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# DETERMINANTS OF UKRAINIAN ECONOMIC AND FOOD SECURITY DEVELOPMENT UNDER THE CONDITIONS OF MARTIAL LAW

## ABSTRACT

The aim of the study is to find out the determinants of economic development and food security in Ukraine under martial law. The relevance of this topic is determined by the agricultural orientation of the Ukrainian economy and the problems of exporting under war conditions, which can lead to famine all over the world and a decrease in cash receipts in the budget of Ukraine. The main results of the research showed that until now Ukraine was focused on the production of low value-added goods. In addition, a significant decrease in GDP during the war and the study of the experience of the Second World War made it possible to assume that the economic decline was caused not only by war factors but also by structural imbalance and the raw nature of the economy. The agro-industrial complex of our country, on the one hand, can ensure food security, both within the country and in the world, but taking into account recent events, this is not always possible. It is worth noting that Russia increased wheat exports, and Ukraine, on the contrary, was forced to reduce it. Also, a ban on the export of Ukrainian agricultural products in some countries of the EU until June 5, 2023, caused a great resonance in society due to negative economic consequences. It was proposed to extend this ban, which cannot have a positive effect on the economy of our country. Taking this into consideration, it is necessary to change the entire economic course of the country, which should take into account national economic interests, security determinants, reduce dependence on external factors, and balance the structure of the economy. The export of agricultural products should be carried out not only due to the interests of the EU but also the national interests of Ukraine.

**Keywords:** food security, wartime economy, agro-industrial sector, GDP, exports, military spending, FAO

**JEL Classification:** O11, O13, Q11, Q18, F14, F15

## INTRODUCTION

February 24, 2022, was the beginning of a stage in the modern history of Ukraine, a stage of heroic resistance to full-scale Russian aggression, and the future of our country is currently determined at the front, therefore the state of today's wartime economy of Ukraine depends on the effectiveness of the actions of our army, the support of our allies, and the effectiveness of the actions of our state institutions. Economic assessments of losses and prospects depend on the abovementioned and will be able to be realistically assessed only after our victory and the end of military operations, but this does not exclude the need to establish priorities for the formation of the post-war economy of Ukraine and the new economic history of Ukraine. This is what determines the relevance of this scientific research, its purpose and its task. Currently, it is important to study the current state of the country's economy as a whole, its structure and the possibility of ensuring food security in our country. The issue of food security is also important because of the role it plays not only in our economy but also in the whole world, because the war in our country, and the blockade of the export routes of grain and other agricultural products showed how much other countries depend on our exports. The world is facing a food crisis. But, despite this, we have to focus on our own needs and strengthening the domestic economy in order to be able to provide, first of all, ourselves.

The basis of the post-war reconstruction strategy should be changing the structure of the economy in accordance with national interests, improving the quality of life of Ukrainians, including security guarantees, and gaining Ukraine the status of a leading player in the global market, which should ensure the mechanisms of the state's institutional ability to win on the economic front. We cannot win a military action and lose an economic war, and such facts have already happened in human history. For this, it is also necessary to change the systemic approaches to the assessment of economic phenomena and results, since the system used in the industrial economy, mainly through GDP, does not take into account quality indicators of the population's life, socio-political problems, environmental impact, production efficiency, consumer price index reflects the change in the value of the "consumer basket", and taking into consideration the individualization of consumption, it can be completely different for different groups of consumers, which raises many questions about the average inflation indicator.

## LITERATURE REVIEW

Various domestic and international scientists paid attention to the issues of economic and food security development under war conditions. Among the Ukrainians, we can single out Kovalova O., Vytvytska O., Rybchinsky R., Kupchenko A., and Tkachenko S., who, as part of their scientific research, developed scientific and methodological provisions and practical proposals for improving food safety monitoring indicators for the purpose of prompt management decisions [1]. Lagodienko V., Franchuk V., Dzyurakh Yu., Melnyk S., Shuprudko N., and Gobela V. determined the general level of food security in Ukraine and proposed the main directions for its improvement [2].

Béné C., Bakker D., Chavarro M. J., Even B., Melo J., and Sonneveld A. conducted the first global assessment of the impact of COVID-19 on the global food system and its players. The main focus of this study was on food security and nutritional status in low- and middle-income countries affected by the pandemic [3]. This study is important for analysis, as it reflects the state of things with food security in different countries of the world after the pandemic and the fact that the war in Ukraine may escalate due to the inability to supply agro-food products.

Nabuuma D., Reimers C., Hoang K. T., Stomph T. J., Swaans K., Raneri J. E. also investigated the effects of seed supply on food security, household resilience, nutrition quality, etc. [4].

