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## FOREIGN ECONOMIC ACTIVITY OF AGRICULTURAL ENTERPRISES OF UKRAINE: CHALLENGES OF INSTABILITY AND OPPORTUNITIES TO STRENGTHEN EXPORT POTENTIAL

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**Summary.** The article explores the peculiarities of the functioning and transformation of the foreign economic activity of Ukrainian agricultural enterprises under conditions of war and growing global instability. Special attention is paid to the impact of military risks, destruction of logistics infrastructure, blockade of seaports, volatility of world prices, currency fluctuations, and institutional restrictions on the stability and efficiency of export operations. The study analyzes the dynamics of production and export of agri-food products in 2021–2024, identifying key structural changes in both the commodity and geographical composition of exports. It is substantiated that the reorientation of export flows toward EU countries, the increase in the share of land and river logistics, and shifts in product structure became forced responses to external shocks. Export potential is interpreted as an integrated, multidimensional system that combines production, financial, logistics, institutional, managerial, and strategic components. Within this framework, an integral model for assessing the export potential of agricultural enterprises is developed. The model is based on a system of quantitative and qualitative indicators grouped by functional blocks and aggregated into a composite index. The model was tested using statistical data for 2021–2024. The results reveal a sharp decline in the integral indicator in 2022 due to large-scale logistical disruptions and increased transaction costs, followed by gradual stabilization and partial recovery in 2023–2024. The logistics component proved to be the most vulnerable and sensitive to external shocks. The research demonstrates that export potential is formed as a complex system integrating production capacity, financial resilience, managerial adaptability, institutional support, and market positioning. The necessity of transitioning from a predominantly raw-material export model toward a strategy focused on higher value-added products is substantiated as a key condition for strengthening international competitiveness. The main risks of foreign economic activity—logistical, currency, price, and regulatory—are identified and systematized. An adaptive mechanism for foreign economic activity is proposed, incorporating comprehensive risk assessment, transformation of business processes, diversification of sales markets, development of alternative logistics routes, and implementation of strategic management tools. The practical significance of the study lies in the possibility of applying the proposed integral model and adaptation mechanism for managerial decision-making aimed at enhancing the resilience and competitiveness of agricultural enterprises in international markets.

**Key words:** export potential, foreign markets, instability of the external environment, competitiveness, agricultural enterprises, adaptation, strategic management, business processes.

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## ЗОВНІШНЬОЕКОНОМІЧНА ДІЯЛЬНІСТЬ АГРАРНИХ ПІДПРИЄМСТВ УКРАЇНИ: ВИКЛИКИ НЕСТАБІЛЬНОСТІ Й МОЖЛИВОСТІ ПОСИЛЕННЯ ЕКСПОРТНОГО ПОТЕНЦІАЛУ

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**Резюме.** Досліджено особливості функціонування й трансформації зовнішньоекономічної діяльності українських сільськогосподарських підприємств в умовах війни та зростаючої глобальної нестабільності. Особлива увага приділяється впливу воєнних ризиків, руйнування логістичної

