

**Anastasiia Dmytrivna MOSTOVA**

Candidate of Economic Sciences,  
Associate Professor of the International Marketing Department  
Alfred Nobel University, Dnipro  
email: [a.mostovaya@duan.edu.ua](mailto:a.mostovaya@duan.edu.ua)

### **FOREIGN ECONOMIC ASPECTS OF THE STATE FOOD SECURITY**

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#### **Abstract**

**Introduction.** Current conditions of development of socio-economic relations, formation of a single Food independence requires special attention in the conditions of realization of the state food security strategy, since the implementation of the state foreign economic policy aimed at maintaining the openness of internal markets in terms of integration of Ukraine into the multilateral system of WTO food security of the state and some pressure from foreign trading partners.

**Purpose.** The purpose of the article is to develop methodological bases for guaranteeing food security and independence, the factors of their formation and to develop recommendations for guaranteeing the food security of the state under the influence of foreign economic factors.

**Methods.** The methods of system analysis and synthesis, abstract-logical, monographic, generalization, were used in the study.

**Results.** Food security and its components have been investigated. Theoretical, methodological and practical approaches to the study of food independence and food self-sufficiency as the main elements of food security are analyzed. The conclusions on the state of food security of Ukraine are formulated on the basis of indicators of food independence by main foodstuffs, self-sufficiency of basic types of foodstuffs, foreign trade in foodstuffs and balance of foreign trade in foodstuffs.

The main problems that do not allow to increase the food independence of the state are identified and those that need to be solved within the framework of the state food security strategy. The strategic tasks of the state policy for the achievement of food independence and self-sufficiency in the conditions of increasing integration of Ukraine into the system of international relations are considered. A set of measures is proposed to stimulate the development of a number of sectors of agriculture and food industry to ensure their competitiveness within the framework of the food security strategy. The necessity of using indirect instruments and mechanisms of financial support to the agricultural sector, the introduction of an effective system of foreign economic regulation in the agrarian sector, aimed at protecting domestic producers from unfair and excessive competition from foreign suppliers and promoting equipoise.

**Keywords:** food security, food independence, food security, foreign trade, agrarian sector

## **Introduction**

Food security has a key role in the socio-economic development of the state. The most priority strategic tasks of ensuring food security are stable and reliable supply of the country's population with safe and high-quality food products. The most important strategic goals of guaranteeing food security are to support the sufficiency of own production and import of high-quality food products, the stability of the supply of food products in the country, the budget affordability of food for citizens and providing the opportunity to maintain a rational consumption structure.

Solving the food problem at all levels and preventing its occurrence has always been a strategic priority of the developed countries of the world. The leading role in this task is assigned to the maintenance of food independence and self-sufficiency, which are implemented through the methods and mechanisms of strategic management, the formation of food balances, pricing in the domestic market, directions and tools for supporting the agricultural sector of the economy, ensuring the quality and safety of food and its availability to the population.

Food independence requires special attention in the context of the implementation of the state food security strategy, since the implementation of the state foreign economic policy, aimed at maintaining the openness of domestic markets in the context of Ukraine's integration into the system of multilateral regulation in the WTO, contributes to the emergence of new threats to the state's food security and certain pressure from foreign trade partners. Therefore, the priority strategic tasks should be ensuring national food security through self-sufficiency and food independence. Therefore, the relevance of the study of these issues under the influence of modern globalization processes and the integration of the state into the world economic system is beyond doubt.

The problems of ensuring national food security are highlighted in the fundamental works of domestic scientists, in particular Yu.D. Bilyk, V.I. Boyko, P.P. Borschevsky, V.I. Vlasova, O.I. Hoychuk, V.D. Humennyi, M.V. Kalinchik, S.M. Kvasha, I.I. Lukinov, B.Y. Paskhaver, P.T. Sabluk, V.M. Trehobchuk, M.Y. Khorunzhy, G.V. Cherevko, O.M. Shpychak, V.V. Yurchyshyn and others. However, the study of the key issues of state food security in modern conditions of globalization is currently carried out fragmentarily and is more focused on the role of Ukraine in global food security. While the issue of self-sufficiency and food independence has not been thoroughly investigated.

