine and Poland and highlight the importance of creating socio-economic conditions for rural development, which requires adequate living standards for rural communities and substantial financial resources for their livelihoods.

Several provisions were analysed to improve the institutional environment for the development of farms, providing a necessary foundation for the development of programs and projects in this sector that can increase productivity, enhance product quality, and ensure sustainable farming practices.

Legal field. For example, the concept of a “farmer” is interpreted differently in two Polish laws. In the Bankruptcy Law, a farmer is considered a person who is not engaged in entrepreneurial activities, while the Restructuring Law does not provide a clear rationale for such a decision, implying that farmers use institutions similar to entrepreneurs to restore the solvency of their farms (Law of Poland..., 2015; Bankruptcy procedure in..., 2021).. According to M. Komarowska (2018), it would be beneficial to differentiate bankruptcy provisions for farmers, allowing them to declare bankruptcy after meeting certain requirements (such as maintaining accounting records and registering with the appropriate judicial register). This uncertainty is typical for some other EU countries, and Ukraine.

Thus, P. Colnago *et al.* (2021) discuss the need to address the shortcomings of sustainable development on family farms. It is proposed to implement strategies that differ between farms depending on the availability of resources and technologies, which confirms the need for a systematic perspective and individual decisions on resource management and the organisation of the agricultural system as a whole.

Different types of farms are characterised by varying levels of social integration. The social integration of farmers depends on the individual characteristics of the farm, as small farmers and part-time farmers show less social integration than full-time farmers (Schou *et al.*, 2022). It is suggested to extend social attachment to three components: community engagement, commitment to responsibility, and commitment to conventional production.

Radical digital transformations are a global trend in the development of the agri-food industry. Significant improvements in economic efficiency, rational use of natural resources, rapid exchange of up-to-date information, new markets, and economic opportunities in the context of modern climate change are possible with digital transformation (Borodina *et al.*, 2021; Lupenko, 2021).

The emergence of new and powerful digital technologies has considerably changed the way businesses

produce. As proved by S. Peng *et al.* (2023), factors related to environmental innovation and investment in pollution control play an important role in shaping the link between digital transformation and pollution emissions, and the impact of digital transformation on pollution reduction. Climate change adaptation is a pillar of sustainable development that requires strategic family farming planning (Junges *et al.*, 2022).

► Materials and Methods

The investigation of the socio-economic role and institutional potential of family farms in achieving sustainable development goals is multifaceted and multi-elemental. Therefore, the paper is based on a systemic approach, assuming that the studied components form a whole and are interconnected.

Contemporary social development is directly dependent on formal and informal institutions, such as norms and rules that determine the actions and behaviours of social actors. This justifies the application of institutionalism theory as the methodological foundation for the conducted study.

The definition of categories used in international research to ensure their compatibility with national concepts is based on T. Bartol's (2023) study. Specifically, the categories of “small farm” and “small-scale farm” are encountered in the research literature, and it is noted that these concepts cannot be clearly distinguished and are often used interchangeably. This paper uses the category of family farms.

The achievement of the United Nations Sustainable Development Goals for the period up to 2030 (Transforming our..., 2015) serves as a strategic reference point, wherein the agri-food sector plays a crucial role. At the tactical level of research, the UN Global Action Plan for the United Nations Decade of Family Farming 2019-2028 (2019) is considered.

Obtaining the status of a candidate for membership in the European Union Ukraine determines the expediency of investigating the European Green Deal policy (Striving to be..., 2019).

The paper uses several general theoretical research methods. Thus, an axiomatic method was applied to justify the status of the socio-economic and institutional roles of family farms in achieving sustainable development goals. Analysis and synthesis were used to determine the trends in the formation of family farms in the agricultural sector of the Ukrainian economy and the general signs of their functioning in the context of implementing the mechanism for achieving sustainable development goals. The method of analogies was used to qualify the general economic role, socio-economic and institutional effectiveness of family farms as a separate type of business entity. The paper also uses empirical research methods, such as comparison, to contrast the economic performance definitions of farms and agricultural enterprises. The generalisation method is used to summarise the main findings of this study.

Official statistical data on the socio-economic results of farmers' activities in Ukraine and the dynamics of production of various types of goods by farms in Ukraine were utilised (Agriculture of Ukraine..., 2022). Strategic

documents and concepts were used, and scientific developments and publications concerning family farming development were considered within the relevant priorities of the roadmap for the development of agri-food systems and rural areas.

► Results and Discussion

Ukraine possesses considerable potential in family farming – a sector of agricultural entrepreneurship that has become crucial in the modern development of rural areas and in ensuring food security at the national and local levels (Peculiarities of the..., 2022). The family farming model or type of organisation in Ukraine's agricultural sector has undergone institutional evolution since the early 1990s. The emergence of the family farming movement is linked to the gradual shift from collective and state forms of farming towards a market-oriented model based on private ownership of production means, including land.

Recently, starting in 2016, family farms as a variety of smallholder family-based enterprises gained some prevalence within the institutional framework of the agricultural market and rural development in Ukraine (Peculiarities of the..., 2022). The introduction of family farms into the institutional system of the agricultural market and rural territories is driven by the need to provide organisational status to a large number of household farms and personal peasant farms, which highlights the institutional potential of family farms.

The current development of family farming and the mechanisms and factors contributing to its institutionalisation should be examined within the context of several factors: wartime conditions and post-war economic recovery perspectives in Ukraine, the implementation of measures and national policies as a candidate for European Union membership, the Sustainable Development Goals for the period until 2030 (Transforming our..., 2015), the Decade of Family Farming 2019-2028 (2019), and the policies of the European Green Deal (Striving to be..., 2019). These four segments of scientific-practical knowledge form a system of rules and norms, considering the importance of preserving the traditions of the family farming movement on the European continent while strengthening the role of family farms in ensuring food security and supporting rural development.

Family farms will have distinct roles in sustainable development when considering the social-economic aspect on the one hand and the institutional aspect on the other hand. Social-economic parameters can be seen at a tactical level, mostly related to addressing current tasks and immediate challenges. The institutional level should be considered a strategic one, which concerns the formation of institutions of sustainable development in Ukraine, posing a promising task.

The priority goal of the agricultural sector for Ukraine today is to support the farming movement in wartime and post-war recovery – with the establishment of the farmer as a stable guarantor of food security. Currently, smallholder family farms not only ensure food security but also support internally displaced people, contribute to the development of territories, etc.

Ukraine is now on the path of developing family farming as a viable and scientifically confirmed model based on private ownership, individual management, and the three main components of family entrepreneurship (Spaskyi, 2019). The organisation of family farming is based on principles of social-economic inclusivity and sustainability, derived from a theoretical and analytical assessment of their current development status, projections for effective management support, and the formulation of conceptual principles for the future development of the family farming movement.

In the context of modern development, especially in wartime situations, the mechanism of self-organisation of small farms and the institution of self-sufficiency in the food supply has become more active, reflecting national traditions in the organisation of life and farming in rural areas. One of the organising elements of this process is a simple form of cooperation, based on the formation of social capital of mutual trust without formal cooperative characteristics. From an institutional and legal perspective, “family farms can be created in the form of a legal or physical entrepreneur (at the founder's discretion). In practice, family farms are a type of farm founded and operated exclusively by members of one family; they may use the labour of only their family members, without involving hired workers” (Hubeni, 2022). It is appropriate to identify different types of family farms based on institutional and organisational-economic characteristics (Table 1).

Table 1. Institutional and organisational-economic characteristics of family farms in Ukraine

Features	
Institutional	Organisational-economic
Legal entity – authorised	Founders – private individuals Size – large and medium-sized, small enterprises
Legal or physical person – establishment based on a declaration of creating a family farm	Founders – family Size – small and microenterprises

Source: Law of Ukraine No. 973-IV “On Farming Enterprise” (2003); Law of Ukraine No. 1067-IX “On Amendments to the Law of Ukraine “On Family Farming Regarding the Stimulation of the Creation and Operation of Family Farms” (2016)

The formalisation of the status of a peasant farm means obtaining the corresponding organisational form, which is institutionally regulated according to the legislation. Firstly, status – a legal or physical person defined by family farms, and other small forms, belong to the 4th group of unified taxpayers under the simplified system.

Secondly, the form of organisational activity includes personal peasant farms, family farms, and farm households.

Institutionally, a farmer is an owner, and a farm is a form of implementing one's economic and entrepreneurial skills in the market mechanism to achieve socio-economic benefits, including obtaining entrepreneurial

profit. The acquisition of the status of a farmer, as a subject of entrepreneurial activity in the form of a farm (legal entity or individual entrepreneur), is based on ensuring compliance with legislatively defined criteria, which include the employment of household members, specifics of engaging hired labour, the area of agricultural land, and the size of the income earned (Lupenko, 2021).

A family farmer is the owner of their economic activity and the head of entrepreneurial concepts through personal work and cooperation with members of their own family. However, small farm owners are increasingly under pressure due to the transformation taking place in the global food system and supply chains. Large processors, wholesalers, and supermarket chains are increasing their purchasing power concentration, using strict standards, both public and private, and seeking greater vertical integration. This leads to more difficult conditions of competition and pressure on small farmers. To ensure the viability of small-scale farming, innovation, and protection from biased competition in the market and its unfavourable conditions are necessary.

The agri-food business plays an active role in the implementation of the concept of sustainable development, as the projected outcome to be achieved through progress within the UN's Sustainable Development Goals for the period up to 2030 (Transforming our..., 2015) includes the expansion of capabilities to overcome hunger, which directly relates to family farmers. This issue is not new, as approaches to its resolution have evolved throughout human history, as the modern economy of human livelihood requires sustainable development across all areas of economic activity. Agricultural activity correlates with the development of rural areas. However, the problem of hunger is becoming more and more acute due to the increase in the population on Earth, urbanisation of territories, man-made problems, and depletion of resources. Economical use of agricultural resources is one of the main global priorities for sustainable development. However, there are certain challenges and obstacles to farm development, such as high initial investment costs and instability in the agri-food market. Therefore, to ensure the sustainable development of agriculture, favourable conditions for the development of farming are needed, such as state support and the creation of favourable conditions for interaction between farmers and other market players.

In the world practice of small agricultural business development, family farms are active, systematic guides to the practices of ensuring food supply to the population and sustainable development of rural areas. However,

family farms are organisationally, economically, and institutionally limited in their development prospects. This is a simple system for organising business processes, which does not always positively correlate with their sustainability. The form of complication the investigated system can be cooperation as a way of organising agriculture.

As noted by T. (Ch.) Gong *et al.* (2019), R. Rudnicki *et al.* (2023), and family farms that are not members of cooperatives demonstrate the lowest technical efficiency and the largest gap between observed and potential production. The authors suggest that membership in a cooperative may allow farmers to learn more advanced technologies and take advantage of methods to increase productivity.

To enable small peasant farms to rise from the local or regional level to the national and global levels, state support and the creation of conditions for cooperative development are necessary. In Ukraine, this aspect of the problem is addressed in a fragmented manner, stemming from the nature of social capital regarding the organisation of economic interactions in rural areas. Peasants lack the motivation to join formalised economic coalitions, including cooperatives (Shpykuliak & Bilokinna, 2019), not only in the agricultural sector.

It is essential to emphasise that stimulating employment through support for the development of peasant farms, such as forming family farms and their integration into cooperatives, should become a priority. Such a range of events will gradually address many problems of wartime and provide an impulse for post-war recovery in rural areas. There are also prospects for the development of family farms with Ukraine acquiring the status of a candidate member of the European Union. Expected areas for the development of the investigated subjects in the agricultural economy can be outlined based on a scenario approach (Gaviglio *et al.*, 2019; Lopatynskyi *et al.*, 2021).

A retrospective analysis of the development of family farming in Ukraine indicates certain inconsistencies in the role and value of these farms compared to the global tradition. Family farms have their roots in peasant yards and households that have played and continue to play a role in self-sufficiency in food production.

Amid wartime conditions and considering the prospects of post-war recovery in Ukraine, including rural areas, the institutional and organizational-economic roles of family farms, among others, have changed. This type of farming increasingly becomes a driver in ensuring economic prosperity in rural areas and the welfare of citizens, families, and farmers. The importance of farms in the development of the agricultural sector is considered below (Table 2).