Kurman T.V. investigated the issue of legal support and functioning of the agro-food sector in the conditions of martial law in Ukraine [5], where she came to the conclusion that the problem of forming a holistic mechanism for legal support of food security in Ukraine is extremely urgent.

Blagopoluchna A., Tananaiko T. et al. and Zakharchuk O. et al. studied the issue of introducing grain corridors to ensure food security in the war in Ukraine [6-8].

Ben Hassen T. and El Bilali H. investigated the extent to which the war in Ukraine will affect international food security, since many countries of the world, and especially the Middle East and North Africa, depend on the import of agricultural products, including imports from Ukraine [9].

In addition, the issues of economic changes and food security in the conditions of war in Ukraine become the object of research for the Maddison Project Database, which provides analytical data, including historical [10]; The EBRD, which is already assessing the scale of the consequences and the necessary amount of investment to restore the economy [11-13]. The Stockholm International Peace Research Institute provides statistical information on arms expenditures and analyzes global arms expenditures [14, 15].

Other Ukrainian and global analytical agencies and agro-food portals also analyze the consequences of the war in Ukraine for global food security, factors affecting economic income to Ukraine, measures taken by the EU to settle food security issues in various countries, the actions of the FAO in ensuring food security in the world, etc. [16-20].

The study of these literary sources made it possible to systematize the assets of scientists and analysts and to draw conclusions regarding the definition of determinants that affect the economic development and food security of Ukraine under martial law. In addition, it is worth noting that the main focus of the attention of scientists is the study of the issues of ensuring food security in the world, taking into account the war in Ukraine, and not the study of economic issues, the structure of our country's economy, the identification of "narrow" points that have negative consequences on the dynamics of economic indicators in the current situation. This scientific study is dedicated to this issue.

## AIMS AND OBJECTIVES

The aim of our study is to identify the determinants of economic development and food security in Ukraine under martial law. The tasks of the research are to study the changes in the GDP of Ukraine under the conditions of martial law, the structure of the country's economy; study the state of the agro-food sector of Ukraine's development under the conditions of war; determination of the main factors that affect the development of economic processes in the country and the state of its food security.

## METHODS

In this study, to achieve the aim and objectives the following methods were used: analysis and synthesis for familiarization with literary sources, the main components of the research object; comparative method and historical method - in the study of GDP dynamics during the Second World War; statistical method - in the study of statistical analytical data; graphical and tabular methods - while visualizing statistical research data; generalization for formulating discussion points, conclusions and putting forward proposals.

## RESULTS

According to the government's estimates, the national economy has fallen by approximately 30% by the end of 2022, and some sectors of the economy have suffered much more. In the absence of the same export opportunity that the grain agreement reached with the mediation of the UN and Turkey gave to the Ukrainian agricultural sector, the metallurgical export of millets fell by 62%. Grain, sunflower oil and other agricultural products have become the main items of Ukrainian exports and generate a significant part of foreign exchange earnings from the export of goods. In the structure of Ukraine's exports in recent years, agriculture, metallurgy and services (including revenues from gas transit) dominate. The structure of the economy of Ukraine (2021) shows that among the sectors, the largest share of the Ukrainian economy is wholesale and retail trade (13.8%), agriculture/forestry/fishery (10.6%) and processing industry (10.3%) and 6.7% mining and quarrying, confirming the need to transition to a high value-added economy. The drop in Ukraine's GDP by a third cannot be explained solely by military factors.

During the Second World War, for the years 1941–1945, such volume of GDP decline was not recorded (Table 1), nor in Germany (1941 +6.3%, 1942 +1.3%, 1944 +2.5%, 1945 -28.9%), not in the USSR (1941 -13.9%, 1942 -23.7%, 1944 +18.7%, 1945 - 5.2%) and although today's military aggression of the Russian Federation and the conditions of the war are radically different, the need to reform governance at the state level is undeniable, since the above-mentioned 30% decrease in GDP in Ukraine calls into question that it is caused solely by military factors since structural imbalances economy and the raw nature of the economy is an important factor in the vulnerability of any economic system.

