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The process of industrial development is linear. The transition to the next stage of industrial development is impossible without the implementation of the previous stage, since each stage forms a basis and accumulates resources for the next stage passage. The transition to the next stage of industrial development takes a long time, since the change in the parameters characterizing the stages of industrial development does not occur simultaneously. As a result, the state of development of the country's industry can have the characteristics of various stages. Based on this fact, it is possible to distinguish three different types of states within each stage of industrial development: *sustainable* (industrial indicators correspond to the characteristics of stages given in the table), *unstable* (industrial indicators correspond to two adjacent stages); *impossible* (industry indicators correspond to two non-contiguous stages).

The opposite of industrialization is the process of deindustrialization, which leads to the loss of production and technological potential, the destruction of the production base, and the outflow of labor resources to other sectors of the economy. With a long process of deindustrialization, the country may lose the stage of industrial development achieved and move to previous stages of industrial development.

УДК 338.439

Thus, industrial development is proposed to be considered as a sequence of stages (early industrialization, mature industrialization, late industrialization), within the framework of which a qualitative transformation of the industrial sector is carried out and its importance in the country's economy increases. Each stage of industrial development has specific features, the degree of compliance with which determines the type of state of industrial development (stable, unstable, impossible). To assess the process of industrial development, it is proposed to use the author's indicator of the degree of industrialization (quantitative assessment), competitive industrial performance index (qualitative assessment).

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**Yaremchuk N.V.,**

*Candidate of Economic Sciences,  
Senior lecturer of the Administrative Management and Alternative  
Energy Sources Department,  
Vinnytsia National Agrarian University  
Vinnytsia, Ukraine*

**Zubar I.V.**

*Candidate of Economic Sciences,  
Senior lecturer of the Administrative Management and Alternative  
Energy Sources Department,  
Vinnytsia National Agrarian University  
Vinnytsia, Ukraine*

### FOOD SECURITY OF THE STATE: THE MAIN PROBLEMATIC ASPECTS

#### **Abstract.**

*The article reveals the essence of the concept of "food security" and substantiates its fundamental role in ensuring the economic, and hence the national security of the state.*

*There was a difference in the approaches to assessing the food security of the Food and Agriculture Organization of the United Nations and Ukraine.*

*The assessment of the state of food security at the country level was carried out on the basis of the application of the "Methodology for determining the main indicators of food security" approved by the Resolution of the Cabinet of Ministers of 05.12.2007. The indicators of consumption adequacy for individual products were calculated and the conclusion was drawn on the imbalance of the population's nutrition. It was established that the availability of food is limited, first of all, by low solvency of citizens. The results of the research in the dynamics proved that the domestic food market is little dependent on imported food products, with the exception of such food groups as "fish and fish products", "fruits, berries and grapes".*

*It was proposed to supplement the list of food security indicators with such indicators as "the level of quality and food safety" and a list of indicators for its assessment.*

*The need to improve the quality characteristics of food for the population was noted and the main reasons for the decrease in the quality of food.*

**Keywords:** *food security, national security, food, agrarian sector, availability, adequacy of consumption, import dependence, food quality.*

**Formulation of the problem.**

The issue of food security is one of the puzzles of overall national security, but the key one, because it is the pledge of internal national stability and the basis for the reconstruction of the labor force. The need of each person for nutrients and energy belongs to the basic physiological needs, the provision of which is an unconditional obligation of a state functioning on the principles of the Constitution.

**Research results.**

In recent years, the issue of food security has come to the forefront of economic and agricultural development strategies in most countries of the world. There is a tendency to increase the requirements for food quality. The strategy for the development of the agrarian sector of the economy for the period up to 2020 [1] and the Concept of the State Target Program for the development of the agrarian sector of the economy for the period up to 2020. [2] the main strategic goal of agricultural policy was defined as guaranteeing food security of the state in the context of globalization and strengthening the presence of our state in the world market of agricultural products and food, and also noted the possibility of the agricultural sector not only in providing quality and affordable food for its own citizens, but also in the possibility of achieving positive developments in addressing the global food security [1; 2].