## **Research objective**

The purpose of the article is the development of methodological principles for guaranteeing food self-sufficiency and independence, their factors, and the development of recommendations for guaranteeing food security of the state under the influence of foreign economic factors.

## **Results**

The scientific category "food security" in global practice reflects the trends and conditions of the global food market, the food supply of country or region. The introduction of the concept of "food security" into international practice caused by the problem of food supply during the grain crisis of 1972-73. In 1974, the UN General Assembly officially declared the term "world food security", which meant "ensuring stability in food markets and the availability of basic food products for all countries of the world" [1]. Later, in the 80s of the XX century, food security meant not only the availability and affordability of food

in the world, but also the sufficiency of food to enable people to lead active and healthy lifestyles.

The World Food Council of the United Nations established a modern approach to defining national food security, which is understood as "state policy aimed at achieving the maximum level of food self-sufficiency by increasing the volume of food production, improving the supply of food products, ensuring the consumption of products by the population, eliminating malnutrition and hunger" [2].

According to the materials published by the Food and Agriculture Organization of the United Nations (FAO), food security is "ensuring the guaranteed access of the population of the world, country, region to foods at any time and in quantities sufficient to lead an active and healthy lifestyle, provided by domestic production and import of foods, the production of which is impossible at the expense of internal resources" [3]. The FAO materials contain the most complete and comprehensive definition of food security among international legal acts.

According to the Law of Ukraine No. 1877-IV dated 24.06.2004 "On State Support of the Agriculture in Ukraine", food security of Ukraine is "the protection of vital human interests through the state's guarantee of free economic access to food products for the purpose of maintaining life" [4]. According to the Draft Law of Ukraine No. 8370-1 dated 04.28.2011 "On Food Security of Ukraine", food security is determined by the socio-economic and ecological factors of the country, in which all its citizens are provided with food stably and guaranteed in the required quantity, assortment and appropriate quality [5].

However, the definitions of the cited fundamental works and legislative documents do not mention the possibility of strategic provision of the country's food security in the long term, taking into account foreign economic factors.

In the studies of Western economists, the problem of food security is often considered only at the international level, without taking into account national or regional aspects [6]. Food security is defined, first of all, as "the state of the economy, which ensures the achievement of guaranteed access of all residents and at any time to food in the amount necessary for an active healthy life" [7], or as "the dependence of human consumption, families, social groups from what they can buy to meet their nutritional needs" [8]. Foreign specialists have not fully disclosed the issue of the essence of food security and ways of solving the problem of its unsatisfactory state. It is explained by a general approach to studying this phenomenon and not taking into account the specifics of the domestic production of individual countries. However, foreign scientists mainly research the issues of food security and availability of food on a global scale, leaving open the issues of national food security.

Ukrainian scientists tend to characterize food security as the country's ability to guarantee the satisfaction of citizens' food needs under any conditions. In addition to the fact that food security must guarantee and sufficiently provide the inhabitants of the country with high-quality food products, it, in turn, conditions the stability and quality of the nation's gene pool, is determined by the level of development of the national agricultural sector and its state support, the state of land legislation, forms of ownership and management, as well as the income of the population [9].

Some scientists define "food security as the degree of provision of the country's population with ecologically clean and healthy food products of domestic production according to scientifically based norms and affordable prices while preserving and improving the living environment" [10].

Food security should be determined from the standpoint of the state's guaranteed satisfaction of the demand for food at a level sufficient to ensure the normal physiological and intellectual level of the population's life. Food security should be one of the important

components of the national economic policy. It consists in the state's ability to guarantee the satisfaction of food demand at a level that allows maintaining a normal physical and intellectual level of the population's life. The level of food security is considered sufficient if all citizens at any time have physical and economic access to safe and nutritious food to meet their own food needs for a healthy and active lifestyle [11].