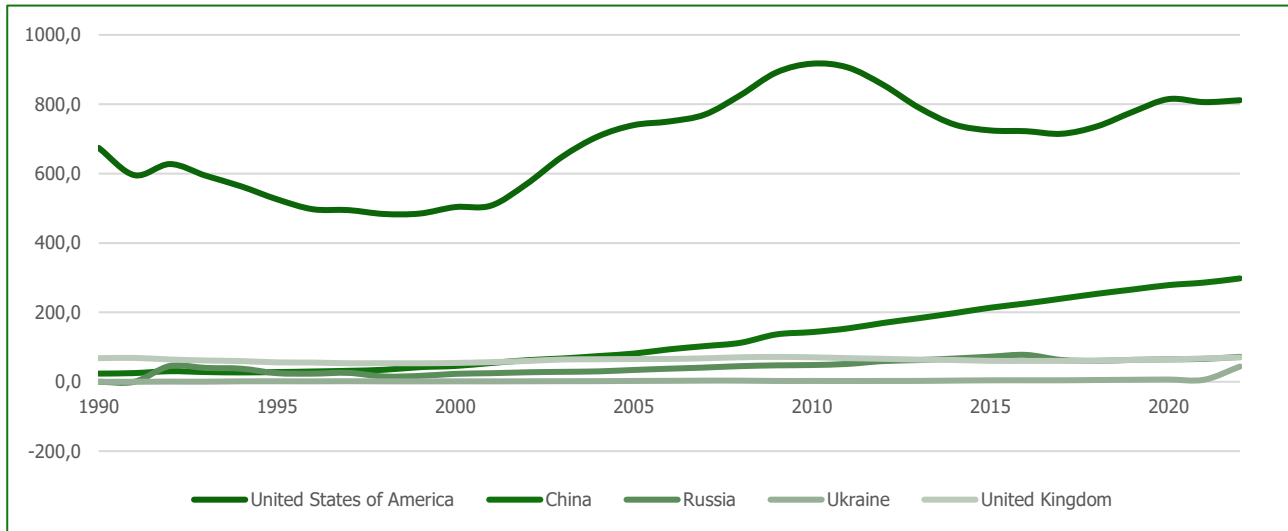
**Table 1. Dynamics of GDP, 1941-1945, % year to year.** (Source: [10])

Countries	1941	1942	1944	1945
Germany	6.3	1.3	2.5	-28.9
USSR	-13.9	-23.7	18.7	-5.2
Italy	-1.2	-1.2	-18.8	-21.7
France	-20.9	-10.4	-15.5	8.4
United Kingdom	9.1	2.5	-3.9	-4.4
United States	18.2	20.0	8.4	-4.0

According to the EBRD, "only 29% of post-conflict economies reach pre-war levels of GDP per capita within five years. For Ukraine to recover within five years, the economy would have to grow by 14% per year throughout this period. This will increase average GDP to USD 225 billion from approximately USD 150 billion in 2022 at constant prices" [11].

Due to the Stockholm International Peace Research Institute, global military spending in 2022 grew by 3.7% and reached a record USD 2.24 trillion. In Europe, growth was 3.6%, which has not been seen since the end of the Cold War. Researchers connect this with the war in Ukraine. Today, military spending is 2.2% of global GDP, and this indicator is expected to increase against the backdrop of promises of new arms purchases, inflation, the continuation of the war with

russsia, and tense relations between the United States and China [14]. The expenditures of various countries of the world, including Ukraine and russia, on armaments during 1990-2022 are shown in Figure 1.



**Figure 1. Expenditures on armaments of different countries of the world, 1990-2022, constant prices, USD bn.** (Source: generated by the authors based on [15])

As can be seen from the figure, the largest expenditure on weapons during the analyzed period was in the USA, which grew significantly in 2010. Other countries, which are listed during a certain period of time, did not fluctuate a lot and differ by large indicators, but China, starting from 2005, reflects the growth of this type of expenses. Thus, in 2022, the indicator of this country increased by 3.6 times compared to 2005, which is a strong indicator of the orientation of the Chinese economy. In Ukraine, this item of expenditure was insignificant, but precisely with the beginning of the large-scale invasion in 2022, it increased by 7.5 times compared to 2021. But in order to increase military spending and ensure security, Ukraine generally needs monetary resources, which, taking into account the above-mentioned data is currently not sufficient.

Additionally, among the main requests of the population, businesses, and investors, which have to be guaranteed by the state, there will be, of course, the request for security, which is constantly growing along with the constant increase in the price of human life, these are various forms of security from wars, fires, tornadoes, terrorism, cyber-attacks, hunger. Military operations conducted by the Russian Federation on the territory of Ukraine are already having an extremely negative impact on the functioning of the food systems of the world and Ukraine. Thanks to domestic food exports, Ukraine has long been positioned as a guarantor of food security in many countries of the world, and the country's contribution to the world food market in 2021 was equivalent to providing food for about 400 million people. Ukraine was consistently among the top five global exporters of grains and legumes. The importance of Ukraine's role was particularly evident during the COVID-19 pandemic when global commodity supply chains were disrupted. Ukraine continued to fulfil its obligations and significantly contributed to the food security of its partners in the Middle East, Europe, Southeast Asia and North Africa.