The presence of the global world hunger problem poses a challenge to Ukraine, as a state with powerful potential resource opportunities, and at the same time provides an opportunity to demonstrate itself in the role of a decent and competitive "player" in the world food market. And before becoming an honorary member and taking a leading position in the "camp" of exporters of agricultural products the state must ensure the constitutional right of its own citizens to exist, safe and sufficient food [3]. Thus, the logical question arises in the following, can we call the system of food security of Ukraine stably and effectively functioning?

The definition of food security was provided by the Rome Declaration on World Food Security adopted during the World Food Summit on November 13, 1996 in Rome. The concept of "food security" was proposed to understand the state of the state economy, in which the population of the country as a whole and every citizen is guaranteed access to food, drinking water and food products in the quality, assortment and volumes that are necessary and sufficient for physical and social development of the individual, ensuring the health of the population [4].

Providing a definition of the concept of food security as one of the components of the economic security of the country in the legislative and legal framework of Ukraine are outlined in the Law "On State Support of Agriculture". According to the law, food security is the protection of vital interests of a human being, which is expressed in the provision by the state of unimpeded economic access to food in order to to maintain his usual life activity [5].

The FAO (Food and Agriculture Organization of the United Nations) food security assessment methodology combines analysis on more than 20 indicators.

Each country sets its own priority food security assessment indicators. The assessment methodologies created on the basis of existing indicators are also diverse and their structure largely depends on the views of a particular state, international organization or researcher [6].

According to FAO general approaches, the food security of a country is considered secured if it:

- it produces almost 80% of the food consumed, or if a country specializes in the production of a type of food, the export of which allows it to obtain a positive balance of foreign trade in food, i.e. the volume of world trade depends to a significant extent on the sale of this commodity and the country is able to influence the world market.

- in addition to the production of the necessary amount of food, additional output is carried out in the volume of the insurance reserve to be filled at the level of developed countries of the world (more than 20%).

- if certain types of food are not produced or their production is limited, it is possible to buy them in other countries, while not allowing the emergence of food, political or other dependence on a particular exporting country in terms of missing food [7].

When we turn to the Global Food Security Index, which was proposed by the Economist Intelligence Unit, which looks at key factors of food security related to indicators such as economic and physical availability of food, as well as its quality and safety, the research shows the following situation: in 2013 Ukraine ranked 47th in the world, and already in 2019 - only 76th position among 113 countries: 6 years and minus 29 positions.

Such a significant deterioration of the situation in the agrarian country, in a country that collects record harvests of grain is difficult to explain by one reason. However, the unfavorable political situation, military actions in the east of the country, temporary expansion of the Crimean peninsula, disinterestedness of state officials to solve urgent and primary issues of existence of the country's population in accordance with certain standards, caused a deepening of the socio-economic crisis, which was reflected in a decrease of stability of such a fundamental indicator of national security of the country as food security.

According to the Decree of the Cabinet of Ministers of Ukraine № 1379 the main indicators of food security in Ukraine include:

- 1) the daily energy value of a person's diet, which is defined as the sum of the products of the unit weight of certain types of products consumed by a person during the day, and their energy value. The limiting (threshold) criterion is set at 2500 kcal per day, whereby 55% of the daily diet must be provided by the consumption of food of animal origin.

- 2) provision of the human diet with basic types of products, which is defined as the ratio between the actual consumption of an individual product and its rational norm.

- 3) sufficiency of grain reserves in state resources, which is defined as the ratio between the volume of food grain in the state food reserve and the volume of domestic consumption of bread and bakery products in terms of grain by the population. The limiting

(threshold) criterion for this indicator is considered to be its 17% level corresponding to 60 days of consumption.

4) economic affordability of products, defined as the share of total expenditures for food in the total aggregate expenditures of households. The limit (threshold) criterion for this indicator is its 60% level.

5) differentiation of food costs by social groups, tracked in the dynamics and calculated as the ratio between the cost of food for 20% of households with the largest incomes and the cost of food for 20% of households with the lowest incomes.

6) domestic market capacity of individual products, tracked over time and defined in physical terms as the product of consumption of a particular product and the average annual number of population.