Taking into account the results of the terminological analysis, as well as the research of legal sources, we propose to define food security as the location of food production and the formation of state food reserves in accordance with the strategic advantages of the country and foreign economic policy, which will ensure guaranteed access to food products for the population of the country in the quantity and quality of scientifically based medical norms.

According to the draft Law of Ukraine No. 8370-1 "On Food Security of Ukraine" dated 04.28.2011, food independence of Ukraine is a condition of food security in which the physical and economic availability of vital food products for the population is ensured at the expense of domestic production of these products and state stocks material reserve, at a sufficient level [5]. Food independence is characterized by such a level of economic development that the country is able to ensure food security in cases of complete or partial cessation of external food supplies.

Food independence is also understood as the level of annual production of vital food products produced within the country at the current level of development of productive forces, in accordance with the targeted set of basic food raw materials and food products recommended by health care authorities as a rational (minimum) consumption rate [12].

Food independence for an individual product is calculated in accordance with the methodology for determining the main indicators of food security, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 05.12.2007 No. 1379 "Some issues of food security". It is equal to the ratio of the volume of imports and the capacity of the domestic market in natural terms. The limit maximum criterion is set at the level of 30% [13]. Table 1 shows the dynamics of food independence by basic food products in Ukraine.

Table 1. Food independence by basic food products, %

Foods	2015	2016	2017	2018
Meat and meat products	7,26	8,31	10,63	11,42
Milk and milk products	0,87	1,18	1,56	1,86
Eggs	1,59	0,76	1,05	0,72
Sugar	0,26	0,35	0,54	0,22
Oil	30,42	43,95	48,19	34,13
Potatoes	0,29	0,45	0,39	0,88
Vegetables, water-melons, melons and gourds	1,38	1,95	1,91	4,18
Fruits, berries and grapes	27,02	34,59	36,60	45,68
Bread products	4,31	5,58	5,97	6,67

Source: compiled by author according to the data [14]

Analysis of the table allows us to conclude that food independence exceeds the 30% level for such food products as oil and other vegetable fats and fruits, berries and grapes. In general, it can be stated that in Ukraine, food independence has been ensured for almost all types of food at a high level in recent years. The population's needs for vital food products are met at the expense of domestic production.

Food self-sufficiency involves the satisfaction of the main part of the population's food needs at the expense of domestic production, which determines the food independence of the state in meeting the basic food needs of its citizens.

The need to guarantee food security requires maintaining an appropriate level of food self-sufficiency, subject to the use of effective state support for domestic producers of agricultural products and import control to protect the domestic market from competition. Table 2 presents indices of self-sufficiency in types of food in Ukraine.

Table 2. Index of self-sufficiency in the main types of food

Foods	2015	2016	2017	2018
Meat and meat products	106,2	105,4	105,1	105,0
Milk and milk products	105,0	103,6	107,7	107,5
Eggs	113,9	114,0	119,8	123,9
Sugar	95,5	142,3	158,4	139,2
Oil	872,6	1088,3	1265,5	1246,1
Potatoes	96,3	101,6	101,7	101,5
Vegetables, water-melons, melons and gourds	100,3	101,6	102,9	103,4
Fruits, berries and grapes	92,3	84,9	82,9	91,3
Bread products	238,9	290,5	292,2	319,2

Source: compiled by author according to the data [14]

In Ukraine, the population's consumption of meat and meat products, milk and dairy products, bread and bakery products, eggs, vegetables and melon crops, potatoes, oil, and sugar is fully ensured by domestic production. The production of oil and grain crops covers the consumption fund within the country several times, and forms a powerful base of Ukrainian agricultural exports.

We will analyze the dynamics and structure of foreign trade in basic food products (table 3).