*інфраструктури, блокади морських портів, волатильності світових цін, коливань валютних курсів та інституційних обмежень на стабільність та ефективність експортних операцій. Проаналізовано динаміку виробництва та експорту агропродовольчої продукції у 2021–2024 роках, визначено ключові структурні зміни як у товарному, так і в географічному складі експорту. Обґрунтовано, що переорієнтація експортних потоків у бік країн ЄС, збільшення частки сухопутної та річкової логістики, а також зрушення в структурі продукції стали вимушеними відповідями на зовнішні шоки. Експортний потенціал трактується як інтегрована, багатовимірна система, що поєднує виробничу, фінансову, логістичну, інституційну, управлінську та стратегічну складові. У цих рамках розроблено інтегральну модель оцінювання експортного потенціалу сільськогосподарських підприємств. Модель базується на системі кількісних та якісних показників, згрупованих за функціональними блоками та агрегованих у композитний індекс. Модель була протестована з використанням статистичних даних за 2021–2024 роки. Результати дослідження демонструють різке зниження інтегрального показника у 2022 році через масштабні логістичні збої та зростання трансакційних витрат, а потім поступову стабілізацію та часткове відновлення у 2023–2024 роках. Логістична складова виявилася найбільш вразливою та чутливою до зовнішніх шоків. Дослідження демонструє, що експортний потенціал формується як складна система, що інтегрує виробничі потужності, фінансову стійкість, управлінську адаптивність, інституційну підтримку та позиціонування на ринку. Обґрунтовано необхідність переходу від переважно сировинної експортної моделі до стратегії, орієнтованої на продукцію з вищою доданою вартістю, як ключову умову посилення міжнародної конкурентоспроможності. Визначено та систематизовано основні ризики зовнішньоекономічної діяльності – логістичний, валютний, ціновий та регуляторний. Запропоновано адаптивний механізм зовнішньоекономічної діяльності, що включає комплексне оцінювання ризиків, трансформацію бізнес-процесів, диверсифікацію ринків збуту, розвиток альтернативних логістичних маршрутів та впровадження інструментів стратегічного управління. Практичне значення дослідження полягає в можливості застосування запропонованої інтегральної моделі та механізму адаптації для прийняття управлінських рішень, спрямованих на підвищення стійкості й конкурентоспроможності сільськогосподарських підприємств на міжнародних ринках.*

**Ключові слова:** експортний потенціал, зовнішні ринки, нестабільність зовнішнього середовища, конкурентоспроможність, агропідприємства, адаптація, стратегічне управління, бізнес-процеси.

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**Statement of the problem.** The agricultural sector traditionally plays a key role in the formation of Ukraine's export potential and ensuring foreign exchange earnings. The share of agri-food products in the total structure of the country's exports consistently exceeds 40 %, which indicates the high dependence of the national economy on the results of foreign economic activity of agricultural enterprises. At the same time, the current operating conditions are characterized by increased instability of the external environment caused by geopolitical risks, disruption of logistics chains, fluctuations in world prices, increased trade barriers and increased requirements for the quality and safety of products.

The full-scale war and its economic consequences have significantly affected the foreign economic activity of agricultural enterprises of Ukraine, in particular the volume of exports, the commodity structure and the geography of foreign markets. Before the start of the full-scale aggression, Ukraine was one of the world's leading exporters of agricultural products: in 2021, the grain harvest reached record levels, and the country supplied its products to more than 125 countries around the world, providing about 9% of world exports of wheat, 12% of corn and a significant share of the sunflower oil market.

The outbreak of the war significantly reduced production and export indicators. Thus, according to analysts, in 2022, the total grain harvest decreased significantly compared to 2021, which led to difficulties with the creation of export batches; At the same time, grain production fell by more than a third, which confirms the loss of sown areas and limited access to fields [1, 2].

In the marketing year 2022/23 (July 2022 – June 2023), Ukrainian grain exports decreased significantly compared to pre-war levels. According to the Ministry of Agrarian Policy and Market Analysis, grain exports during this period amounted to approximately 35–37.6 million tons, reflecting a decrease of 16–20% compared to the previous year. This drop

is due, among other things, to the restrictions on maritime logistics in the early stages of the war, which led to a significant accumulation of product stocks in the domestic market and a drop in shipment rates.

It should be noted that the implementation of the "grain initiative" with the assistance of the UN and Turkey made it possible to resume part of exports by sea: during the period of this initiative, about 33 million tons of grain and food products were exported through the Black Sea, which partially compensated for productivity losses and became an important factor in stabilizing foreign economic activity.

Export trends in the 2023–2024 marketing year indicate a certain recovery in the agricultural sector. According to the Ukrainian Grain Association, the volume of exports of grain and oilseeds during this period amounted to about 57.5 million tons with a total value of more than 10.7 billion dollars. USD, and taking into account other food items – more than USD 17.8 billion. USA. At the same time, exports of wheat amounted to about 18.4 million tons, corn – 29.3 million tons, soybeans – almost 3 million tons, and rapeseed – about 3.7 million tons. These data indicate a partial recovery of external supplies of agricultural products compared to the low indicators of the previous year, but still below pre-war levels.