In 2021, Ukraine joined the UN Committee on World Food Security, which reports to the UN General Assembly through the UN Economic and Social Council and the UN Food and Agriculture Organization (FAO) conference [16]. This is understandable and logical because Ukraine is one of those countries that ensures food security in the world, being a leader in the export of many agricultural crops.

If we pay attention again to the times of the Second World War, then the issues of food security were extremely relevant, as evidenced by the Hunger Plan (ger. Der Hungerplan, also der Backe-Plan) - the name of the plan of the political and military leadership of the Third Reich, the purpose of which was obtaining additional food for the German occupation troops and the population of Germany. The plan predicted that as a result of its implementation, about thirty million inhabitants of the occupied territories of the USSR would die of starvation. According to the historian Christian Gerlach, this plan was considered the official policy of the government and was consistently implemented after the attack on the Soviet Union.

The war of the Russia against Ukraine once again proved the importance and value of providing food to the population, and one of the important decisions of the United Nations Organization (03.02.2022) was an emergency call for support for Ukraine (FLASH APPEAL UKRAINE) and expressed concern about the sharp deterioration of the situation with the integrity

of the food system in Ukraine in the conditions of military aggression of the Russian Federation against Ukraine due to the abandonment by farmers and other small agricultural producers of war-affected territories.

An important fact that the world community needs to pay attention to is that when Ukraine was forced to reduce wheat exports in 2022 to 13 million tons, compared to 20 million tons in 2021, Russia increased its exports during this period from 33 million tons to 38 million tons (USDA), which raises the issue of expanding sanctions on the export activities of the aggressor country.

NASA Harvest uses satellite images to simulate the wheat harvest and according to the simulation results towards Ukraine, Russia collected in 2022 in occupied Ukrainian territories wheat by USD 1 billion (NASA Says), and this is not only a decrease in Ukraine's participation in global food security, but also a decrease in the prospects for the development of the agricultural sector, a decrease in foreign exchange earnings, and a decrease in the standard of living of the population and the level of food security in Ukraine. Also, a quarter of Ukrainian wheat is grown on lands captured by Russia, and almost 6 million tons of wheat and about 88% of winter crops sown in occupied territories were collected from territories not controlled by Ukraine, and unharvested areas were mainly along the front line [17]. The above-mentioned study raises the question of the possibility of Russian exports of grain taken from the occupied territories to countries such as Libya, Iran and other countries, although it is difficult to estimate the volume of grain since the shippers can hide the origin of the cargo, it should become an evidentiary basis in criminal prosecutions towards Russian Federation in Ukraine.

An important topic for today is the ban on the export of Ukrainian agricultural products by some EU states, which has caused a significant resonance since the main movement of exports takes place precisely through the EU states. The European Commission has taken exceptional temporary measures on the import of four agricultural products from Ukraine - wheat, corn, rapeseed and sunflower seeds - to Bulgaria, Hungary, Poland, Romania and Slovakia. The import of these goods is prohibited until June 5, 2023. Transit of goods through these countries to other EU states or outside the EU may continue. At the same time, the European Commission is ready to re-introduce these measures after June 5, while the exceptional situation persists. "These measures are necessary in view of the exceptional circumstances of serious bottlenecks in logistics faced by the five EU member states," Brussels said. At the same time, Bulgaria, Hungary, Poland and Slovakia pledged to cancel their unilateral bans on wheat, corn, rape and sunflower seeds, as well as other products coming from Ukraine, as the European Commission reported.

Players in the agricultural market of Poland say that despite the declaration of agricultural products as transit, significant volumes of grain still "settle" in the country, and the range is constantly expanding. But not everything is as simple as it seems. Despite the complaints and the strike, there is also a rather pragmatic interest in this story. Ukrainian grain is sold at a discount, although Polish processors deny this and assure that they do not wring the hands of Ukrainians who find themselves in a difficult situation [18].

What is the grain market like today and what is predicted for tomorrow – these topics were raised by world experts at the EURO GRAIN HUB international forum, which took place on April 26-28 in Bucharest. The event was organized by the company "UkrAgroConsult" and AgriPortal (Romania). "When we ask what the price trend will be - rising or falling - the answer is in Ukraine. If Ukraine exports 14 million tons of grain, there will be one result, if 5 million tons, the situation will be completely different. Of course, Europe can import something from Brazil or Argentina, but the cost of delivery is strikingly different," UZA president Mykola Gorbachev emphasized [19].