Table 3. Analysis of foreign trade in food products

Foods	Import, thousand tons				Export, thousand tons			
	2015	2016	2017	2018	2015	2016	2017	2018
Meat and meat products	158	182	233	283	245	303	351	399
Milk and milk products	78	105	132	180	464	434	835	807
Eggs	11	5	7	4	126	112	155	186
Sugar	4	5	7	3	153	505	617	594
Oil	160	219	239	259	4253	5104	5988	5986
Potatoes	17	27	24	28	15	5	18	22
Vegetables, water-melons, melons and gourds	95	136	129	188	212	224	444	434
Fruits, berries and grapes	588	732	819	878	324	283	291	331
Bread products	190	240	255	280	38338	41451	42499	42940

Source: compiled by author according to the data [14]

Analyzing the foreign economic aspects of the state food security, one of the important factors of its guarantee and maintenance at the strategic level is Ukraine's participation in international trade. The development of the country's foreign trade requires the liberalization of foreign trade. However, solving the strategic task of ensuring food security in the conditions of globalization and reducing trade barriers has led to the fact that Ukraine has turned into a major importer of food. For certain types of food products, the level of food security has become threshold. Food imports are currently 25-35%, while the share of imports in large cities of the country is about 50-60% [16].

In confirmation of the above, we will conduct an analysis of the balance of foreign trade in food products (in accordance with the recommendations of the draft Law of Ukraine No. 8370-1 "On Food Security of Ukraine" dated 04.28.2011) using indicators: trade balance, which is defined as the difference in the value of exports and imports food, and the coefficient of coverage of import by export (index of the balance sheet), which is determined by the ratio of the volume of food export to the volume of import (table 4) [5].

Table 4. Analysis of the balance of foreign trade in food products

Foods	Trade balance, thousand tons				Coefficient of coverage of imports by exports			
	2015	2016	2017	2018	2015	2016	2017	2018
Meat and meat products	87	121	118	116	1,6	1,7	1,5	1,4
Milk and milk products	386	329	703	627	5,9	4,1	6,3	4,5
Eggs	115	107	148	182	11,5	22,4	22,1	46,5
Sugar	149	500	610	591	38,3	101,0	88,1	198,0
Oil	4093	4885	5749	5727	26,6	23,3	25,1	23,1
Potatoes	-2	-22	-6	-6	0,9	0,2	0,8	0,8
Vegetables, water-melons, melons and gourds	117	88	315	246	2,2	1,6	3,4	2,3
Fruits, berries and grapes	-264	-449	-528	-547	0,6	0,4	0,4	0,4
Bread products	38148	41211	42244	42660	201,8	172,7	166,7	153,4

Source: compiled by author according to the data [14]

Domestic imports do not allow to implement the modernization of the agricultural sector and fully ensure the economic availability of food for the population. The foreign economic policy actually led to the decline of some Ukrainian industries of the agrarian sector (livestock and poultry farming, crop production and production of agricultural machinery), undermined the competitiveness of domestic production. The state's excessive import dependence on some types of food significantly worsens food security.

The analysis of the independence of the food market is key in Ukraine's foreign trade in food, because based on the results of the calculations of its criteria, legal restrictions are introduced on the export and import of food or other restrictions on ensuring food security without violating the international legal obligations of the state, in particular WTO norms [17]. In this context, the governmental strategic priorities for increasing the level of food self-sufficiency should not discredit foreign producers, but should be aimed at protecting the national economy. At the same time, the main problems and risks of food security can be: a decrease in the competitiveness of national production and the efficiency of the national economy due to a forced decrease in competition with foreign suppliers, as well as an increase in the tax burden on the budget.

In order to guarantee food independence in the conditions of the development of foreign trade and the weakening of trade barriers in the food sector, the harmonious development of industries of the agricultural sector is necessary. An important strategic task should be the stimulation of innovations in agricultural production and the efficiency of agricultural land use. The gradual decrease of foreign food products in the domestic market will allow the domestic agricultural sector to move to an intensive type of development and a new technological level. Therefore, the food security strategy should include measures and mechanisms for the development of backward agricultural industries and increasing their competitiveness on the Ukrainian and world markets.

The main problems for the growth of food independence of Ukraine, which must be included in the food security strategy, should consider:

- lack of comprehensive targeted state support for commodity producers, therefore the production of individual food products within the country is not effective;
- insufficient awareness of producers about state support measures, as well as the complexity of the mechanisms of obtaining them;
- problems in crediting commodity producers and high risks of agricultural production;
- low level of state price regulation of the agricultural market.