Thus, the quantitative dynamics of exports of agricultural enterprises of Ukraine during the full-scale war is characterized by a sharp initial drop in volumes, a gradual recovery of supplies through new logistics corridors, and a changed commodity structure in favor of products with higher added value. The analysis shows that, despite significant losses of productive capacities and limited access to ports, the agricultural sector has consistently adapted to the new conditions, which allows it to maintain export positions in world markets and form the basis for further recovery and growth.

In such conditions, there is an objective need to rethink approaches to the management of foreign economic activity of agricultural enterprises, adapt their business processes to changes in the external environment and form strategies aimed at strengthening export potential. These issues are directly related to both practical tasks of ensuring sustainable development of agribusiness, and scientific issues of strategic management, competitiveness and adaptation of enterprises in conditions of instability.

**Analysis of available researches and publications.** The problems of development of foreign economic activity of agricultural enterprises and the formation of their export potential were reflected in the works of many domestic and foreign scientists. In the studies of Ukrainian authors, considerable attention is paid to the analysis of the role of the agricultural sector in the structure of national exports, the impact of the state's foreign trade policy and institutional restrictions on the export activity of enterprises [4].

Thus, in the works of O. V. Shubravska, the emphasis is placed on the structural deformations of Ukraine's agricultural exports and the need to transition from the raw material model to the export of products with high added value. The authors emphasize that the preservation of raw material orientation limits the long-term competitiveness of agricultural enterprises in foreign markets [5]. The issues of competitiveness of agri-food products and the factors of their formation are considered in the works of O. Faychuk and A. Konopliasty, emphasize the importance of technological renewal, improving management efficiency and adaptation of production processes to international quality standards [6].

Foreign scientific publications and analytical reports of international organizations, including FAO and the World Bank, focus on the integration of agricultural producers into global value chains, diversification of export markets and strengthening the role of strategic management in agribusiness [7]. The works of M. Porter and his followers emphasize the importance of strategic flexibility of enterprises as a key prerequisite for maintaining competitive advantages in a turbulent external environment [8].

At the same time, the analysis of scientific sources shows that the issues of adaptation of internal business processes of agricultural enterprises to unstable conditions of functioning in foreign markets remain insufficiently systematized. This necessitates further research aimed at substantiating integrated approaches to strengthening the export potential of agricultural enterprises.

**The purpose of the study.** The purpose of the study is to substantiate the directions of development of foreign economic activity of agricultural enterprises of Ukraine in the conditions of instability of the external environment and to determine the possibilities of strengthening their export potential on the basis of adaptation of business processes and strategic management.

The unresolved part of the general problem is the formation of a practically oriented mechanism for adapting the foreign economic activity of agricultural enterprises to dynamic changes in foreign markets, taking into account modern challenges and risks.

**Statement of the problem.** To achieve this goal, the article provides for the solution of the following tasks:

- to study the impact of the instability of the external environment on the foreign economic activity of agricultural enterprises;
- to determine the key factors in the formation of the export potential of agricultural enterprises;
- to substantiate the directions of adaptation of business processes to the conditions of functioning in foreign markets;
- to propose strategic approaches to strengthening the competitiveness of agricultural exports.