Table 2. Structural assessments of socio-economic performance of farms in Ukraine

Farms, %	Year						
	2015	2016	2017	2018	2019	2020	2021
in the total number of operating agricultural enterprises	71.2	70.6	74.9	73.1	79.1	65.6	90.2
in the total land area of agricultural enterprises and citizens – farmland	11.9	12.2	12.5	14.1	14.2	13.8	13.2
– arable land	13.6	13.8	14.3	15.2	15.3	16.6	18.6
in the total number of employed population in the agricultural sector	3.3	3.4	3.4	2.9	3.0	2.7	2.6
in the production of agricultural products (all categories) – total	7.9	8.7	8.7	10.9	11.6	10.7	12.7
– crop production	10.4	11.2	11.3	13.3	14.1	13.2	14.9
– livestock products	1.9	2.0	2.0	2.1	2.3	2.5	2.9

Source: completed by the authors based on Agriculture of Ukraine for 2021 (2022)

According to statistics, farms occupy a considerable share in the performance of agricultural enterprises in Ukraine. In particular, they account for a significant share of agricultural production and provide jobs for the local population. Notably, family farms often specialise in cultivating niche crops, allowing them to diversify production and ensure high-quality products.

The production structure of family farms can change depending on shifts in market conditions and demand for different types of products (Fig. 1). Therefore, to ensure the sustainable development of a family farm, it is essential to have a flexible production strategy that enables adaptation to changing market conditions and demand for various products.

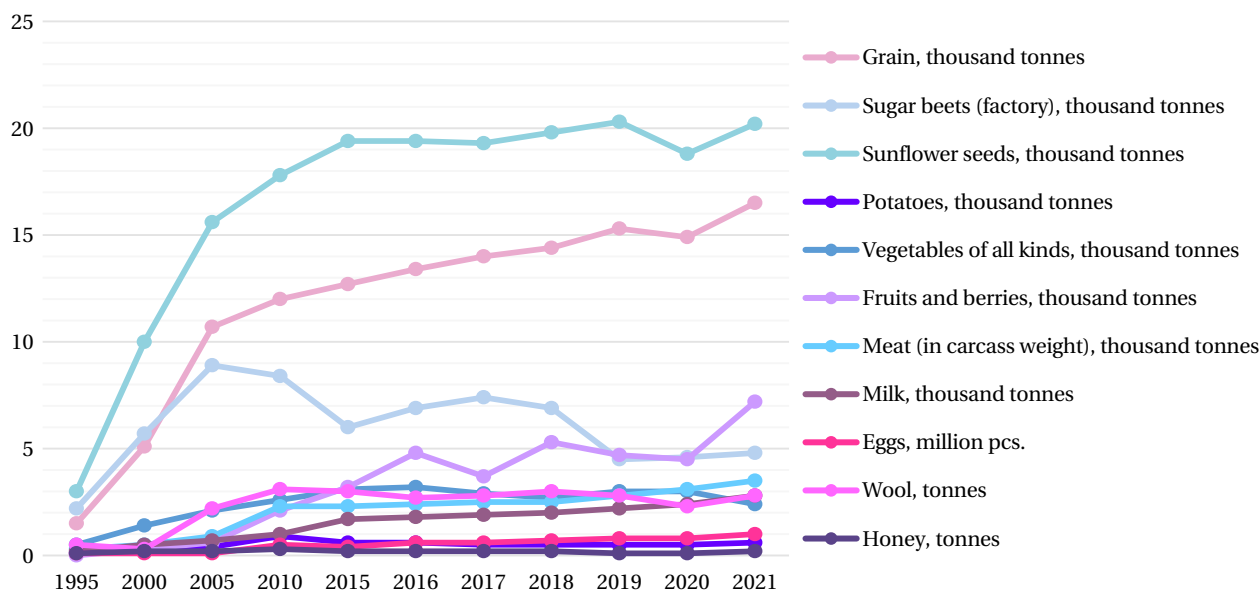


Figure 1. Dynamics of production of various types of goods by farms in Ukraine

Source: completed by the authors based on Agriculture of Ukraine for 2021 (2022)

The analysis of the production structure dynamics of farms in Ukraine from 1995 to 2021 reveals that they engage in the production of a wide range of products, including sunflower seeds, cereals, vegetables, fruits, milk, and meat. The dynamics of increasing production of sunflower seeds, grain, fruits, and berries show a clear dependence on general trends in the agricultural market. However, there are also regional features and imbalances in the development of certain types of products, depending on climatic and geographical conditions, and several institutional factors. In the world practice of small agricultural business development, family farms are active systematic guides to the practices of guaranteeing food supply, employment, and sustainable rural development. According to the definition of the UN institutions, particularly the Food and Agriculture Organization of the United Nations (FAO), family farming should play a central role in their focus on expanding support to achieve the Sustainable Development Goals by 2030 (Transforming our..., 2015). The Global Initiative for the Decade of Family Farming 2019-2028 (2019) is constructively integrated into the mechanism for implementing actions to achieve the Sustainable Development Goals by 2030. In the context of functions inherent to family farms, they possess the institutional capability to purposefully implement sustainability initiatives in rural areas. Compared to other forms of farming, family farmers act exclusively and creatively.

They demonstrate the current institutional and organisational-economic capacity "to provide innovative solutions to social, ecological, and economic challenges, such as preserving biodiversity, landscapes, cultural heritage, and local traditions of producing nutritious and cultural food" (United Nations Decade..., 2019). It is worth noting that family farms, in addition to the economic mission, perform a social one, especially this aspect is manifested in Ukraine in modern conditions, wartime conditions. For small-scale farming, priority tasks include ensuring food security for the farmer, their family, and the local community, beyond solely pursuing profit. The economic aspect has somewhat receded, while the social mission of these farms lies in their abilities to implement practices that support employment, foster territorial development, and offer opportunities to generate income through entrepreneurial activities.

Therefore, family farms contribute to sustainability and inclusivity in the economic, ecological, and social spheres of rural development. Thus, they serve as a starting point, a factor in promoting food availability and preserving rural resources for future generations through a balanced alignment of benefits and costs. Therefore, the socio-economic role and institutional value of farms should be justified by the following components of sustainable development (Fig. 2).

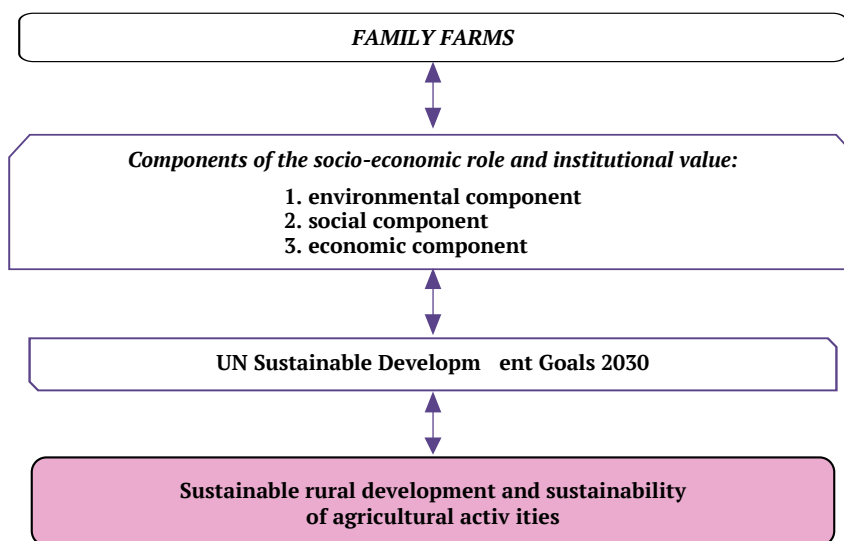


Figure 2. Concept of a scheme for structuring the components of the socio-economic role and institutional importance of family farms in the implementation of the sustainable development goals

Source: compiled based on the analysis of literary sources and generalisations of authors

1. Environmental component. Family farms are of great institutional importance for maintaining environmentally sustainable agroecosystems in the long term. According to the concept of similarity to nature, an agricultural system is environmentally sustainable if it protects natural resources such as biodiversity, water, soil, and air quality provided by the ecosystem. With this in mind, family farms can play a key role in conserving these resources, as they often focus on following traditional farming practices that promote biodiversity conservation and ensure soil and water quality. In addition, family farmers usually have a greater interest in preserving natural resources, as they depend on them, they use them for their lives and work, which contributes to the formation of sustainable environmental practices and the maintenance of the natural environment. Thus, family farms can play a crucial role in ensuring sustainable agricultural development and maintaining environmentally sustainable agroecosystems.

2. Social component. In recent years, more attention has been paid to the institutional importance of family farms, in particular their role in preserving the social heritage of territories, cultures, and traditions. However, less attention is paid to assessing the role of family farms in social sustainability compared to environmental and economic sustainability. This may be because the perception of social issues is heterogeneous and causes a lack of conceptual clarity, and depends on the local context and socio-political influences. Family farms can play a key role in maintaining the social sustainability of territories by ensuring the development of local economic structures and promoting employment in rural areas. The multifunctional role played by agriculture makes it necessary to restore the role of family farms in local economic structures and develop small farms to ensure the social sustainability of territories.

3. Economic component. The relationship between consumers and farmers who maintain short supply chains is based on mutual trust provided by direct contact be-

tween them. This strengthens links between agriculture and local communities, which can have a positive impact on the sustainability of rural development. Moreover, short supply chains reduce the number of intermediate links in the food supply system and losses in the transportation and storage of products, which contributes to more sustainable economic development and ecosystem sustainability.

The multi-functional nature of the farm is another factor that affects its resilience to economic instability and reveals its importance in achieving the economic goals of sustainable development. According to this concept, the importance of family farms is enhanced through the development of diversification in their activities, particularly the production of non-agricultural products and services such as agritourism, food establishments, boarding houses, and educational farms. This establishes appropriate parameters for evaluating their multi-functionality.

Therefore, it is crucial to recognise the substantial social-economic role and value of various types of family farming, organisational-legal forms, and characteristics, including their sizes, in increasing employment rates, ensuring food security, and achieving sustainable development goals in Ukraine. However, the application and assessment of the category "institutional potential" are not straightforward. The application of the theory of institutionalism requires the establishment of an institutional framework in research. Hence, it is proposed to define the concept of "institutional potential" of family farms, which should be considered as one of the research outcomes.

As M.R. Bhagavan & I. Virgin (2004) note, although the institutional potential is often mentioned in the context of development and is well understood in general terms, it can be challenging to define precisely and measure with specific terms and methods. In addition, institutional capacity has two dimensions: internal organisational features and external institutional context (Shyian *et al*, 2023).

From the perspective of new economic theory, in a methodological aspect, institutional potential can be viewed as opportunities and resources related to organisation and achieved through a set of rules, norms, values, procedures, and structures that shape the behaviour of the agents and determine their properties. The institutional potential may depend on the institutional culture, customs, and practices that are formed based on social interactions, social norms, and influence the participants of the organisation. Furthermore, it is determined through the level of trust in the institution and the level of its legitimacy in the eyes of society and the public. These factors can affect an organisation's performance and ability to innovate, develop, and adapt to changing environments. This may involve the presence of monitoring and evaluation systems, the ability to address issues promptly and effectively, and the capacity for collaboration with other institutions and stakeholders.

In the applied context, the institutional potential of family farms is defined as a set of institutional capabilities of an economic structure. They are acquired within the organisational-legal framework, following the fundamental principles of economic, social, and political participation of the subject in the practices of achieving specific goals (including sustainable development). It is also related to ensuring competitiveness in the market through appropriate social capital.

As for the assessment of the level of institutional potential, there is no unambiguity. For instance, P.E. Prasetyo *et al.* (2022) state that there is a need to remove institutional barriers to enhance the efficiency and productivity of socio-cultural-economic systems. The development of institutional potential falls under the theory of resource dependence, which is relevant for Ukrainian family farms. Investment in high-quality human capital and the development of the latest technologies are important for institutional potential.