As for Ukraine, the macro forecast of the National Bank shows that export restrictions will temporarily reduce food inflation in Ukraine in 2023 due to an increase in supply on the domestic market, but this will complicate the activities of farmers and may force them to reduce crops, which will negatively affect economic activity in the future and increase pressure on the exchange rate. In addition, Turkey, Russia, Ukraine and the UN did not reach an agreement on new vessels capable of exporting grain during the negotiations on May 5.

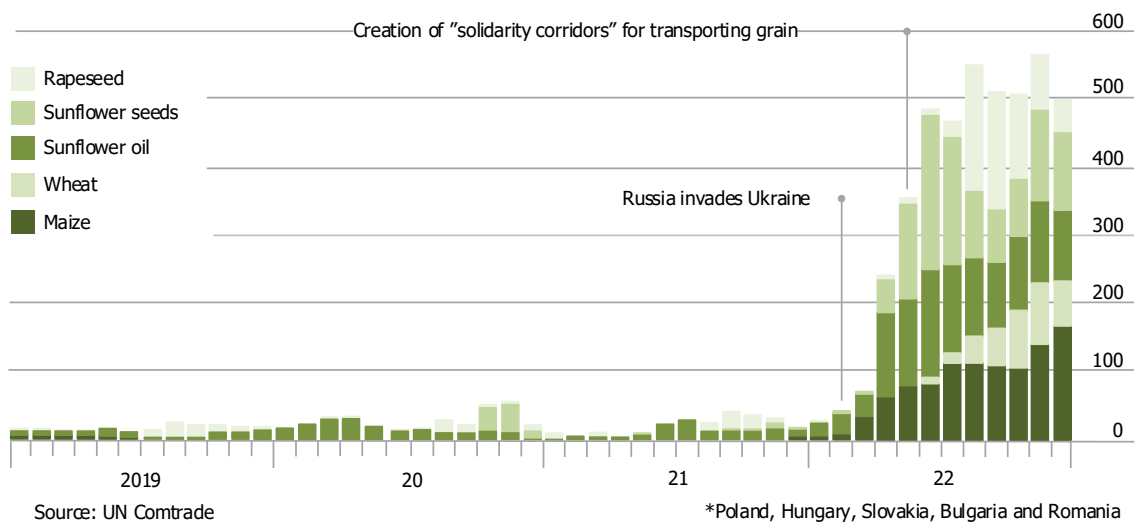
Against the background of grain export problems, it is important to emphasize the fact that Ukraine traditionally produces much more grain than it consumes, and grain consumption in Ukraine over the last five years before the war amounted to no more than 15% of the harvest, and during the war, together with the population shrinking and due to the low purchasing power of the population, domestic consumption fell even more, which led to a narrowing of the capacity of the domestic food market. In contrast to the reduction of the domestic market, the demand for the main types of Ukrainian agricultural and raw material exports on the global market remained, even increased, which allowed large producers and traders to focus mainly on the world market, even despite the volatility of its conjuncture. Not the last factor of this policy of large agribusiness was the fact that their activities were not regulated by the state in any way, and further preservation of such practice is unacceptable.

Among the peculiarities of the agricultural sector of Ukraine, the following can be distinguished:

- specialized monoculture export-oriented agriculture of raw materials;
- in 2022, the share of agro-industrial complex products in the total structure of exports increased to 53% and accounted for two-thirds of pre-war volumes (67.7%);
- the majority of agro-industrial complex products are raw materials, and the share of exports of grain crops in unprocessed form is about 60% of the grown volume;
- Ukrainian grain consumption in the last five years before the war amounted to no more than 15% of the harvest;
- Ukraine is the leader in the supply of rapeseed, sunflower seeds, sunflower schrot, sunflower oil and soybean oil to the EU;
- the share of imported high-tech goods in the structure of consumption is 68% (harvesters and other agricultural machinery or oil products, pesticides, seeds);
- reduction of production potential in livestock, primarily meat and dairy cattle breeding, led to increased dependence on imports (up to 30%) and risks to national food security;
- Ukraine is a net importer of vegetables, fruits and berries: trade balance in 2021 - USD 0.5 billion;
- a dual structure characterizes Ukraine's agriculture, with large-scale export-oriented producers and small-scale farms (often family farms);
- the war destroyed a significant part of the infrastructure, equipment and logistics;
- a significant part of agricultural land is mined.