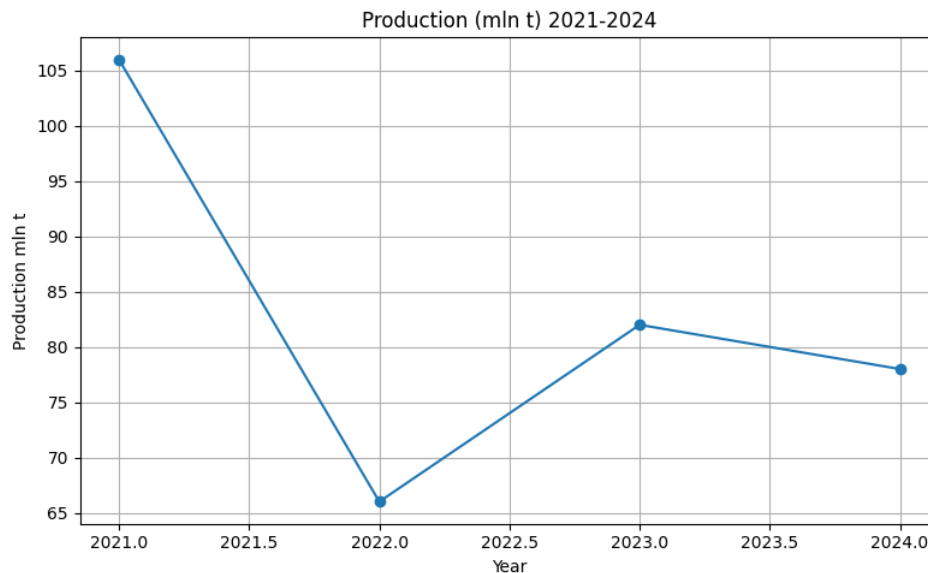
**Presentation of the main material.** Functioning of agricultural enterprises of Ukraine in the field of foreign economic activity in 2022–2024 occurred under the influence of unprecedented destabilizing factors. If in 2021 the agricultural sector provided about 41–44% of the state's foreign exchange earnings, then in 2023–2024. its share increased to 58–60% of total merchandise exports. This indicates not only structural transformations of the national economy, but also the growing dependence of macroeconomic stability on the effectiveness of agricultural exports. In the pre-war period, Ukraine was one of the three world exporters of sunflower oil (more than 45–50% of the world market), provided about 10% of world exports of wheat and more than 15% of corn. The record harvest of 2021 (more than 106 million tons of grains and oilseeds) formed a significant export potential. However, already in 2022, the gross grain harvest decreased to about 65–67 million tons, that is, by more than a third. At the same time, grain exports in 2022/23 decreased to 35–37 million tons compared to more than 48 million tons in the previous period [9].

The analysis of the commodity structure of exports shows a shift from the traditional dominance of grain crops towards oilseeds and products of their processing, which was a response to changes in logistics conditions and market conditions. In 2023, Ukraine exported more than 5.6 million tons of sunflower oil, which indicates a high level of processing of agricultural products, as well as maintaining its position in the global oilseed markets.

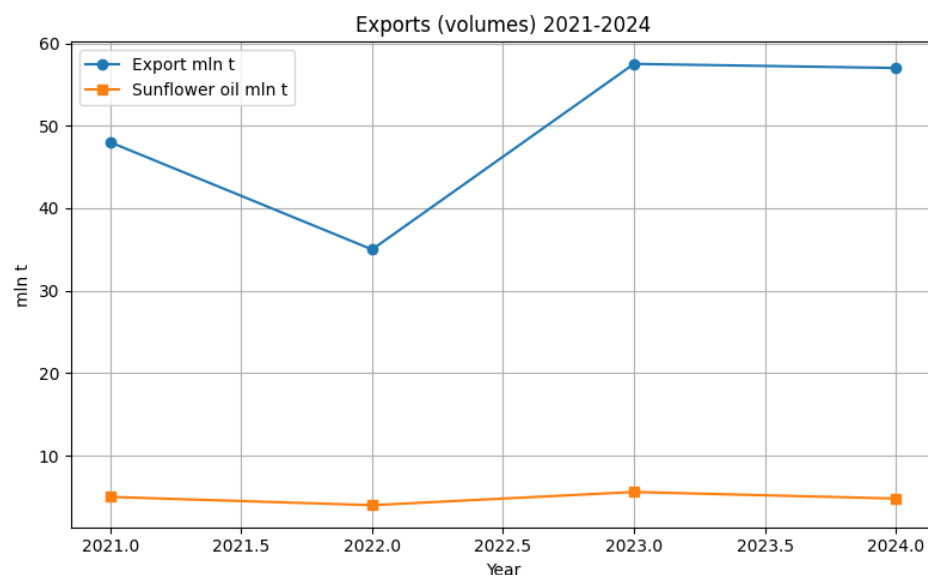
The geography of foreign economic activity has also undergone changes. Compared to the pre-war years, when a significant part of agricultural exports was directed to Asia and Africa, during the war, the share of supplies to the markets of the European Union increased, while experts note significant competition and the need to meet strict quality standards.