Addressing the problematic issues of developing the institutional potential of family farms is challenging. In their discussion, N. Chandran (2020) notes that the free market development model with limited government has become an ecological and social catastrophe for developing countries. They state that sustainable and equitable development is only possible with the active participation of a strong central government capable of managing the economy, protecting the environment, and prioritising the basic needs of its people. On the other hand, A. Cid & A.M. Lerner (2023) emphasise the crucial role of the local level, as local self-government bodies are key participants in climate change adaptation and are responsible for conveying risk information to vulnerable population groups and can scale up grassroots initiatives in adaptation planning. The authors also add self-development and self-organisation of the institutional potential of family farms to the key participants.

In the applied aspect, the effective implementation of the institutional potential of family farms is important. An alternative approach is sustainable intensification, which refers to increasing resource productivity in the agricultural sector without harming the natural environment. In the context of the EU, J. Staniszewski *et al.* (2023) note that sustainable intensification, taking into account the

dynamic perspective, regional structural features, and social dimension of sustainability, has not yet occurred. This increases the institutional role of farms, and Ukraine is no exception. Although alternative assessments in Ukraine show powerful development of holding-type agrarian enterprises, it has not been thoroughly studied.

The obtained results indicate the necessity of increasing the effectiveness and efficiency of management decisions at various levels, considering endogenous conditions, exogenous factors, and the institutional potential of the country, specific regions, territorial units, and family farms concerning the components of sustainable development. Therefore, the implementation of proposed measures approaches, and mechanisms to ensure sustainable development for achieving UN 2030 goals through economic, social, and environmental components is considered pivotal.

► Conclusions

Family farms play a crucial role in achieving sustainable development goals, which will help ensure economic and social growth in rural areas, reduce poverty and inequality, guarantee food security, and preserve natural resources, contributing to sustainable development both at the national and global levels. However, for family farms to reach their potential, they require proper support from the government and international organisations, and the development of relevant infrastructure, including access to markets and financial resources. Ukraine has considerable potential in family farming, an agricultural entrepreneurial sector that has become increasingly important in modern rural development and the formation of food security guarantees at the national and local levels. To enhance the role of family farms in promoting sustainable rural development, several measures are needed: the establishment of new institutional support structures, government and regional programmes supporting specific production types, and the organisation of infrastructure for the storage and processing of agricultural products, etc.

The scientific originality is determined by the deepening of methodological assessments and the development of elements for defining the institutional potential and the socio-economic role of family farms in achieving the UN Sustainable Development Goals for the period up to 2030, considering national features of economic activities.

The examination of the prospects for the development of family farms in the context of the European Green Deal policy represents a task for further research in this area. Family farms, considering that agricultural production has always been and will remain a foundation for national well-being, play a substantial role in shaping the "green" economy and will be influenced by the "green" course. The "greening" of the economic activities of family farmers makes sense and holds value in achieving the principles of sustainable development, as this type of economic entity globally determines food security and trends in territorial development.

The details and elements required for ensuring the sustainability of family farms in the country serve as a means to promote the synergistic effect of correlating institutional transformation and the green course, aiming at achieving balanced development: economic growth, environmental preservation, and favourable social progress.

Gradual approaches (iterations) will be implemented through small steps, starting from individual initiatives, family farms, and extending to the national economic system, following an institutionally driven backward motion.

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►Conflict of Interest

None.

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Соціально-економічна роль та інституційний потенціал сімейних фермерських господарств у реалізації цілей сталого розвитку

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► **Анотація.** Стрімкі зміни та динамічні флуктуації сучасного суспільного розвитку зумовлюють актуальність інституційних трансформацій у реалізації проголошених цілей сталого розвитку. У досягненні цього зростає соціально-економічна роль ефективної реалізації інституційного потенціалу сімейних фермерських господарств. Мета статті полягала у деталізації методологічних суджень і розробці параметрів визначення інституційного потенціалу та соціально-економічної ролі сімейних фермерських господарств у реалізації Цілей сталого розвитку Організації Об'єднаних Націй на період до 2030 року з урахуванням національних особливостей господарювання. У процесі розкриття проблеми застосовано системний підхід і загальнонаукові теоретичні (аксіоматичний, аналіз і синтез, аналогії) та загальнонаукові емпіричні методи дослідження (порівняння, експертних оцінок). Отримані результати полягають у поглибленні методичних оцінок і елементів визначення теоретико-методологічних характеристик соціально-економічної й інституційної ролі сімейних фермерських господарств у національній економіці та у реалізації Цілей сталого розвитку. Фермерські господарства сімейного типу є креативними у забезпеченні балансу в задоволенні потреб населення й ощадливому використанні потенціалу сільського господарства. Подано авторське трактування категорії «інституційний потенціал» сімейних фермерських господарств. Інституційний потенціал може визначатися: як спроможність інституцій до стабільності та збереження умов, що забезпечують реалізацію їх функцій, які формують поведінку соціальних акторів; полягати у окресленні та розмежуванні соціально-економічні та інституційні характеристики сімейних фермерських господарств. Обґрунтовані економічні, соціальні та екологічні фактори розвитку сімейних фермерських господарств у контексті їхньої ролі у реалізації Цілей сталого розвитку. Зазначена необхідність прийняття управлінських рішень різних рівнів з метою підвищення рівня сталості розвитку агропродовольчої системи. Практичну цінність досліджень становлять методологічні узагальнення, закріплення знань і підтвердження теоретичних висновків про особливості функціонування сімейних фермерських господарств у контексті доведення об'єктивності їх соціально-економічної ролі та ефективності використання інституційного потенціалу у реалізації засад сталого розвитку

► **Ключові слова:** підприємництво; засади сталого розвитку; продовольче забезпечення; інституції



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Foreign trade in agri-food products between Ukraine and the United Kingdom of Great Britain

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► **Abstract.** Among the most important regional allies of Ukraine, it is worth highlighting the United Kingdom, which first as an EU member state, and then, from 2021, independently, within the framework of a bilateral agreement, contributes in every possible way to the development of free trade, in particular, agricultural, between the two countries. This is evidenced by the constantly growing volumes of exports and imports of agricultural raw materials and food products for Ukraine and the United Kingdom until 2022. The purpose of the study is to examine the dynamics of foreign trade in agricultural and food products between Ukraine and the United Kingdom, including the relationship between the development of mutual trade and the liberalisation of its conditions. Generalisation, analysis, and synthesis, comprehensive assessment, historical, graphic, and tabular methods were used. The general socio-economic characteristics of the UK are given, considering its withdrawal from the European Union and focusing on the current state of trade in agri-food products on the international market. The quantitative and cost indicators of foreign trade in agri-food products between Ukraine and the United Kingdom of Great Britain and Northern Ireland since 2012 are analysed, the characteristic features of the commodity structure of export sales and import purchases of Ukraine are considered, including in 2022, the prospects for agricultural trade between the parties in the near future are assessed, in particular, areas for deepening foreign economic cooperation between Ukraine and the United Kingdom are proposed, and groups of products that will remain a priority even in war conditions, considering the needs of internal food markets of both countries are identified. The provisions of the study are aimed at providing information on the possibilities of developing trade in agricultural and food products with the UK for Ukrainian food sector enterprises and public authorities that ensure foreign policy and international cooperation

► **Keywords:** international cooperation; food; important partner; liberalisation; development; transformation

► Introduction

For Ukraine, even in the context of a constant increase in food exports, its diversification in terms of product range and geographical coverage was relevant. Therefore, any initiatives under agreements on the creation of free trade zones have always been perceived as another step towards expanding foreign sales markets and facilitating access to them for Ukrainian enterprises. The full-scale Russian military aggression has put the country's agri-food sector in front of unprecedented challenges that have seriously changed the conditions for the functioning of internal and foreign markets for agricultural products. Moreover, the negative consequences of war are felt at all stages of the product cycle - from production to sales to end users. Against this background, financial and economic

assistance from European partners greatly facilitates the passage of such a difficult period.

The United Kingdom is one of the most economically developed countries in Europe. In addition, it is a large-capacity consumer market with a high purchasing power of the population, which in general has more than 67 million people (Statistical Yearbook, 2022). The United Kingdom is also one of the key players in the pan - European food market in all fundamental parameters-production, consumption, and international trade (Agricultural Outlook 2022-2031, 2022). For their own needs, the country's agricultural sector and processing industry provide more than half of the current consumption volume (Agriculture in the..., 2022; Mayho *et al.*, 2023). On

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the other hand, this country has a negative balance of foreign agricultural trade, according to the latest available data in 2021, its exports of agri-food products amounted to 27 billion USD while imports reached 62 billion USD (Crops and livestock..., 2023). Thus, food imports have a substantial impact on the UK internal market. In this context, it is important to examine the export opportunities of Ukrainian agri-food exports through the identification of products that are in demand among British consumers, but the volume of its sales by Ukrainian enterprises to the United Kingdom is still insufficient.

The specific features of the functioning of the international market of agricultural products at the present stage are highlighted in monographic publications of Ukrainian agricultural researchers, in particular, Yu. Lupenko *et al.* (2015), with a focus on their scale on the global and regional scales. General characteristics of Ukraine's foreign trade in agri-food products, including its individual types, are given in the study by Ya. Hadzalo & Yu. Luzan (2021), also highlighted the urgent need to improve the state industry policy.

K. Makarchuk & M. Shuba (2020) in their publication reviewed trade in all goods and services between the parties, highlighting the special prospects for Ukraine's agri-food exports even after the UK leaves the European Union. M. Ellington *et al.* (2022) explore the economic implications for the United Kingdom no longer an EU member and the uncertainties that have emerged since the coronavirus pandemic, using two different mathematical models. R. Vriezen *et al.* (2022) develop the reasons and benefits of a new trend in the UK market, which is the desire of local consumers to pay extra for the ability to track a specific product.

However, on the other hand, in this context (the United Kingdom..., 2023) discusses the actual increase in food prices in the country, which forces buyers to resort to austerity, although, in the healthy food segments and some others, the potential for import supplies remains inexhaustible. Therewith, the detail of the commodity structure of Ukrainian exports and British imports requires additional coverage, which determines the relevance of this study.

The purpose of the study is to determine the priorities for the development of trade in agri-food products between Ukraine and the United Kingdom during the war period and after its end.

A comprehensive study of agricultural exports and imports of Ukraine should consider the trends of 2021 inclusive and new aspects of trade, starting from 2022. to assess the future potential of bilateral cooperation, the current features of the food markets of Ukraine and the United Kingdom, which are discussed in this publication, are of key importance.

► Materials and Methods

In the course of investigating the foreign trade in agri-food products between Ukraine and the United Kingdom, a set of appropriate methods was used. In particular, the generalisation method is used to characterise the UK's foreign trade in food, including its commodity and geographical structure, and the dependence of the internal market on import supplies. Methods of analysis and synthesis were used to comprehensively cover the indicators of foreign

trade between the two countries. The method of complex estimation was used to compare key parameters of mutual food trade in 2022 and previous periods. The historical method is used to describe the internal European processes that preceded the UK's exit from the European Union and its signing of a free trade agreement with Ukraine and other states of the continent. The forecasting method is implemented for proposals and assumptions regarding the development of exports and imports of agri-food products of Ukraine with the United Kingdom in the short term. The graphical and tabular methods are practically implemented to optimise and visually display digital research results.

The general structure of the study includes three main stages, outlined sequentially. The 1st stage is a description of the economic state of Great Britain and its foreign trade in agricultural products, that is, a description of the general socio-economic situation in the country, highlighting the balance between agricultural exports and imports, focusing on product groups, the cost of purchases abroad is the highest. The 2nd stage is an analysis of trade in agri-food products between Ukraine and the United Kingdom in recent years, namely, the presentation of final cost indicators, a study of the commodity structure of exports and imports, highlighting the main changes that occurred in 2022 under the influence of the war and its accompanying consequences for both states. The 3rd stage is an assessment of further prospects for cooperation in the agri-food sector, including systematic interpretation of available statistical data, analytical information and operational monitoring of the international market of agricultural products and the food industry. The analysis was conducted to predict the development of mutual sectoral trade between the parties, optimise its structure, minimise the associated negative impact of war, and achieve the economic interests of all market participants.