According to the UN, five Eastern European countries - Bulgaria, Hungary, Poland, Romania and Slovakia - together imported 4 million tons of corn and 1.3 million tons of wheat from Ukraine in 2022, compared to only 23,000 tons and 3,000 tons, respectively, in 2021. In percentage terms, these increases are 17,000% and 40,000%. Imports of sunflower and rape seeds increased by 3,800% and 900% compared to last year. Imports of sunflower oil increased by 600%. The total value of imports of these five products was USD 4.3 billion in 2022, compared to only USD 260 million in 2021, an increase of more than 1,500%.

Most of the production destined for Africa and the Middle East accumulated in Eastern Europe, which led to a glut of corn, wheat and sunflower seeds. This led to a decrease in local prices.



**Figure 2. Selected agricultural products exported to neighbouring countries, 2019-2022, USD million. (Source: [20])**

In the conditions of the war, the established links of agro-food chains were destroyed, which once again proved the vulnerability of not only the current domestic model of agro-food specialization but also the modern global model of the agro-food system in general. All crises create conditions for the transformation of existing economic models, and the agricultural sector of Ukraine was at the forefront of changes due to the need for immediate, priority transformation of the model of export specialization, and today's situation with food exports to Europe suggests that the change will take place under the pressure of global factors and what impact will to have national-level factors remains, today, not entirely clear [21]. In 2019, the State Statistics Service of Ukraine developed Methodological regulations on the formation of balances of the main products of crop and livestock production, which reflect the movement of products from the moment

of production to the moment of their final use, and allow to present an overall picture of the food and agricultural situation in the country, and will contain calculations of the population's consumption of basic food products, the average daily consumption by one person of the main micro- and macroelements in food products. The methodological regulations primarily take into account the requirements and recommendations of the Food and Agricultural Organization of the United Nations (FAO) regarding the formation of food balances. It is the data on food balances that should become the basis of economic calculations for the formation of a modern and full-fledged food security system of Ukraine in the post-war economy and participation in the global food security system.

## DISCUSSION

As a result of the conducted research and study of literary sources, we can bring out the following debatable questions: at their core, scientists are investigating the issue of food security from the point of view of providing the world with food products under the war conditions in Ukraine. This can be explained by the fact that Ukraine is an important supplier and exporter of agro-food products around the world, so Russia's military aggression, blocking the transportation routes of wheat, grain and other types of agricultural products can lead to a food crisis and famine. But the issue of the structure of the economy and the state of Ukraine's food security reflected that, in addition to issues of global security, our state has to face the issue of self-sufficiency and economic independence from other countries of the world. So, for example, until a certain period of time there was a ban on the export of agricultural products to certain EU countries, which shows that, on the one hand, there is a real food threat in the world due to the war in Ukraine, but, on the other hand, not all EU countries are interested in Ukrainian agricultural products. All this has negative consequences for the development of the economy of our country.

Therefore, the issue of Ukraine's first priority to ensure its own economic growth and food security, covering its own needs, becomes a debatable issue. The conducted research showed that there are certain problems in the structure of the domestic economy, while scientists do not consider this problem, focusing only on ensuring food security in the world. It is the reorientation of the economic course of our country to the formation of a balanced structure of the economy, equalization of disparities, including and in the agro-industrial complex, the production of high value-added goods, taking into consideration the latest ecological directions of the EU in the cultivation of agricultural products will allow the formation of a stable economy that is less dependent on external determinants.

## CONCLUSIONS

The process of transformation of the agricultural sector in the conditions of the wartime economy of Ukraine and the movement towards the European Union is inevitable and has to take into account the opportunities and risks of ensuring food security in the conditions of climate change and loss of biodiversity, reducing its ecological and climatic "footprint", strengthening the sustainability of the EU food system, which are declared by the European green course from 2019 (The European Green Deal), as it will require a change in philosophy and approaches to the cultivation and processing of agricultural products. Also, in the context of national food security, it is important to provide people at all times with physical and economic access to sufficient, safe and nutritious food, regardless of whether this food is locally produced or imported; produced using traditional or innovative technologies; whether the principles of sustainability (social-economic-ecological) are observed during its production, etc.

The formation of national food security should take into account Food sovereignty, which involves relying on local food production that includes the cultural traditions of the local population, as well as the ideas of humanitarian justice, multiculturalism, and gender equality. Food sovereignty declares the achievement of the goal of providing the population with locally produced food, using at the same time certain methods, primarily agroecological.