The general data of the state statistics of Ukraine confirm the resumption of foreign economic activity in 2024: exports of goods in general grew and approached the level of \$41.7 billion (of which a significant share was occupied by agri-food products, which accounted for about 60% of total exports). This indicates the resilience of the agricultural sector even in the face of losses of production resources and logistics restrictions.

The resumption of maritime logistics within the framework of the "grain initiative" made it possible to export about 33 million tons of products, which became critical for stabilizing the market. In 2023/24 MY, exports of grains and oilseeds increased to 57.5 million tons, and foreign exchange earnings from agricultural exports exceeded USD 17.8 billion. USA. At the same time, the structure of exports was transformed: the share of oilseeds and products of their processing increased. In 2023, sunflower oil exports exceeded 5.6 million tons, which confirms the gradual transition from a raw material to a partially processed model.



**Figure 1.** Dynamics of agricultural production in 2021–2024



**Figure 2.** Export dynamics (grain and sunflower oil) in 2021–2024

Geographical diversification has also acquired new features. If earlier the key markets were the countries of Asia and North Africa, then in 2022-2024. the EU's share in the structure of exports increased to more than 50%. This has strengthened the requirements for compliance with quality standards (HACCP, ISO, Green Deal requirements), environmental friendliness of production and traceability of supply chains [10].

In such conditions, it is advisable to consider the export potential as an integrated system, including: production capacity (yield, technologies, innovations); financial stability (access to credit, currency hedging); logistical adaptability (alternative corridors, multimodal transportation); institutional support (customs simplifications, state guarantees); strategic flexibility of management.

Risk management is of particular importance. In 2022–2023. Transportation costs increased by 2–3 times, which directly affected the margin of exports. Currency fluctuations and credit constraints made financial planning difficult. At the same time, enterprises that quickly diversified logistics routes (railway corridors to Poland, Romania, and Danube ports) were able to partially compensate for the losses.

Thus, the mechanism of adaptation of foreign economic activity has a systemic character and provides: Identification of risks (logistics, currency, regulatory); Assessment of alternative market opportunities; Business process reengineering; Strategic diversification of exports; Focus on products with higher added value.

For quantitative assessment, it is proposed to determine the integral indicator:

$$EP = w_1P + w_2F + w_3L + w_4I + w_5S; \quad (1)$$

where: P is the production index, F is the financial index, L is the logistics index, I is the institutional index, S is the strategic index,  $w_i$  is the weighting factors ( $\sum w_i = 1$ ).

The scales are determined by the expert method, taking into account the impact of each block on export results: P = 0,30; F = 0,25; L = 0,20; I = 0,10; S = 0,15

Normalization of indicators is carried out according to the formula min-max.

The proposed integral model for assessing export potential will look like:

$$EP = 0,30P + 0,25F + 0,20L + 0,10I + 0,15S$$

The calculated data are presented in Table 1 and in Fig. 3

**Table 1.** Results of calculation of the integral index of export potential

Year	Production, mln t	Export, mln t	Export, bln usd	Logistics index	Financial index	Institutional index	Strategic index	P	F	L	I	S	EP index
2021	106.0	48.0	27.7	0.9	0.85	0.6	0.45	0.8875	0.94	0.9	0.6	0.45	0.8087
2022	66.0	35.0	20.0	0.35	0.5	0.55	0.4	0.0	0.3333	0.35	0.55	0.4	0.2683
2023	82.0	57.5	17.8	0.7	0.65	0.6	0.55	0.58	0.26	0.7	0.6	0.55	0.5215
2024	78.0	57.0	24.5	0.75	0.7	0.65	0.6	0.36	0.6861	0.75	0.65	0.6	0.5845

Source: calculated by the author on the basis of statistical data.