The information base of this scientific research was publications of Ukrainian and foreign experts, data from the state statistics service of Ukraine, the state customs service of Ukraine, thematic materials of the Food and Agriculture Organisation of the United Nations (FAO), the International Trade Centre (ITC), studies of the analytical and statistical nature of the Foreign Service of the US Department of Agriculture (USDA), author's developments, generalisations, conclusions, and assessments.

► Results and Discussion

The UK's agricultural trade did not have a synchronous development. If exports for the period of 2015-2021 remained at a stable level of 26-27 billion USD, food imports by this country, in general, increased from 57 billion USD in 2015 up to 62 billion USD according to 2021 data (Crops and livestock..., 2023). It is necessary to consider the fact that the United Kingdom is conventionally included in the list of the ten largest food-importing countries. In 2021, the United Kingdom ranked seventh in it, located between Japan (agricultural imports worth about 63 billion USD) and Italy (49 billion USD).

Among the types of agri-food products purchased abroad, this country spends the most money on beverages, fruit and berry products, meat and offal, finished grain products, and vegetables. According to the results of 2021, these product groups accounted for approximately 47% of

the total value of UK agricultural imports (Table 1). There-with, with some exceptions, the main trading partners

and suppliers of food for it are the EU countries (List of supplying..., 2023).

Table 1. Commodity structure of imports of agri-food products by the UK in 2019-2021 (main groups), billion USD

Product group	2019	2020	2021
<i>Beverages</i>	8	8	9
<i>Fruits and berries</i>	6	6	6
<i>Meat products</i>	5	5	5
<i>Finished grain products</i>	5	5	5
<i>Vegetables</i>	4	4	4

Source: compiled by the author based on List of supplying markets (2023)

In the context of the United Kingdom's foreign trade prospects, its withdrawal from the European Union was important, which was scheduled to take place on January 31, 2020, according to the results of a referendum held back in 2016. After that, from February 1 to December 31, 2020, the transition period lasted, during which the UK remained in the common customs and trade space with the EU (Britain and Turkey..., 2020). By mutual agreement of the parties, it could be extended for another 1-2 years. For Ukraine in this case, the key point was the functioning of the free trade zone, because the UK withdrew from all the agreements that were concluded on behalf of the European Union during its membership in it, that is, the Association Agreement no longer applied to it. Thus, before the end of the transition period, the British had to negotiate new trade agreements with the European Union, the United States, and several other countries. As a result of rather complex and lengthy negotiations, a Free Trade Agreement between the UK and the EU was signed at the end of 2020 (Britain and Turkey..., 2020). Until the end of 2020, the preliminary conditions for foreign trade between Ukraine and the United Kingdom were still in effect. However, then in October, the parties signed an agreement on political cooperation, free trade, and partnership, which was ratified by the Verkhovna Rada in December. On January 1, 2021, the Free Trade Agreement between Ukraine and the United Kingdom entered into force. According to the conditions set out in it, 98% of products from Ukraine have free access to the British market, and another 2% of commodity items were to be liberalised from 2023 (The Free Trade..., 2021).

However, a full-scale war affected the overall situation, and at the end of April 2022, the UK became the first country to abolish duties and quotas on all goods imported from Ukraine (Great Britain cancelled..., 2022). Since May 4, 2022, both countries have fixed the abolition of import duties and tariff quotas in mutual trade by signing a corresponding agreement. It will be valid for 12 months but can be extended by agreement. According to the latest available information, the British government has extended temporary liberalisation measures for Ukraine until the beginning of 2024 (Ukraine and Great Britain..., 2022). In general, there is a situation where the two countries, starting in 2020, are undergoing a constant process of transformation both about each other and about the fundamental foundations of the functioning of their economy. It is substantial that in Ukraine and the UK, transformation meas-

ures were caused not only by planned but also by forced reasons (the COVID-19 pandemic, and Russian military aggression). Judging by the fact that at the beginning of 2023, socio-political circumstances in the world and Europe are unstable, affecting the economic environment, the transition period for Ukrainians and the British may well drag on for a long time (Dalampira & Nastis, 2020).

The UK's exit from the European Union was perceived sceptically by many experts, but even despite the impact of the coronavirus pandemic and the global consequences of the war in Ukraine the British economy turned out to be more stable and strong than expected (Yurchyshyn, 2022; Ellington *et al.*, 2022; UK economy rebounds..., 2023).

The dynamics of trade in agri-food products between Ukraine and the UK up to and including 2021, against the background of general growth, there were declines in exports and imports in 2014-2016, caused by many negative events that led, among other things, to internal socio-economic instability in Ukraine, which also worsened the situation with agricultural trade in general during this period. Since 2017, Ukraine's agricultural trade with the United Kingdom has grown, and in 2021, the highest export (566 million USD) and import (147 million USD) figures were achieved. However, in 2022, under the influence of the war, mutual trade between the parties decreased by 54%, especially noticeable was the decline in Ukrainian exports (Fig. 1).

Thus, the beginning of the functioning of the Free Trade Zone between the parties in 2021 was an impetus for accelerating the growth rate of mutual food trade, but how long this effect would last in the longer term, now, due to Russian military aggression, it is difficult to answer. There-with, there were no changes in the commodity structure of exports and imports for Ukraine, only their volumes increased. In any case, the existing conditions of liberalisation allow expecting the maintenance of well-established ties between Ukrainian and British partner companies, and export and import indicators at the level of 2022, which are acceptable in the context of retrospective dynamics.

In 2021, the basis of agri-food exports from Ukraine to the UK were oils and fats (namely, sunflower oil), seeds and fruits of oilseeds (mainly rapeseed), and cereals (mainly corn), which formed 86% of its value. Additionally, the export of other products, in particular, confectionery products made from sugar, sunflower cake, and pasta is also notable. In 2021, alcoholic and non-alcoholic beverages were imported from the United Kingdom to Ukraine

(ethyl alcohol less than 80% vol.), fish and crustaceans (frozen fish), and various food products, the total share of

which was 88% in its value (Total volume of..., 2023; Countries by commodity structure..., 2023).

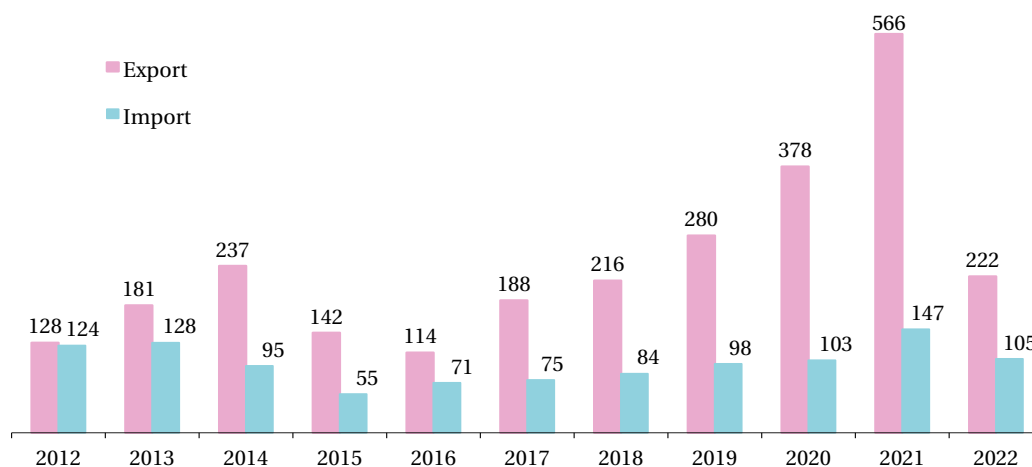


Figure 1. Trade in agri-food products between Ukraine and the United Kingdom, million USD

Source: compiled by the author based on Countries by commodity structure of foreign trade (2023); Total volume of import and export by country (2023)

In 2022, the commodity structure of export supplies from Ukraine to the UK, in general, did not change: oilseeds, oils, and cereals together provided 78% of revenues for their companies. In addition, sales of food industry

residues and waste and meat products were also substantial (Fig. 2). The basis of imports in 2022 was again beverages, fish and seafood, and various food products, which in total accounted for almost 90 % (Fig. 3).

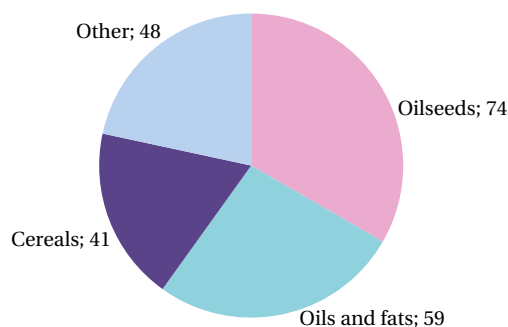


Figure 2. Commodity structure of agricultural exports from Ukraine to the UK in 2022, million USD

Source: compiled by the author based on Countries by commodity structure of foreign trade (2023); Total volume of import and export by country (2023)

For Ukraine, food trade with representatives of the British Isles plays an extremely important, though not decisive, role in the global context (Makarchuk & Shuba, 2020). In the general list of the largest buyers of Ukrainian agricultural products in 2022, the United Kingdom was outside the top twenty. Therewith, in the rating of the main suppliers of agricultural and food industry products to Ukraine, Great Britain took a position in the middle of the second ten, in fact, the fourteenth. In 2021, the positions of the United Kingdom in the corresponding table of ranks were largely similar: in exports – 14th place, in imports – 15th place (Countries by commodity structure..., 2023; Total volume of..., 2023).

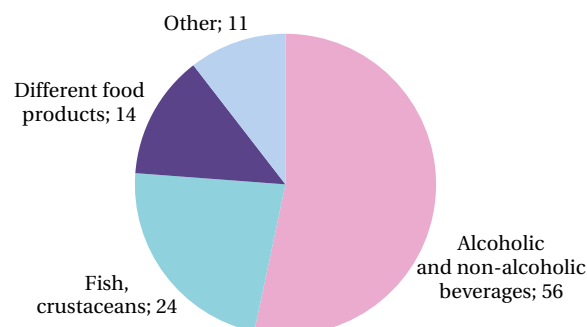


Figure 3. Commodity structure of agricultural products imported to Ukraine from the UK in 2022, million USD

Source: compiled by the author based on Countries by commodity structure of foreign trade (2023); Total volume of import and export by country (2023)

An integrated approach is crucial for the development of foreign trade between the two countries, including food (Hadzalo & Luzan, 2021). That is, for export, it is necessary to compare the corresponding potential of Ukraine, the objective needs of the UK in imports, current consumer trends in this country, and the purchasing power of the population (Lupenko *et al.*, 2015). This list of parameters will already determine the characteristics of the food market of Ukraine and the export capabilities of specialised enterprises in the United Kingdom to assess possible imports (Hrubá *et al.*, 2021).

In particular, the UK internal food market is currently undergoing substantial changes. In 2023, there are crisis

phenomena in consumer spending, which are the expected global consequences of the COVID-19 pandemic (Ahn & Steinbach, 2021) in the country's food sector, forming a key problem (the United Kingdom..., 2023). The rate of price growth is the fastest in the last 30 years, and the reasons for this are the war in Ukraine, certain shortcomings in supply chains, and an increase in the cost of energy carriers. According to the observations of the British Retail Consortium, food inflation reached its highest level in 45 years, exceeding 12%. To understand the capacity of the UK's internal food market, local experts cite a figure of 260 billion USD as of 2021 (Inflation in Britain, 2022). As expected, based on the current situation, discount supermarkets will become the growing trading channel in 2023, attracting those consumers who are trying to save money on food. Instead, the UK's public facilities (cafes, restaurants, etc.) will experience a decline in demand as consumers eat less outside the home without buying premium food in stores. Therewith, the British food market continues to provide ample opportunities for deliveries from outside the country in the segment of products that are focused on specific consumers, for example, healthy food, wines, sauces, fruits, nuts, and juices (United Kingdom..., 2023).

Another trend that is also becoming global in the UK market is the growing interest in traceability, that is, people want to have more information at all stages of the movement of goods - from the manufacturer to the consumer, including intermediate links for storage, refinement, and processing of products, delivery, and its environmental friendliness, avoiding the use of prohibited substances and genetically modified organisms, etc. (Aldrighetti *et al.*, 2021). Tracking is becoming all the more important as an effective tool for confirming food safety and optimising logistics processes. Implementing, using, and maintaining the proper functioning of such multi-purpose monitoring systems requires certain additional costs. Therefore, manufacturers, intermediaries, retailers, or suppliers try to understand the effectiveness of these innovations through the willingness of consumers to pay specifically for tracked products (Vriezen *et al.*, 2022).