Ensuring national food security, based on the reproduction and preservation of natural resources of agricultural production, should become the basis for a gradual transition from a highly specialized mono-product structure of agro-food production and export to a structure that takes into account national economic interests and security factors in a broad sense.

The post-war reconstruction of the Ukrainian agricultural sector and its role in ensuring global and national food security should be carried out in accordance with the concept of ecological resource-saving agriculture, corresponding to the goals of preserving and reproducing natural resources.

The war proved the falsity of the implemented policy for the development of the agricultural sector of Ukraine and the stimulation of productivity growth due to intensification and scalability through large-scale production, the reluctance to

direct the development of the agricultural sector to the deepening of processing and farms development, to adapt the legislation to EU norms.

The erroneous policy of agricultural development has led to the fact that we have problems not only due to the blocking of ports by Russia, but also the blocking of the export of agricultural raw materials by our friends and the reduction of opportunities for the development of agricultural industry in the war conditions.

The history of agricultural exports to Europe has shown that farmers will have to learn to work within the EU in such a way as to use its rules not only for their own benefit but also to ensure the stability of Ukraine's economy and provide high-quality life for Ukrainians.

## ADDITIONAL INFORMATION

### AUTHOR CONTRIBUTIONS

All authors have contributed equally

### REFERENCES

- Kovalova, O., Vytvytska, O., Rybchynskiy, R., Kupchenko, A., & Tkachenko, S. (2023). Food Security Monitoring Under Martial Law Conditions. *Financial and Credit Activity Problems of Theory and Practice*, 2(49), 274–286. <https://doi.org/10.55643/fcaptop.2.49.2023.4004>
- Lagodiienko, V., Franchuk, V., Dziurakh, Yu., Melnyk, S., Shuprudko, N., & Hobela, V. (2022). Food Security of Ukraine: Estimation of Factors' Impact, Postwar Trends and Ways to Supply. *Financial and Credit Activity Problems of Theory and Practice*, 5(46), 427–437. <https://doi.org/10.55643/fcaptop.5.46.2022.3891>
- Béné, C., Bakker, D., Chavarro, M. J., Even, B., Melo, J., & Sonneveld, A. (2021). Global assessment of the impacts of COVID-19 on food security. *Global Food Security*, 31, 100575. <https://doi.org/10.1016/j.gfs.2021.100575>
- Nabuuma, D., Reimers, C., Hoang, K. T., Stomph, T.J., Swaans, K., & Raneri, J. E. (2022). Impact of seed system interventions on food and nutrition security in low- and middle-income countries: A scoping review. *Global Food Security*, 33, 100638. <https://doi.org/10.1016/j.gfs.2022.100638>
- Kurman, T.V. (2022). Agribusiness food security: threats and issues of legal regulation in martial law. *Analytical and Comparative Jurisprudence*, 3, 122–126. <https://doi.org/10.24144/2788-6018.2022.03.22>
- Blahopoluchna, A.H. (2022). Economic Availability of Food in the Conditions of War. *Economies Horizons*, 3(21), 13–20. [https://doi.org/10.31499/2616-5236.3\(21\).2022.263549](https://doi.org/10.31499/2616-5236.3(21).2022.263549)
- Tananaiko, T., Yatsenko, O., Osypova, O., Nitsenko, V., Balezentis, T., & Streimikiene, D. (2023). Economic Rationale for Manifestations of Asymmetry in the Global Trading System. *Sustainability*, 15, 5316. <https://doi.org/10.3390/su15065316>
- Zakharchuk, O., Hutorov, A., Vyshnevetska, O., Nitsenko, V., Balezentis, T., & Streimikiene, D. (2023). Ukraine's Market of Certified Seed: Current State and Prospects for the Future. *Agriculture*, 13, 61. <https://doi.org/10.3390/agriculture13010061>
- Ben Hassen, T., & El Bilali, H. (2022). Impacts of the Russia-Ukraine War on Global Food Security: Towards More Sustainable and Resilient Food Systems? *Foods*, 11(15), 2301. <https://doi.org/10.3390/foods11152301>
- Maddison Project Database. <https://www.rug.nl/ggdc/historicaldevelopment/maddison/?lang=en>
- Zharykova, A. (2023, May, 16) The EBRD estimated the need for rapid recovery of Ukraine at 250 billion dollars of investments. *Economic truth*. <https://www.epravda.com.ua/news/2023/05/16/700171/>
- Horák, J., Bilan, Y., Dankevych, A., Nitsenko, V., Kucher, A., & Streimikiene, D. (2023). Bioenergy production from sunflower husk in Ukraine: potential and necessary investments. *Journal of Business Economics and Management*, 24(1), 1–19. <https://doi.org/10.3846/jbem.2023.17756>
- Petrychenko, V., Petrychenko, O., Fedoryshyna, L., Kravchuk, O., Korniihuk, O., & Nitsenko, V. (2022). Agricultural Production in Ukraine: Ecological Challenges and Impact on the Quality of Life. *Financial and Credit Activity Problems of Theory and Practice*, 4(45), 374–384. <https://doi.org/10.55643/fcaptop.4.45.2022.3782>