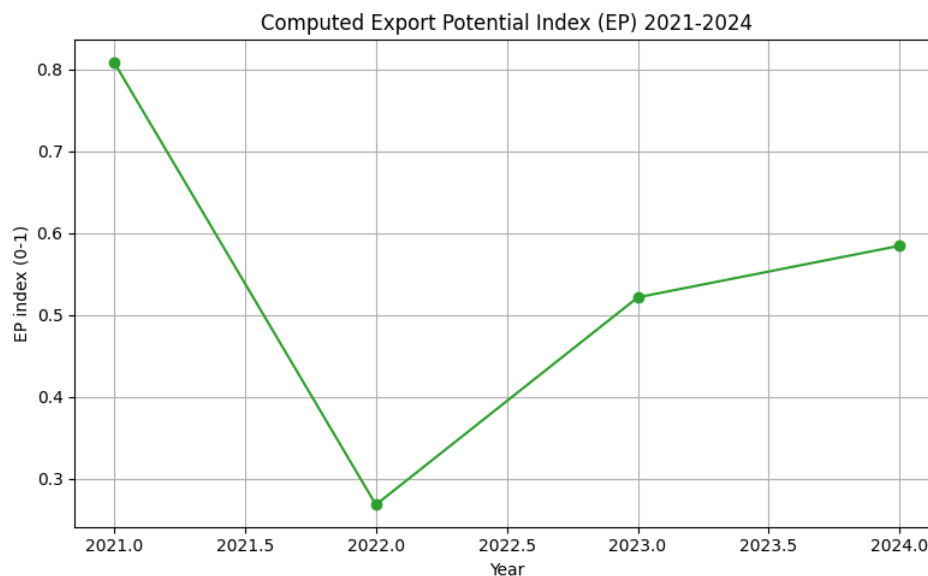
The obtained EP index values indicate a decrease in the indicator from 0.81 in 2021 to 0.27 in 2022, with a further increase to 0.58 in 2024, which confirms the partial adaptation of the agricultural sector to instability.

The calculation of the integral index showed:

- 2021 – high level of export potential;
- 2022 – a sharp drop (due to a logistical collapse);
- 2023–2024 – gradual recovery.

The calculation of the integral index of export potential showed a sharp decline in the indicator in 2022 and its gradual recovery in the following years. Logistical and financial factors had the greatest impact. The logistics block turned out to be the most sensitive to crisis changes. It was he who caused the largest variation of the integral index. Regression analysis showed that the coefficient of export elasticity according to the logistics index exceeds the corresponding indicator for the production unit, which confirms the decisive role of infrastructure support in the conditions of the war economy.

The resilience of the agricultural sector is confirmed by the fact that in 2024, Ukraine's total exports of goods approached USD 41.7 billion, of which about 60% were agri-food products. This indicates the preservation of the role of agricultural enterprises as a key driver of economic stability of the state even in the face of war risks.



**Figure 3.** Integral Export Potential Index (EP) 2021–2024

The functioning of agricultural enterprises of Ukraine in foreign markets takes place in conditions of high dynamism and uncertainty. The instability of the external environment is manifested through a combination of economic, political, institutional and market factors that directly affect the results of foreign economic activity. These factors include fluctuations in global prices for agri-food products, changes in exchange rates, tightening of non-tariff restrictions, complication of logistics, and increasing requirements for environmental friendliness and traceability of production.

Under these conditions, the export potential of agricultural enterprises is formed not only due to production volumes, but also due to the ability of enterprises to ensure stable product quality, effectively manage costs and quickly adapt to the requirements of foreign markets. Thus, it is advisable to interpret the export potential as a dynamic system that combines production, financial, managerial and market components.

Table 2 systematizes the key factors in the formation of the export potential of agricultural enterprises. It reflects the multidimensional nature of export capacity, which depends not only on resource provision, but also on the quality of management decisions, the level of state support and the efficiency of market interaction. The proposed classification allows you to identify the most vulnerable elements of the export potential and determine the directions of its strengthening.