Given the current commodity structure of Ukraine's exports to the UK and the key groups of agri-food imports of this country, poultry meat should be considered potentially the most realistic position for increasing sales, because so far Ukraine occupies within 1% of British external purchases (Kryvenko, 2022; Crops and livestock..., 2023). According to 2021-2022 data on grain and oilseeds, Ukraine is one of the main suppliers for the UK, while simultaneously taking first place in the geographical structure of its imports of sunflower oil. As for the prospects for imports to Ukraine from the United Kingdom, it is almost impossible to replace the existing structure with the predominance of branded strong alcohol and frozen fish since there is still a strong dependence on their supplies from abroad, and Ukraine's supply of these products is now practically absent (Crops and livestock..., 2023).

In a full-scale war, any forecasts are characterised by a low probability, especially for the medium and long term, so it is more appropriate to consider the period of the next 1-2 years for estimates for the future (Lupenko *et al.*, 2015; Hadzalo & Luzan, 2021). Although even in this case, the situation can change dramatically, respectively

affecting the final indicators of food exports and imports. If export opportunities remain relatively stable, that is, at least those that developed in the second half of 2022, sales of Ukrainian agricultural products to the UK in 2023-2024 are quite capable of gradually (by 5-10% per year) growing, but they will not recover to the maximum level of 2021. Imports are somewhat more difficult, as they will directly depend on the deteriorating purchasing power of the population and the stability of the hryvnia. Most likely, food imports from British countries in the short term will remain in the range of 100 million USD for a year, with slight fluctuations in market conditions in Ukraine and abroad. In this aspect, the situation with food prices is indicative: although recent price trends in the world are decreasing, that is, the main groups of food are generally getting cheaper, the opposite picture is developing for Ukraine – due to war, force majeure, and other adverse consequences, Ukrainians face a constant increase in the cost of the consumer basket, including food and beverages as its most important components.

Thus, the study of the current state and prospects of foreign trade in agri-food products between Ukraine and the largest European states is essential for the formation of the export potential of its agricultural sector and the specific features of the internal food market, including their interdependence. If in the normal situation, the list of factors influencing exports and imports is standard, then force majeure is decisive for Ukraine, namely the Russian-Ukrainian war and the negative consequences for the entire economy caused by it (Shumska *et al.*, 2023).

For the UK, the COVID-19 pandemic and Russian military aggression in Ukraine, which have had global consequences, have caused substantial crisis pressure (Yurchyshyn, 2022). However, their negative impact has been substantially minimised, and the economic performance of the United Kingdom, in general, looks better than in other European countries.

In a period of substantial socio-economic changes and acceleration of integration processes, it is necessary to establish the role and place of agriculture in them (Lupenko *et al.*, 2022). It is determined that for this purpose it is advisable to conduct activities classified as structural adjustment, in particular, the introduction of European principles of regulation and organisation of activities. The authors note that the development of agriculture in the context of the national economy is implemented in three areas - increasing investment potential, digitalisation, and entering the international market.

Even before the full-scale war, the consumption of most food products by the Ukrainian population was insufficient to meet physiological needs (Salo *et al.*, 2023). In addition, energy-rich nutrition increases markedly in parallel with the increase in income. However, the ongoing military operations and the deteriorating economic situation in Ukraine only deepen the gap between people's real incomes and the cost (availability) of the food basket.

Since 2022, under martial law, the parameters of the functioning of the Ukrainian agricultural market have been radically changed (Boiko, 2022). Since this has caused completely new challenges and problems, the necessity to apply some additional measures of the state sectoral policy to stabilise it is emphasised.

The unprovoked Russian invasion of Ukraine has resulted in an apparent humanitarian and economic catastrophe extending beyond Ukraine (Mudrak, 2022). One of its consequences was the spread of famine both on the territory of Ukraine and on a global scale. Given the complexity of the forced situation, the key is the formation of internal stocks of agricultural products to provide stable food to Ukraine.

In response to new challenges, the Ukrainian government has introduced a plan of measures in the field of food security, including its monitoring, tracking the balance of major food groups, and providing appropriate support to producers (Polukhina, 2022). Among them, according to the author, some carry certain risks, in particular, the easing of land procedures throughout Ukraine, which are under various influences of military operations.

The global economy, which was recovering from the coronavirus crisis together with Ukraine (Patyka, 2021), faced an unprecedented problem of organising its functioning due to the conditions of martial law (Irtyshcheva *et al.*, 2022). The scale of sanctions pressure has also become maximum, so it takes time to adapt and adjust mutual economic activity for Ukraine and its Western partners (Ostashko *et al.*, 2022). The forecast for the development of the global economy is based on the assumption that price growth in developed and developing countries will accelerate, and there will be geopolitical uncertainty.

Therewith, the export potential of Ukraine is decreasing, although not as much for agri-food products (Osipova, 2022). In this regard, special assistance from the United Kingdom, which lifted all restrictions on the import of Ukrainian-made goods, is notable. An effective way to improve this overall situation is to strengthen cooperation with European Union countries and other regional leaders.

The war provoked an actual decline in Ukraine's exports, including grain crops, the demand for which has been stable and growing over the past decade (Gafarov *et al.*, 2022). Since the beginning of the Russian invasion, the positive dynamics have simply been lost. The authors believe that it will be extremely difficult to avoid an imbalance in the Ukrainian grain market in the short term because actual exports are equally likely to increase or decrease.

The results obtained in this study are confirmed, according to which Ukrainian-made poultry meat is one of the most promising products on the British market. In general, the demand in the world for it is growing, which leads to an increase in the volume of international trade (Kryvenko, 2022). In addition, on a global scale, Ukraine is one of the main exporters of poultry meat, and the United Kingdom, accordingly, belongs to the largest importers of poultry meat.

Thus, both countries are united by the confrontation with extreme socio-economic challenges, and with Russian aggression, it is conducted jointly. The UK has coped

relatively well with the consequences of the coronavirus pandemic, and Ukraine has adapted to a certain extent to economic realities in the context of war. However, the development of cooperation, in particular, trade relations, remains relevant for both sides under all circumstances. In 2022-2023, there were numerous liberalising concessions of a mutual nature in this area. Export-import operations with food must occupy an important place in the overall trade balance of Ukraine and the United Kingdom, which demonstrates their priority.

► Conclusions

The United Kingdom of Great Britain is one of the most economically developed countries in Europe, but simultaneously it consistently has a high import dependence on agri-food products. In addition, this country is one of the main importers of food in the world. Trade in agricultural products between Ukraine and the UK developed dynamically, especially after 2016, and considering the beginning of the Free Trade Zone between the parties from January 1, 2021, in connection with its withdrawal from the European Union. However, the full-scale Russian invasion led to a sharp decline in agricultural exports and imports for Ukraine, although the established ties with British partners remained, allowing for the continuation of mutual supplies of products. The commodity structure of food sales from Ukraine to the United Kingdom is generally focused on oilseeds, butter, and grain. Purchases in the UK also correspond to the main trends in Ukrainian imports, including premium alcohol and fish products. A comparison of Ukrainian exports and British imports showed that Ukraine's most unrealised potential is in the supply of poultry meat. Therewith, there are no prerequisites for serious changes in the commodity structure of Ukraine's imports. Forecast estimates show that, despite the war, it is likely that Ukraine will slowly increase exports of agri-food products to the UK, while imports will remain at the level of 2022. In any case, Ukraine needs to diversify its supply range, focusing on ready-to-eat products and value-added raw materials.

Promising areas of further research on the subject of foreign trade in food with the UK may be the analysis of the impact of the Free Trade Zone between the parties in dynamics over several years and the consequences of its complete lifting of restrictions on purchased products from Ukraine, and monitoring consumer trends in the British market, which show rapid changes, providing additional incentives for the supply of the necessary range of goods from abroad.

► Acknowledgements

None.

► Conflict of Interest

None.

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Зовнішня торгівля агропродовольчою продукцією між Україною та Великою Британією

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► **Анотація.** Серед найважливіших регіональних союзників України окремо варто виділити Велику Британію, яка спочатку в ролі держави-члена ЄС, а потім, з 2021 року самостійно в рамках двосторонньої Угоди всіляко сприяє розвитку вільної торгівлі, зокрема аграрної, між двома країнами. Свідченням цього стали постійно зростаючі в динаміці до 2022 року обсяги експорту та імпорту сільськогосподарської сировини і продуктів харчування для України з Великою Британією. Мета статті – дослідити динаміку зовнішньої торгівлі продукцією сільського господарства і харчової промисловості між Україною та Великою Британією, в тому числі зв'язок розвитку взаємної торгівлі з лібералізацією її умов. Було використано методи узагальнення, аналізу і синтезу, комплексної оцінки, історичний, графічний і табличний. Наведено загальну соціально-економічну характеристику Великої Британії з врахуванням її виходу зі складу Європейського Союзу та акцентом на поточному стані торгівлі агропродовольчою продукцією на міжнародному ринку. Проаналізовано кількісні і вартісні показники зовнішньої торгівлі агропродовольчою продукцією між Україною та Сполученим Королівством Великої Британії і Північної Ірландії з 2012 року, розглянуто характерні особливості товарної структури експортних продажів та імпортних закупівель України, в тому числі, у 2022 році, здійснено оцінку перспектив аграрної торгівлі між сторонами у найближчий час, зокрема, запропоновано напрями поглиблення зовнішньоекономічної співпраці між Україною та Великою Британією, визначено групи продукції, які залишатимуться пріоритетними навіть в умовах війни з огляду на потреби внутрішніх продовольчих ринків обох країн. Положення статті спрямовані на надання інформації стосовно можливостей розвитку торгівлі продукцією сільського господарства і харчової промисловості з Великою Британією для українських підприємств продовольчого сектору та органів державної влади, що забезпечують зовнішню політику і міжнародне співробітництво

► **Ключові слова:** міжнародне співробітництво; продовольство; важливий партнер; лібералізація; розвиток; трансформація



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Assessment of risks and prospects of employment and income of the rural population of Ukraine

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► **Abstract.** Employment, total household resources, in particular, income and expenditures of the rural population in any country are a direct reflection of well-being and a substantial criterion for socio-economic development. The purpose of the study is to identify risks, compare and determine the prospects for employment and income of the rural population of Ukraine. The methodological basis of the research is a systematic approach. Comparative analysis, graphical method, trend, index, correlation-regression analysis is used in the analytical study. Current conditions are analysed and trends in rural employment in Ukraine and their income level for 1991-2021 are determined. It was established that over the past 30 years, the socio-economic crisis in rural areas continues to worsen, which is manifested in increased unemployment and poverty. The main external and internal factors influencing the incomes of the rural population are identified and systematised. It is determined that the main influence is exerted by economic factors. Considering the recovery plan of Ukraine and other indicators, the level of employment, salaries, and incomes of the rural population is predicted. It is proved that ensuring employment and overcoming poverty should be based on the diversification of agricultural production and beyond agricultural activities. The main provisions and conclusions presented in the study can be used in the process of justifying and making managerial decisions by state management bodies in the development and implementation of an effective long-term national policy in the field of employment of the rural population of Ukraine, optimising approaches to the development of programmes to increase the income of the rural population

► **Keywords:** total resources; monetary income; number of employees; national policy measures

► Introduction

The level of well-being of the population depends on many economic, social, mental, and geographical factors. For Ukraine, this issue is particularly relevant, given that the standard of living of the Ukrainian people as of October 2022 is one of the lowest in Europe, and the standard of living of the population in rural areas is substantially lower than in urban areas, which creates negative economic and demographic trends (Ukraine took..., 2023). This potentially threatens the state's economic security and socio-political stability. Under martial law, the problem of ensuring employment and income stability of the population is becoming more relevant, especially in rural areas.