14. World military expenditure reaches new record high as European spending surges. April 2023. Stockholm international peace research institute.  
<https://sipri.org/media/press-release/2023/world-military-expenditure-reaches-new-record-high-european-spending-surges>
15. SIPRI military expenditure database.  
<https://sipri.org/databases/milex>
16. Ukrayina uviyshla do Komitetu prodovol'choyi bezpeky OON. (2021, February, 8). AgroPolit.com.  
<https://agropolit.com/news/19610-ukrayina-uviyshla-do-komitetu-prodovolchoyi-bezpeki-oon>
17. Aine Quinn, Agnieszka de Sousa. (2022, December, 3). Russia reaped USD 1 billion of wheat in occupied Ukraine, Nasa says. Bloomberg.  
<https://www.bloomberg.com/news/articles/2022-12-03/russia-reaped-1-billion-of-wheat-in-occupied-ukraine-nasa-says>
18. Shalenyi eksport. Doroha zerna cherez Pol'shchu. (2023, March, 13). Latifundist.com. The main site about agribusiness.  
<https://latifundist.com/spetsproekt/1006-shalenyi-eksport-doroga-zerna-cherez-polshchu>
19. Forum Euro Grain HUB: tsiny na zerno v Yevropi zalezhat' vid Ukrainy. (2023, May, 8). Latifundist.com. The main site about agribusiness.  
<https://latifundist.com/reportazhy/158-forum-euro-grain-hub-tsini-na-zerno-v-yevropi-zalezhat-vid-ukrayini>
20. Charting Ukraine's soaring exports to the EU. (2023, April, 27). The Economist.  
<https://www.economist.com/graphic-detail/2023/04/27/charting-ukraines-soaring-exports-to-the-eu>
21. Shevchenko, A., & Petrenko, O. (2023). Determinants of economic development of agriculture in Ukraine. *Modern Economics*, 38(2023), 186-193.  
[https://doi.org/10.31521/modecon.V38\(2023\)-28](https://doi.org/10.31521/modecon.V38(2023)-28)

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## **ДЕТЕРМІНАНТИ РОЗВИТКУ ЕКОНОМІКИ ТА ПРОДОВОЛЬНОЇ БЕЗПЕКИ УКРАЇНИ В УМОВАХ ВОЄННОГО СТАНУ**

Метою дослідження є визначення детермінант розвитку економіки та продовольчої безпеки України в умовах воєнного стану. Актуальність теми обумовлюється сільськогосподарською спрямованістю української економіки та проблемами здійснення експорту в умовах війни, що може призвести до голоду в усьому світі та зниження грошових надходжень до бюджету України. Основні результати досліджень показали, що Україна до цього часу була орієнтована на виробництво товарів із низькою доданою вартістю. Крім того, значне зниження ВВП в умовах війни та вивчення досвіду Другої світової війни дало можливість припустити, що економічний спад обумовлений не лише воєнними факторами, але й структурним дисбалансом та сировинним характером економіки. Агропромисловий комплекс нашої країни, з одного боку, може забезпечити продовольчу безпеку й усередині країни, і в світі, але з урахуванням останніх подій реалізувати це не завжди є можливим. Варто відзначити, що росія нарощувала експорт пшениці, у т.ч. й за рахунок незаконно вивезеної з окупованих українських територій, а Україна, навпаки, вимушено його скорочувала. Також у країнах ЄС до 5 червня 2023 р. діяла заборона на експорт української агропродукції, що викликало великий резонанс у суспільстві через негативні економічні наслідки. Цю заборону було запропоновано продовжити, що не може позитивно вплинути на економіку нашої країни. З урахуванням цього необхідною є зміна цілого економічного курсу країни, який має враховувати національні економічні інтереси, безпекові детермінанти, знижувати залежність від зовнішніх факторів, балансувати структуру економіки. Експорт аграрної продукції має здійснюватися з урахуванням не тільки інтересів ЄС, але й національних інтересів України.

**Ключові слова:** продовольча безпека, військова економіка, агропромисловий сектор, ВВП, експорт, витрати на озброєння, ФАО

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