**Table 2.** Key factors in the formation of the export potential of agricultural enterprises

<i>Group of factors</i>	<i>Characteristics</i>
Production	Volumes and stability of production, technological level
Economic	Cost, pricing, access to financing
Institutional	State support, customs and tariff regulation
Managerial	Strategic planning, risk management
Market	Diversification of sales markets, marketing channels

The issue of adaptation of business processes of agricultural enterprises to the conditions of instability is of particular relevance. Key business processes that require transformation include export logistics, product quality and safety management system, financial planning and management of foreign economic contracts. Insufficient coordination of these processes leads to an increase in costs and a decrease in the competitiveness of agricultural products in world markets.

Adaptation of business processes of agricultural enterprises involves the transformation of logistics, quality control system, management of contracts and financial flows. Of particular importance is the introduction of strategic management focused on long-term maintenance of positions in foreign markets. Adaptation of foreign economic activity of agricultural enterprises is systemic and involves: Identification of external risks; Assessment of alternative market opportunities; Reengineering of logistics and contract processes; Diversification of sales markets; Focus on products with higher added value.

Strategic export management should be based on long-term planning, currency risk management and integration into global value chains. It reflects a logical sequence of managerial actions, which begins with the identification of external challenges and risk assessment, moves to the adaptation of key business processes and ends with the formation of strategic decisions aimed at strengthening export potential. enterprises in foreign markets. The implementation of this mechanism contributes to increasing the flexibility of agricultural enterprises and their ability to quickly respond to changes in world market conditions.

Strategic management of foreign economic activity provides for the diversification of sales markets, the development of long-term partnerships, the introduction of innovative technologies and the focus on the export of products with greater added value. It is the combination of a strategic approach with adaptive business process management that allows agricultural enterprises to minimize the negative impact of instability and realize their export potential.

**Conclusions.** In the course of the study, it was found that the foreign economic activity of agricultural enterprises of Ukraine in 2022–2024. developed in the context of systemic instability, which manifested itself in production restrictions, logistical gaps, currency fluctuations and increased regulatory requirements. Despite the sharp drop in export volumes in 2022, the agricultural sector demonstrated the ability to adapt, which is confirmed by the partial recovery of export indicators in 2023–2024. and maintaining the dominant share of agri-food products in the structure of national exports.

The expediency of considering the export potential as an integrated multicomponent system, in which the logistics component plays a decisive role in the conditions of the war economy, is substantiated. The proposed integral model for assessing the export potential allows quantifying the level of its implementation and identifying the most vulnerable blocks.

It has been proved that strengthening the export potential of agricultural enterprises requires a comprehensive transformation of business processes, diversification of sales markets, development of internal processing and implementation of strategic risk management. Further scientific research should be directed to the development of forecast scenarios for the development of agricultural exports and the improvement of economic and mathematical models for assessing the impact of key factors on export performance.

## References

1. Petrenko O. (2025) The impact of the full-scale war on agricultural performance in Ukraine. Social Sciences Department Kyiv School of Economics. Available at: <https://kse.ua/wp-content/uploads/2025/06/Petrenko-Oleksandr-BE25-THE-IMPACT-OF-THE-FULL-SCALE-WAR-ON-AGRICULTURAL-PERFORMANCE-IN-UKRAINE.pdf> (accessed: 5 February 2026).
2. Synhaievska D. (2025) The Geopolitics of Grain: Ukraine's Role in Global Food Security and the Costs of War. *UkraineWorld*. June 27. Available at: <https://ukraineworld.org/en/articles/analysis/geopolitics-grain-ukraines-role> (accessed: 5 February 2026).
3. FAO. 2024. *The State of Agricultural Commodity Markets 2024 – Trade and nutrition: Policy coherence for healthy diets*. Rome. Doi: <https://doi.org/10.4060/cd2144en>.
4. Countryman A. M., Litvinov V., Kolodiaznyi I., Bogonos M., Nivievskiy O. (2025) Global economic effects of war-induced agricultural export declines from Ukraine. *Applied Economic Perspectives and Policy*, vol. 47, no. 2. pp. 624–665. Doi: [10.1002/aapp.13468](https://doi.org/10.1002/aapp.13468).
5. Shubravskaya O. (2021) Specialization of agri-food exports of Ukraine: trends, drivers, prospects. *Economy of Ukraine*, 64 (4 (713)), pp. 51–67. Doi: <https://doi.org/10.15407/economyukr.2021.04.051>.
6. Faychuk O., Konoplyastyi A. (2025) Formation of strategic directions for the development of foreign economic activity of an agricultural enterprise in the conditions of European integration (on the example of the agricultural holding "Astarta"). *Economy and society*, no. 77. Doi: [10.32782/2524-0072/2025-77-37](https://doi.org/10.32782/2524-0072/2025-77-37).
7. World Bank. *Ukraine: The impact of the war on agricultural profitability – Problem number one (Ukrainian)*. Washington, D.C. World Bank Group. Available at: <http://documents.worldbank.org/curated/en/099062524074539069> (accessed: 5 February 2026).
8. Porter M. E. (2008) *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
9. State Statistics Service of Ukraine. 2025. Available at: <https://stat.gov.ua/uk> (accessed: 5 February 2026).
10. Cheremisina S., Rossokha V., Selinnyi M., Balan O., Nahornyi V. (2025) Assessment of structural changes in exports and price situation on the Ukrainian grain market during the war. *Ekonomika APK*, vol. 32, no. 2, pp. 50–62. Doi: [10.32317/ekon.apk/2.2025.50](https://doi.org/10.32317/ekon.apk/2.2025.50).