The problems of the welfare of the rural population have always been determined by the structure and size of total resources and monetary incomes, including wages, consumer spending on food and industrial goods, material goods, the availability and accessibility of social services: education, health, culture, sports, etc. That is why the laws of Ukraine "On the basic principles of State Agrarian Policy for the period up to 2015" (Law of Ukraine..., 2023), "On the goals of Sustainable development of Ukraine for the period up to 2030" (Resolution of the..., 2023), the National Economic Strategy for the period up to 2030 (Resolution of the..., 2023), etc. defined the main areas

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for solving problems of welfare in rural areas. This is, first of all, improving the living standards of farmers through employment and increasing wages, stimulating the consolidation of young professionals in rural areas, improving the pension provision of the rural population, improving the social development of the village, etc. In addition, Ukraine's desire to join the European community, gaining the status of a candidate member of the EU in June 2022, provides for ensuring sustainable socio-economic development of rural areas and improving the standard of living of the rural population.

Investigating the key parameters of the standard of living of rural households, V.R. Krupa & N.V. Martyniuk (2013) note positive trends in the growth of total resources and expenditures of the rural population. However, it is concluded that the standard of living of the rural population remains quite low. Currently, proper conditions for high-quality and full-fledged human development have not been created in rural areas, and this in turn leads to the depopulation of villages.

Yu.L. Kogatko (2015) also emphasises the importance of the problem of rural poverty and the need for its immediate solution. Summarising the author's study, it is noted that during the period he analysed, the level of poverty of the rural population increased, despite a slight increase in income, which in turn indicates an unsatisfactory state of implementation of state programmes to prevent poverty.

In the study of the quality of life of the rural population, the relationship between their employment and material well-being, O. Poplavska & O. Shevchuk (2020) note that the excess number of self-employed people in rural areas by almost three times that among the urban population indicates substantial risks in generating incomes of the rural population.

The analysis of the implementation of legislative measures to form an effective labour market in agriculture and the development of rural society, and the scale of discussion of these issues in scientific circles indicates that this is an urgent problem. Today it is characterised, first of all, by a very noticeable narrowing of the application of live labour in the field of agriculture, unemployment and impoverishment of the rural population, which is now partially solved only by labour in the personal sector of the rural population.

The purpose of the study from the standpoint of a systematic approach was to analyse the state, identify the basic factors of influence on employment and income of the rural population in Ukraine, assess the degree of their impact and predict it for the future, determine the main ways to increase the level of employment of the rural population, income, and quality of life in rural areas in Ukraine.

The following research tasks were formulated to achieve this goal:

- analyse current conditions and determine trends in employment and income of the rural population in Ukraine,
- identify and assess the main risks affecting the level of employment and income of the rural population,
- to predict the number of employed rural population and the level of their income in the conditions of wartime and post-war reconstruction of Ukraine.

► Literature review

Foreign and Ukrainian researchers offer various theoretical constructions regarding the study of employment and well-being of the population, in particular, rural ones.

Thus, under the concept of "income of the rural population" L.V. Salovska & V.O. Lypchanskyi (2004) is understood as a set of financial resources, other material resources, and intangible assets that rural residents receive for further spending to ensure a certain standard of living for a specific period, to preserve and accumulate their personal capital and household capital. The authors also note that the rural population of Ukraine, unlike the population of developed Western countries, is characterised by spending only actual revenues, explaining their opinion on the underdevelopment of the credit market. S.M. Khalatur (2015) complements the following features which summarised certain characteristics of the agri-food complex and identified certain aspects that do not contribute to increasing the income of the rural population, namely internal political instability; low investment rating of Ukraine; outdated material and technical base of agriculture; lack of skilled workers; low yield; soil depletion; insufficient state support, etc.

According to O.M. Borodina *et al.* (2020), the Ukrainian countryside is characterised by the extractive nature of economic development through "equality in poverty" against the background of limited access to quality sources of economic benefits. It is noted that an important source of income for farmers is the sale of products grown or produced on private farms. In addition, the authors note a steady trend of exceeding the income of the urban population in comparison with the rural population, which indicates the presence of elements of discrimination and unattractive employment in rural areas.

Differences in the incomes of urban and rural populations are also inherent in other countries, including developed countries, and are the subject of study by foreign researchers. In particular, F. Kramarz *et al.* (2022) devoted their attention to the problem of income inequality. In their paper, based on the analysis of income variance between territories, the authors state substantial differences between urban and rural areas in France. Although there has been a steady decline in such inequality in recent years, higher levels of inflation in rural areas offset this convergence.

Continuing the subject of employment and income levels, A.I. Suhostavets (2015) speaks about their relationship and interdependence. In particular, the researcher claims that the development of entrepreneurship depends on the growth of the incomes of farmers, who in turn are affected by the availability of jobs.

Yu.L. Kogatko (2015) focuses on the non-monetary characterisation of rural poverty. Namely, the lack of access to social facilities and infrastructure, and the quality of housing stock.

Consideration of various aspects of the formation of income and expenses of the rural population and their impact on entrepreneurship in different periods of independent Ukraine is devoted to the studies of such Ukrainian researchers as V.Ye. Krupin, A.O. Maksymenko (2012), K.I. Yakuba (2007; 2010), identifies the general theoretical aspects of the above-mentioned problem.

Features of rural employment and their main trends are examined by O.H. Bulavka *et al.* (2016) focusing on the relationship between the wages of agricultural workers and the level of employment in the industry. An important aspect of rural employment is identified in their research by K. Leshchenko & S. Leshchenko (2023), drawing attention to the fact that when developing practical recommendations on priority areas of employment development in rural areas, a necessary condition is the formation of areas of diversification of activities, considering the main types of non-agricultural employment. The study by V.P. Riabokon (2012) is devoted to the examination of various socioeconomic problems of rural employment. In the context of this paper, his conclusion about the existence of two interrelated problems in the rural labour market - socio-demographic and industrial - deserves attention is notable. According to the researcher, optimal conditions for living and reproduction in rural areas are possible only with a certain size of its population (socio-demographic aspect). Meanwhile, the production problem is that scientific and technological progress tirelessly leads to a reduction in the demand for labour in rural areas.

When determining the specific features of employment in rural areas H.S. Kukel *et al.* (2020) & A. Copola *et al.* (2020) focus on limited employment opportunities, low wages, increased social tension, and labour migration. It is noted that the most important source of income for rural households was a personal subsidiary farm, the share of which in the income structure was constantly growing. Thus, according to the results of their study, 82.6% of farmers considered income received from personal subsidiary farming to be a very important source of their income.

Determination of factors and assessment of the degree of their impact on employment in agriculture in Ukraine was conducted by N. Patyka *et al.* (2021). In particular, they proved that the most substantial socio-demographic factors influencing rural employment are the number of rural people aged 16-64 years and the demand for labour in agriculture. The most influential economic factor is labour productivity (production of gross output at constant prices in 2010 per 1 person employed in the agricultural sector).

Therewith, despite the presence of several scientific papers that cover various aspects of rural employment and the functioning of rural labour markets, rural incomes, and their interrelationships, the issues of determining the basic factors of influence on employment and incomes of the rural population in Ukraine, assessing the degree of their impact and forecast for the future, determining the main ways to increase the level of employment of the rural population, income, and quality of life in rural areas in Ukraine in the conditions of war and post-war recovery, considering European integration processes, require more detailed study.

► Materials and Methods

The methodological basis of the study is a systematic approach to the examination of the examined phenomena and processes and a dialectical method of cognition, which allowed comprehensively considering the processes related to the employment of the rural population of Ukraine and the influence of factors on the income of

peasants. The method of induction and deduction, abstraction, the ascent from the abstract to the concrete, and logical-theoretical generalisation was used to generalise the theoretical and methodological aspects of the study. Economic and statistical methods are used in analytical research (comparative analysis, average and relative values, trend analysis, graphical method, index, coefficient analysis, etc.) to diagnose the dynamics of economic indicators, to establish certain relationships, such as identity, similarity or difference between characteristics and facts.

Correlation regression and trend analysis were used to determine the dependencies in the formation of trends and predict the number of employed rural population. The forecast analysis of the financial resources of the rural population was conducted considering certain risks with reasonable scientific support. The method of expert assessments was used to determine the strength of the influence of factors on the resources of the rural population.

The expert survey was conducted in 2022 among individuals-residents of rural territorial communities in 6 regions of Ukraine (Transcarpathian, Chernihiv, Kharkiv, Cherkasy, Dnipropetrovsk, Odesa, two communities from each region), business entities (members of private farms, agricultural producers, in particular, farmers, intermediary organisations working in rural areas), officials of local self-government bodies. Specialists who were involved as experts were subject to general requirements: sufficient professional qualifications, awareness of the subject of the survey, and objectivity.

The purpose of the expert survey was to determine the factors influencing the resources of the rural population, identify risks, and assess their impact on revenue. The object of the expert survey is the income of the rural population, the subject of the study is factors and the degree of their influence on the level of income of the rural population. Conducting an expert survey provided for a complex of such papers: methodological nature – the formation of questions for respondents.

Notably, the survey involved investigating the opinion of participants regarding the priority of criteria that will be used in the forecasting process, factors of influence, and the degree of their influence on the income of the rural population. Organisational nature – directly conducting a survey. Therewith, a standard procedure was used: the study was conducted with an individual survey lasting about 5-10 minutes. The conditions for providing information were voluntary consent on a free basis, without disclosing data on the name of the territorial community, personal data of respondents, etc. Information processing, performing logical and arithmetic control of the primary information contained in the respondents' responses, and summarising the results were conducted using Microsoft Excel 2019. The survey was conducted by random selection, in which all objects of the general population had equal opportunities to get into the sample. The parameters of the sample population of interviewed experts correspond in their composition and structure to the general population of experts, which allows considering a sociological study representative and extrapolation of its results. The statistical error is 3.9%.

The abstract-logical method was used to generalise scientific and methodological approaches to examining the employment and income of the rural population of Ukraine and identifying ways to implement the national policy to ensure employment and stable income growth of the rural population; formulation of conclusions.

The study used statistical data from the state statistics service of Ukraine for 1999-2021. Collecting statistical information and database formation cover: the number of the employed rural population, the number of registered unemployed among the rural population, the unemployment rate in rural areas, demand for labour in agriculture, wages, household incomes in rural areas per month, per one, the number of the economically active rural population, gross domestic product (hereinafter – GDP) of the agricultural sector, consumer price indices, capital investment in agriculture, indicator of economic expectations, agricultural production, labour productivity, and other macroeconomic indicators.

► Results

One of the main principles of the functioning of the European Union is to ensure a decent life for the population. The desire of the people of Ukraine to integrate into the European community requires appropriate theoretical and methodological support for the development

of models, and mechanisms for rural development, and making the necessary decisions to improve the level of well-being of its residents. If the negative trends that have developed over the past decades in the development of rural areas, where a third of the population of Ukraine lives are not overcome, it will not be able to be a full member of the European Union. In this context, the low standard of living of the rural population, which leads to the migration of the most active and able-bodied part of it outside of Ukraine, increases the decline of rural areas.

In the course of the study, it was established that due to unemployment and the loss of opportunities for the rural population to exercise their constitutional right to work and decent pay for it, the problems of their poverty, despite the growth of total resources and monetary incomes, continue to increase. In particular, from 1999-2021, total resources per farm increased almost 37 times to UAH 13,417.59 (Fig. 1).

As part of the total resources of rural households, monetary incomes per person on average per month increased 72 times to UAH 11,889.69, and wages – more than 107 times to UAH 6,369.16. Notably, despite the increase in wages of the rural population, its share in the structure of resources of rural households, although increased, remains at a rather low level – 47.5% in 2021 (for comparison, the share of wages in the total income of the urban population in the same year was 69.5%).