7) food independence by individual products, defined as the ratio between the volume of imports of a particular product in kind and the capacity of its domestic market. The limiting (threshold) criterion for this indicator is its 30% level [9].

The national food security as a general goal of agricultural policy of Ukraine, let us consider the current state of its main components.

So food security can be defined as the obligation of the state to provide its own population full, balanced, high-quality and safe products, with the provision of criteria of its physical and economic accessibility.

The limiting (threshold) criterion of daily caloric intake in Ukraine is 2500 kcal per day, with 55% of the daily diet should be provided through the consumption of animal products (table 1).

In general, if the total caloric content of food consumption, although gradually decreasing during the study period, still exceeds the limit by 8.3% (in 2018), the situation with the consumption structure is quite different. In Ukraine, the norm of providing 55% of the daily diet through the consumption of products of animal origin is not fulfilled. During the entire study period, it did not exceed 29%, and there is a further decrease in this indicator.

Table 1

#### Dynamics of the average daily caloric intake of food by the population of Ukraine per person, kcal

Indicator	2013	2014	2015	2016	2017	2018
Calorie total	2969	2939	2799	2742	2707	2706
% up to the limit (limit is 2500)	118,6	117,6	111,9	109,7	108,3	108,3
Calorie content of food of animal origin	868	849	791	790	781	787
% to total calories	29,2	28,9	28,3	28,8	28,9	29,1
Caloric value for food of vegetable origin % to total calories	2101	2090	2008	1952	1926	1919
% to total calories	70,8	71,1	71,7	71,2	71,1	70,9

Source: Own calculations based on data from the State Statistics Service of Ukraine[10].

So about 71% of the total energy balance of the population comes from the consumption of foods of plant origin. As is known, an imbalance of saturated and unsaturated fat consumption leads to an increase in "bad" cholesterol, which, in turn, is one of the driving forces behind such diseases as coronary heart disease, heart attacks and strokes. Over the last decade, Ukraine has been a "leader" in the number of deaths caused by these diseases.

According to the level of average daily nutrition, the situation is considered optimal if the actual consumption of food by the person during the year corresponds to the rational norm, that is, the ratio between the actual and rational consumption is equal to one [6].

According to the data of Table 2 in 2018 in Ukraine for the majority of the main types of food the actual consumption was below the rational norms, and for such commodity groups as meat, milk, fish and fruits-berries was below the minimum consumption norms established by the Ministry of Health Ukraine by: 34% for meat, 48% for dairy products, 41% for fish. At the same time there is a gradual increase in the consumption of potatoes. In 2018, 12% more than the norm Ukrainians picked up the lack of calories in their own diet with potatoes. It should also be noted that the volume of consumption of vegetables and potatoes are correlated values and have a seasonal dependence on the seasonal production in the households of the population.

Table 2

#### Assessment of sufficiency level of food consumption

Types of products	Consumption rate, kg per year *		Actual consumption, kg per year				Adequacy level,%			
	rational	minimal	2013	2016	2017	2018	2013	2016	2017	2018
Bread and bakery products	101,0	94	108,4	101,0	100,8	99,5	1,07	1,00	0,99	0,98
Meat and meat products	80,0	52	56,1	51,4	51,7	52,8	0,70	0,64	0,65	0,66
Milk and Milk products	380,0	341	220,9	209,5	200,0	197,7	0,58	0,55	0,53	0,52
Fish and fish products	20,0	12	14,6	9,6	10,8	11,8	0,73	0,48	0,54	0,59
Eggs, pcs.	290	231	309	267	273	275	1,06	0,92	0,94	0,94
Vegetables and melons	161,0	105	163,3	163,7	159,7	163,9	1,01	1,02	0,99	1,01
Fruit, berries and grapes	90,0	68	56,3	49,7	52,8	57,8	0,63	0,55	0,59	0,64
Potatoes	124,0	96	135,4	139,8	143,4	139,4	1,09	1,13	1,16	1,12
Sugar	38	32	37,1	33,3	30,4	29,8	0,97	0,88	0,80	0,78
Oil	13	8	13,3	11,7	11,7	11,9	1,02	0,90	0,90	0,92

\* According to the norms of the Ministry of Health

Source: Own calculations based on data from the State Statistics Service of Ukraine [11]

Only potatoes, bread, vegetables, and eggs reached the rational consumption norms in 2018. In total, there are 15 g of meat, 61 g of milk, 10 g of hard cheese and 2 g of fish per day per person. All this can hardly be called a complete and balanced diet.