## Список використаних джерел

1. Petrenko O. The impact of the full-scale war on agricultural performance in Ukraine. Social Sciences Department Kyiv School of Economics. 2025. URL: <https://kse.ua/wp-content/uploads/2025/06/Petrenko-Oleksandr-BE25-THE-IMPACT-OF-THE-FULL-SCALE-WAR-ON-AGRICULTURAL-PERFORMANCE-IN-UKRAINE.pdf> (дата звернення: 05.02.2026).
2. Synhaievska D. The Geopolitics of Grain: Ukraine's Role in Global Food Security and the Costs of War. *UkraineWorld*. June 27, 2025. URL: <https://ukraineworld.org/en/articles/analysis/geopolitics-grain-ukraines-role> (дата звернення: 05.02.2026).
3. FAO. 2024. *The State of Agricultural Commodity Markets 2024 – Trade and nutrition: Policy coherence for healthy diets*. Rome. Doi: <https://doi.org/10.4060/cd2144en>.
4. Countryman A. M., Litvinov V., Kolodiaznyi I., Bogonos M., Nivievskiy O. Global economic effects of war-induced agricultural export declines from Ukraine. *Applied Economic Perspectives and Policy*. 2025. Vol. 47. No. 2. P. 624–665. Doi: [10.1002/aapp.13468](https://doi.org/10.1002/aapp.13468).
5. Шубравська О. Спеціалізація агропродовольчого експорту України: тенденції, драйвери, перспективи. *Економіка України*. 2021. 64 (4 (713)). С. 51–67. Doi: <https://doi.org/10.15407/economyukr.2021.04.051>.
6. Файчук О., Коноплястий А. Формування стратегічних напрямів розвитку зовнішньоекономічної діяльності сільськогосподарського підприємства в умовах євроінтеграції (на прикладі агрохолдингу «Астарта»). *Економіка та суспільство*. 2025. № 77. Doi: [10.32782/2524-0072/2025-77-37](https://doi.org/10.32782/2524-0072/2025-77-37).
7. World Bank. *Україна: Вплив війни на рентабельність сільського господарства - Проблема номер один (Ukrainian)*. Washington, D.C. : World Bank Group. URL: <http://documents.worldbank.org/curated/en/099062524074539069> (дата звернення: 05.02.2026).
8. Porter M. E. *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press, 2008.
9. Державна служба статистики України. 2025. URL: <https://stat.gov.ua/uk> (дата звернення: 05.02.2026).
10. Cheremisina S., Rossokha V., Selinnyi M., Balan O., Nahornyi V. Assessment of structural changes in exports and price situation on the Ukrainian grain market during the war. *Ekonomika APK*. 2025. Vol. 32. No. 2. P. 50–62. Doi: [10.32317/ekon.apk/2.2025.50](https://doi.org/10.32317/ekon.apk/2.2025.50).