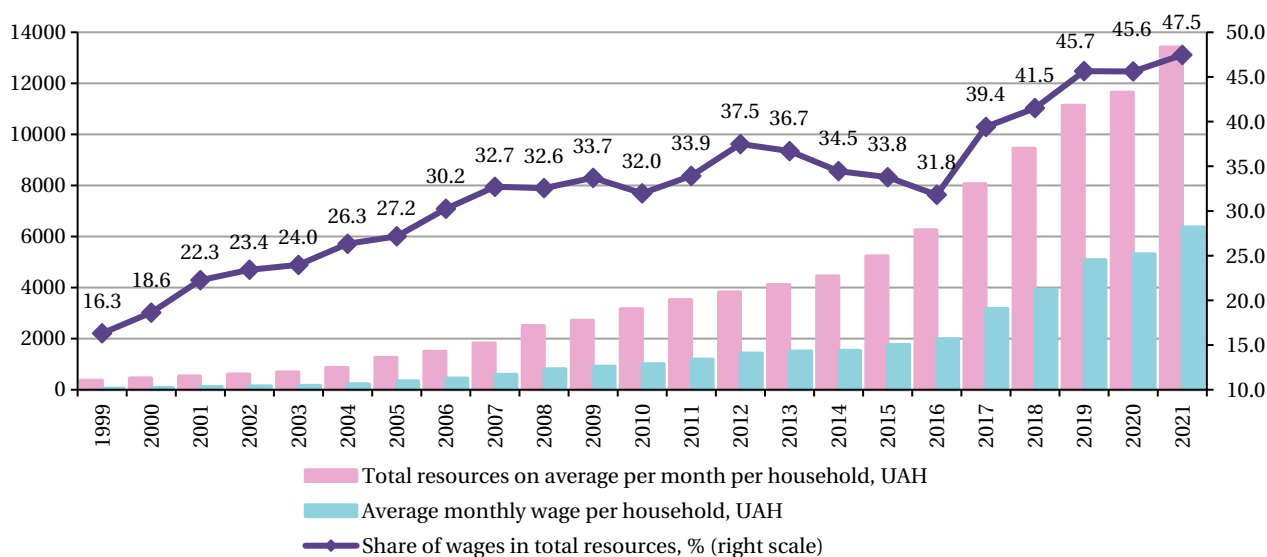


Figure 1. Dynamics and structure of total resources of rural households in Ukraine for the period of 1999-2021

Source: compiled according to the Employed population by age group... (2023)

Other substantial components of rural household resources are pensions, scholarships, allowances, and cash subsidies. A certain share of the rural population provides their needs, in particular, food, working on household and land plots for personal farming – according to statistics from the state statistics service of Ukraine, households use 6.2% of land for growing agricultural products for their own needs, and 6.6% for growing agricultural products, both for their own needs and for sale (Personal peasant households..., 2022). Such a low level of the share of wages in the total income of the rural population (less than half)

indicates a difficult situation in the domestic rural labour market, namely, the lack of work, the disparity of its fundamental factors, the growth of unemployment among the rural population, the shortage of quality jobs, and insufficient provision of conditions for decent work.

Based on the results of a study of the number of employed rural population (Fig. 2) according to the state statistics service of Ukraine, during the period 2002-2021, there is a tendency to reduce the number of employed rural population by 45% to the level of 4,877 thousand people in 2021.

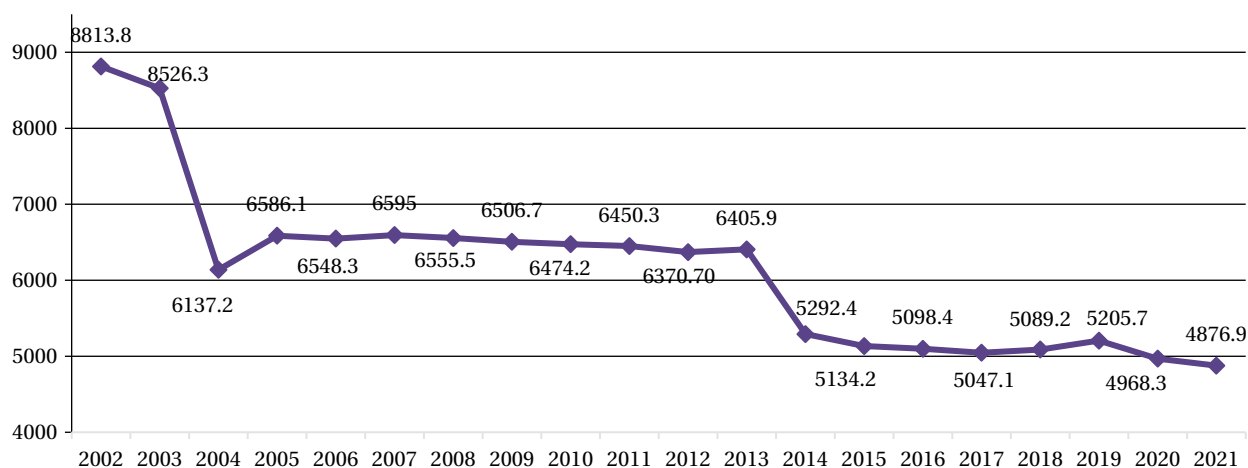


Figure 2. Number of employed rural population of Ukraine, 2002-2021, thousand people

Source: compiled according to the Employed population by age group... (2023)

In 2021, the employment rate of the rural population reached its lowest level since 2000 – 46.7%. This is the lowest figure in the last 20 years. The unemployment rate of the rural population in 2021 increased to 10.6%, and among people of working age – to 11.2%.

During the Russian-Ukrainian war, the situation worsened substantially. The lack of official statistics makes it impossible to estimate the actual level of employment, but its decline is substantial, and in some regions, even catastrophic. As a result of military operations, substantial migration of the rural population from the territories of military (combat) operations, and those that are under

temporary occupation, surrounded (blocked) both within the country and abroad, a substantial excess of the supply of labour over the demand for it in the rural labour market, a decrease in the number of economically active rural population due to the migration of young people to cities due to the lack of proper living conditions, employment, decent wages, and other reasons, a further deterioration in the level of employment of the rural population is expected.

Based on the data of the state statistics service of Ukraine on the dynamics of the number of employed rural population, its prospective volumes are calculated until 2030 (Table 1).

Table 1. Trends and forecast of the number of employed rural population of Ukraine in 2030, thousand people

Indicator	Actual number of employed rural population from 2002 to 2021										2021 to
	2002	2005	2010	2015	2016	2017	2018	2019	2020	2021	2002, %
Employed rural population of Ukraine for the period, thousands of people	8814	6586	6474	5132	5098	5047	5089	5206	4968	4877	55.3
Projected number of the employed rural population of Ukraine in 2030											
Forecast type	Optimistic				Pessimistic				Realistic		
Forecast trend	polynomial (2 degrees) (option 1)		stepwise (option 2)		by average trend			linear		logarithmic	
Trend equation	y=5.6612x ² - 280.54x + 8267.4		y=8991.6x ^{-0.187}		average annual rate in 2002-2021 = 97.3%			y= -161.66x+ 7831.5		y= -1224ln(x) + +8725.9	
Coefficient of determination R ²	0.7797		0.799					0.7553		0.8177	
Projected number of the employed rural population of Ukraine, thousand people	4946		4760		3694			2982		4563	

Source: calculated according to the Employed population by age group... (2023)

Among the assumptions for the optimistic scenario, the following are identified: 1) the war will end in 2023; 2) at the end of the war, no one and nothing threatens the territorial integrity of Ukraine; 3) the “Marshall Plan” will be effective; 4) existing programmes for the development of the agricultural sector and rural areas

in the current and strategic periods; 5) the reform of the main state institutions have been conducted; 6) the implementation of measures to move towards EU membership. The pessimistic scenario accordingly assumes the absence of such reforms and the continuation of military operations after 2023.

According to two versions of the optimistic forecast, the number of employed rural population of Ukraine in 2030 will be 4,760-4,946 thousand people, while according to the pessimistic forecast, it will decrease to the level of 2,982-3,694 thousand people. The most realistic forecast, given the tightness of the stochastic relationship and the value of the coefficient of determination, is based on the logarithmic trend ($R^2=0.8177$), according to which in 2030 a decrease in the number of employed rural population to 4,563 thousand people, which is 6.4% less than in 2021 should be expected. The realistic scenario involves considering the existing indicators as of the forecast date, in particular, official statistics of the state statistics service on the dynamics of the number of employed rural population of Ukraine. The realistic scenario assumes that there is no progressive development of rural areas; without substantial increases in its financing; improvement of the situation in the rural labour market will be systematic; entrepreneurial activity does not substantially differ from the indicators of previous periods. However, if military operations continue after the end of 2023, even if the reforms are successfully implemented by European requirements and standards, this will substantially worsen the level of employment of the rural population. It is necessary to consistently adhere to the initiated measures of state

protectionist policy in strategic areas aimed at increasing the institutional capacity and resource sufficiency of rural united territorial communities (hereinafter referred to as UTC), systematic and consistent support for the market activity of micro- and small economic entities, the institutionalisation of employment of members of rural farms and other micro- and small forms of management to prevent socio-economic risks in the field of rural employment and the growth of their incomes. This will substantially increase the readiness and resilience of the rural population to risks.

Based on the data of the state statistics service of Ukraine on the dynamics of income of the rural population and considering the forecast of the number of employed rural population, programmes of the Ukraine recovery plan (2023), in particular, the agricultural complex, a forecast analysis of the financial resources of the rural population was performed, considering certain risks with reasonable scientific support.

First of all, the factors and degree of their impact on the resources of the rural population were determined. For this purpose, in 2022, a survey of members of rural UTC was conducted in 6 regions of Ukraine (Transcarpathian, Chernihiv, Kharkiv, Cherkasy, Dnipropetrovsk, Odesa). The survey results are shown in Table 2.

Table 2. Determining the strength of the influence of factors on the resources of the rural population according to the survey of communities in 6 regions of Ukraine for 2022

External factors of influence	Degree of influence (weighted average %)	Internal factors of influence	Degree of influence (weighted average %)
Financial assistance	2	Funds to relatives from military personnel	4
Material resources	7	Demographic processes	2
Total	9	Logistics networks	5
		Economic including	
		production facilities	8
		from the cultivation of land plots	18
		budget	54
		Total	91
Total	100		

Source: calculated based on the results of an expert survey

As can be seen from Table 2, external factors such as financial assistance and material resources do not substantially affect the resources of rural residents. However, internal factors, namely economic ones, make up the main influence. Another important aspect of forecasting

is the identification of risks and the assessment of their impact on income. The method of interviewing residents of rural communities from the same 6 regions of Ukraine was also used to solve this problem. The main risks and the degree of their impact are shown in Table 3.

Table 3. Assessment of the impact of risks on rural incomes according to a survey of communities in 6 regions of Ukraine in April 2023

Risks from loss	Percentage of community residents exposed to these risks, %	The level of impact of risks on the corresponding incomes of rural residents, %
Jobs	22	8
Income from the land plot	88	18
Property	98	5
Personal transport	58	12
Breadwinner	25	68

Table 3, Continued

Risks from loss	Percentage of community residents exposed to these risks, %	The level of impact of risks on the corresponding incomes of rural residents, %
Social payments from Ukrainian and foreign sources	68	78
Changes in the regulatory framework for income taxation	95	18

Source: calculated based on the results of an expert survey

The income of the rural population are determined based on the following data. As of January 1, 2022, 12,474 thousand people, or 30.3% of the total population of Ukraine, lived in rural areas. As of April 2023, in Ukraine, 50% of the economic potential has been destroyed or substantially damaged, almost 35% of the territory has been invaded, and in other territories, there is a threat of further

destruction. In addition, when forecasting the incomes of the rural population, forecast estimates for the economic development of Ukraine were considered, in particular, the rate of changes in GDP, the consumer price index, the unemployment rate, etc. (Table 4).

The result of forecasting the income of the rural population is presented in Table 5.