The food security strategy should provide for a set of measures to stimulate the development of a number of agricultural industries and food industry to ensure their competitiveness. State financial support is necessary for the reasons of regulating the development of the agricultural sector and overcoming price and structural disparities in the agricultural sector, as well as strengthening the integration of Ukrainian agriculture into the international market.

The system of state financing to ensure food independence before the Ukraine's entry into the WTO provided for the compensation of interest rate payments on loans to agricultural producers, as well as direct support for the production of milk and dairy products. The elimination of customs protection and support for some types of agricultural products after the country's accession to the WTO led to the emergence of crisis phenomena, for example, in animal husbandry [16].

Solving existing problems requires the targeted use of loans not for the production of certain types of food, but for the support of commodity producers. It is appropriate to direct credit funds to finance the development of the infrastructure of the agro-food market, environmental measures, and scientific research, which will increase the efficiency and quality of agricultural production.

In order to support the agricultural sector, it is necessary to introduce a mechanism for subsidizing the purchase of agricultural machinery in accordance with WTO requirements and providing subsidies to machinery manufacturers within the country.

For the strategic development of rural areas, it is necessary to take into account the specificities of regions and develop regional food security programs. Social support of the population of the regions, legal protection of farmers, etc. are important.

Ensuring food security requires indirect instruments and mechanisms of financial support of the agricultural sector, in particular, state regulation of pricing by establishing minimum guaranteed prices at the level of the lower limit of fluctuations in average market prices, state commodity interventions on the food market. This mechanism will increase the protection of commodity producers from monopolists, as well as from weakly forecasted fluctuations in agro-food markets.

To improve the pricing mechanism, an effective system of foreign economic regulation in the agricultural sector is needed, aimed at protecting domestic producers from unfair and excessive competition from foreign suppliers and promoting the filling of the domestic market, supporting exporters and protecting consumers from low-quality products. The formation of the mechanism of economic relations between producers and sellers should take into account the real contribution of all participants in the process of ensuring food security. Formation of the price on the basis of market mechanisms and at the same time mechanisms of state management should contribute to the rational distribution of resources between branches of agricultural production. Consumer prices for agricultural products and food products should be socially oriented.

Guaranteeing the country's food security in conditions of increased imports requires the following measures. Ensuring Ukraine's national interests on the international agricultural market and food independence requires creating an optimal structure of

export-import operations. For this, as part of the food security strategy and its implementation and monitoring, it is necessary to continuously monitor the dynamics and structure of imports; monitor and analyze strategically important export-oriented goods and establish indicative indicators of limiting their import; develop a national strategy for food independence as a component of the state's food security strategy.

## Conclusions

Taking into account the efforts of Ukraine's integration into the European economy, it is important to take into account the advantages and risks for agriculture and to form the main strategic directions of state policy aimed at reducing risks, neutralizing possible negative consequences and accelerating the benefits from the liberalization of trade regimes:

- improvement of legislation in the field of regulation of the agrarian sector, tax, customs, financial and credit policy;
- export support for the purpose of expanding foreign sales markets for Ukrainian exporters;
- stimulation of domestic demand for food;
- increasing the competitiveness of agricultural producers due to the improvement of product safety and quality due to the implementation of international standards;
- increasing the competitiveness of agricultural producers on domestic and foreign markets by restructuring unprofitable enterprises, state regulation of agro-food markets, using effective mechanisms of state support;
- state stimulation of the development of service and sales cooperation of small producers and formation of market infrastructure for them;
- promoting the development of rural regions.

The priority strategic task of the state agrarian policy should be to increase food dependence. Agrarian economy should be oriented towards food self-sufficiency. Therefore, it is worth shifting the emphasis from the policy of liberalization of foreign food trade to the policy of agrarian protectionism based on a well-founded strategic mechanism of foreign trade protection and state support of the domestic agro-food market.

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