Table 4. Initial data for calculations

Indicators	Actual values					Forecast		
	2018	2019	2020	2021	2022	2023	2024	2025
GDP rates, physical volume, Ukraine, %	103.5	103.2	96.2	103.4	-30.3	0.3	4.1	6.4
GDP rates, physical volume, agricultural sector, %	108.0	101.2	89.4	115.4	-30	- 17	-	-
Consumer Price Index, %	109.8	104.1	105.0	110.0	126.6	118.7	110.4	106.7
Consolidated budget balance, % of GDP	-1.9	-2.2	-5.3	3.4	-17.5	-15.2	-9.0	-6.0
Unemployment rate, %	8.8	8.2	9.5	9.8	25.8	26.1	20.0	17.6
Rural unemployment rate, %	9.2	8.6	10.3	10.6	-	-	-	-
Indicator of economic sentiment for the first quarter, %	-	-	114.5	97.0	109.2	97.4	-	-

Source: calculated based on data from Structure of aggregate resources... (2023); Average monthly wages... (2023)

Table 5. Forecasting the level of salaries and incomes of the rural population (expert assessment according to the recovery plan of Ukraine and the indicators considered)

Indicators	Base period	Transition period	Forecast period		
	2021	2022	2023	2024	2025
Average monthly salary in agriculture, forestry, fishery, UAH.	12287	13061	15020	17724	21623
The annual increase in the average monthly salary in agriculture, forestry, and fishery, %	125.9	106.3	115.0	118.0	122.0
Household income in rural areas per month, per one, UAH.	13184	13474	15091	17505	21007
Annual income growth in rural areas, %	115.2	102.2	112	116	120
in particular, the salary of households in rural areas per month, per one, UAH.	6369	6770	7785	9187	12104

Source: calculated based on data from Structure of aggregate resources... (2023); Average monthly wages... (2023)

According to the results obtained, in 2025, compared to 2021, the incomes of the rural population will increase by 1.6 times, and wages – by 1.9 times. Such forecasting results also consider political, economic, and social aspects. In particular, Ukrainian society is determined exclusively to win the Russian-Ukrainian war, the war should end before 2024. This is exactly the assumption made by the president of Ukraine Vladimir Zelensky (Zelensky predicted the..., 2023). After the war, there is usually a rise, including in the economy. Prime Minister of Ukraine D.A. Shmygal

in Lugano presented a plan for the restoration of Ukraine (2023), which provides for attracting hundreds of billions of dollars in international aid. In addition, the European Commission at the summit on June 23, 2022, granted Ukraine the status of a candidate for EU membership (It's official! Ukraine..., 2022). This opens up substantial prospects for improving the social situation, in particular, solving certain social problems. Among the most relevant ones is an increase in the level of employment and income of the population, in particular, rural ones.

Wages should become the main source of personal income generation for farmers. An important strategic goal for the future should be to increase the level of remuneration of the employed rural population to the average in the economy and bring its share in the total income of the population to at least 65%.

Measures to increase the level of employment of the rural population, ensure adequate incomes and quality of life in rural areas should be aimed at diversifying agricultural and non-agricultural activities, introducing new industries, in particular, by stimulating the development of a diverse structure of employment of the rural population, considering the available resource potential and needs of rural areas, overcoming the monostructural employment of the rural population and low labour mobility of people of working age. In addition, it is important to find opportunities to create qualitatively new jobs with decent working conditions and wages, considering the specific features of the functioning of rural territorial communities. Promote the activation of the creation of small agricultural businesses, agricultural service cooperatives on the territory of each territorial community, and expand the business environment. Ultimately, as the practice has shown, under extreme conditions, such as a pandemic and war, micro- and small businesses have proved more viable, managed to quickly adapt to new operating conditions, and their contribution to food production and food security is vital.

Effective ways should be developed to motivate young professionals of popular professions to return or move to rural areas for permanent residence and work, providing them with grant support for the implementation of startups in agriculture when growing niche crops, organic products, processing raw materials, providing recreational services and other activities. It is worth considering the possibility and feasibility of transferring to organise micro- and small businesses, service cooperatives, including on a gratuitous basis, unused real estate objects of communal property and land plots on which they are located.

At all levels of management, it is necessary to conduct a complex of organisational, legal, and economic measures to create favourable conditions for the life of the rural population, recreate its labour potential, form motivational factors for the return of the evacuated rural population and temporarily displaced persons to their places of permanent residence, reduce the outflow of economically active population from rural areas. It is advisable to develop and implement long-term targeted programmes to support the rural population, primarily young people, through the provision of soft loans for education, housing, transport, and agricultural machinery, and the development of family entrepreneurship to encourage living in rural areas. It is necessary to conduct continuous awareness-raising on the benefits of protected productive employment using modern means of communication to reduce the share of rural employment in the informal sector. It is also important to form the social responsibility of agribusiness to employees, society, economic, social, and environmentally safe development of the village.

► Discussion

Theoretical, methodological, and practical aspects of employment and income of the rural population, identification of the relationship between these economic categories, identification of problems, and search for solutions to these problems are discussed in numerous scientific publications.

Thus, V.Ye. Krupin & A.O. Maksymenko (2012) explain the lower national level of income of the rural population in Ukraine by the monofunctional economic activity, which focuses on the production of agricultural products. Comparing the authors' conclusions, however, it is not possible to agree with their statement about the lack of alternatives to agricultural production. Now in rural areas, there are opportunities for the dynamic development of non-agrarian activities, such as trade, processing, and processing of agricultural raw materials, industrial production, handicrafts, agrotourism, employment in the social field, etc. However, there are also prospects in the agricultural sector, in particular, organic production, production of niche crops, and development of animal husbandry, in addition to conventional poultry, pig, and cattle breeding, the Ukrainian Village has substantial potential in development, for example, goat breeding, sheep breeding, etc. The problem of the development of the Ukrainian villages is not an insufficient number of sources of income, but a lack of entrepreneurial spirit, optimism, initiative, low motivation, insufficient awareness of the rural population about the available opportunities and areas for their implementation, insufficient skill level, etc.

The analysis of income levels, the role of EU assistance in ensuring fair income levels, and how different socio-economic and structural characteristics affect the economic viability of farms in Italy are examined by A. Coppola *et al.* (2020). Assessing this impact with and without EU assistance, the authors concluded that EU payments under the Common Agricultural Policy do not change the factors that affect the viability of the farm, but may change their weight. This is relevant for Ukraine, given the defined European integration course. Ultimately, by becoming a member of the EU, Ukraine will have to comply with all policies and comply with all EU directives, so it is important to know how this will affect the functioning of the agricultural sector and the well-being of rural residents.

Quantitative assessment of the impact of EU financial subsidies on the growth of agrotourism as a source of employment and income growth of the rural population, migration processes, and determination of socio-economic factors influencing these processes in Romania was examined by N. Galluzzo (2021). Based on the results of his study, the researcher concludes that financial subsidies allocated within the framework of the general agricultural policy have a positive impact on the development of agrotourism. In particular, at the time of the study, sparsely populated areas of Romania showed a substantial increase in agrotourism, and as a result – an increase in employment and income of the rural population. This confirms the proposals formulated in this study.

Regarding alternatives to employment in Agriculture M.M. Pityulych *et al.* (2021) also prove that an important area here can be the creation of rural green estates based

on their private farms. However, it is noted that it is unlikely that the income from such business activities will be sufficient to cover consumer spending and meet the needs of farmers at the proper level.

Investigating the problem of migration and reconfiguration of rural areas, M.I. Fonseca *et al.* (2021) concluded that migration processes in Portugal (internal – from city to village, external – from other countries to rural areas) generally contributed to the growth of incomes of the local rural population, primarily due to rent for rented housing and agricultural land. These migration processes have also contributed to the development of Portugal's rural areas themselves, primarily in their social field. The presence of migrants has contributed to the filling of local schools, the revival of the rural labour market, primarily in the educational sector, and the provision of various services. Such experience in developing rural areas, promoting employment, and increasing rural incomes can be useful for Ukraine, given the large number of internally displaced persons.

Measuring long-term trends in income inequality among U.S. citizens, C. Krolage *et al.* (2022) conclude that there is a relative decrease in the importance of wages for the population with high-income levels. The share of wages in the total resources of a relatively rich population tends to decrease, but income from capital investments and business activities increases. Therewith, for low-income citizens, wages continue to play an important role in the formation of total incomes. According to researchers, modern technologies and tax mechanisms may be potential reasons for the growth of income inequality in citizens.

The study of the situation in rural areas in Ukraine, including employment of the rural population, in the context of the decentralisation reform, was given its attention to N. Davydenko *et al.* (2022). The results of their study confirm the conclusions made in this study. In particular, those that relate to the decline in the level of employment of the rural population, although at a lower rate. This study refutes the hypothesis of achieving the rural development goals that were defined at the beginning of decentralisation and enshrined in the current legislation. The authors also conclude that there are no prospects for achieving these goals shortly.

According to the author's estimates and forecasts, Ukraine can effectively develop rural areas, and contribute to improving the well-being and quality of life of the rural population. However, the authors are convinced that this can be achieved only if all actions aimed at solving the problem of ensuring rural employment, increasing their incomes, and improving the quality of well-being and life should be integrated, conducted comprehensively, use effective tools for its implementation and if there is sufficient funding for regional development programmes.

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►Conclusions

It was established that the dynamics of the level of employment of the rural population in Ukraine have a negative trend. In particular, over the past 20 years, it has decreased by 9.2 percentage points from 55.9% in 2002 to 46.7% in 2021. Considering the maximum value of the rural employment rate of 63.5% in 2013, this decrease is 16.8 percentage points. The forecast of the number of employed rural population until 2030, even with an optimistic alternative, shows a tendency to further decline. This is due not only to a reduction in the number of the rural population, including economically active but also to a change in the structure of agricultural production, in particular, the substantial predominance of crop production, as a less labour-intensive industry, over animal husbandry (the ratio of 76% to 24% in the total structure of agricultural production). In addition, scientific and technological progress, namely automation, robotisation of workplaces, and individual operations, also leads to a decrease in employment directly in agriculture.

Modern factors that affect the income of the rural population should be divided into two groups: internal and external. According to the assessment, internal economic factors, in particular, budget and revenues from land cultivation, are the most influential. The estimate of monetary revenues until 2025 shows faster growth, which is primarily due to the potential receipt of hundreds of billions of dollars in international aid for the recovery of the Ukrainian economy in the post-war period. The scientific originality of the results obtained consists of substantiating theoretical and methodological provisions, scientific and methodological, and practical approaches to assessing and ensuring employment and income of the rural population of Ukraine in the conditions of wartime and post-war recovery. In particular, the scientific and methodological foundations of the study of the level of income of the rural population of Ukraine were improved in terms of determining factors and assessing the strength of their impact on the resources of the rural population, and methodological approaches to the quantitative analysis of the impact of factors on employment and income of the rural population of Ukraine were further developed. Promising areas of further research in this context are the development of effective national policy measures, justification of methods and mechanisms for their implementation to improve the situation in the rural labour market, ensure the growth of incomes of the rural population of Ukraine and promote the development of rural areas in general.

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►Conflict of Interest

None.

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Оцінка ризиків та перспектив зайнятості й доходів сільського населення України

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► **Анотація.** Зайнятість, сукупні ресурси домогосподарств, зокрема доходи і витрати сільського населення у будь-якій країні є прямим віддзеркаленням добробуту і вагомим критерієм соціально-економічного розвитку. Мета статті – виокремити ризики, здійснити порівняння та визначити перспективи зайнятості й доходів сільського населення України. Методологічною основою дослідження є системний підхід. В аналітичних дослідженнях застосовано порівняльний аналіз, графічний метод, трендовий, індексний, кореляційно-регресійний аналізи. Проаналізовано сучасні умови та визначено тенденції зайнятості сільського населення в Україні та рівня його доходів за 1991-2021 рр. З'ясовано, що за останні 30 років соціально-економічна криза на селі продовжує посилюватися, що проявляється в скороченні рівня зайнятості, посиленні безробіття, зростання бідності. Ідентифіковано та систематизовано основні зовнішні та внутрішні чинники впливу на доходи сільського населення. Визначено, що основний вплив здійснюють економічні чинники. З урахуванням Плану відновлення України та інших показників прогнозовано рівень зайнятості, зарплат та доходів сільського населення. Доведено, що забезпечення зайнятості та подолання бідності повинно базуватися на диверсифікації сільськогосподарського виробництва та за межами аграрної діяльності. Основні положення і висновки, викладені у статті, можуть бути використані в процесі обґрунтування та прийняття управлінських рішень державними органами управління при розробленні та реалізації дієвої довгострокової державної політики у сфері зайнятості сільського населення України, оптимізації підходів до розробки програм підвищення доходів сільського населення

► **Ключові слова:** сукупні ресурси; грошові доходи; кількість зайнятих; заходи державної політики

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