The level of self-sufficiency in Ukraine (table 3), that is, the ratio of production volumes and domestic use according to 2018r more than fully met domestic demand: for grain was 292.9%, meat and meat products - 95%, milk and dairy products - 121%, for vegetables and melons - 143%.

Table 3

**Indicators of sufficiency of basic food production to consumer needs of the population in 2018, thsd kg**

Product name	Actual production	Actual consumption	Adequacy index	% Characteristic values
Grain (in terms of flour)	12550	4285	292,9	optimum
Meat and meat products	2355	2232	0,95	optimum
Milk and milk products	10064	8355	120,5	optimum
Fish and fish products	160	460	34,8	critical
Eggs, pcs.	932	11624	80,2	optimum
Vegetables and melons	9940	6927	143,5	optimum
Fruits, berries and grapes	3039	2444	124,3	optimum
Sugar	1754	1260	139,2	optimum
Oil	6243	501	1246,1	optimum

Source: Own calculations based on data from the State Statistics Service of Ukraine

From the above analysis we can conclude that Ukraine is able to provide the population with products of own production for rational consumption. So the first

reason of imbalance in consumption of main food groups is insufficient level of household income.

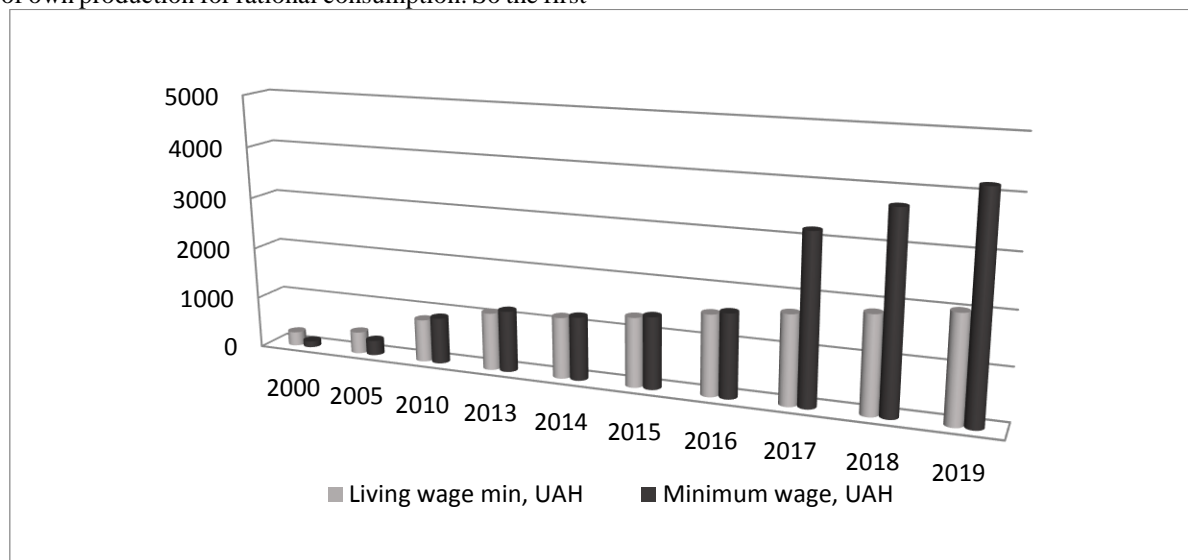


Fig. 1 Evolution of minimum subsistence level and minimum wage by year

Source: Own calculations based on the data of the Ministry of Finance of Ukraine [20]

The level of income of citizens is one of the main indicators of economic affordability of food. The threshold level of the affordability indicator is 60%. In 2015, it was 53.1%. By 2018, the value of the indicator

has improved to 47.9%. That is, the level of income at a small rate, but increasing, but still today its value is the lowest among European countries (fig. 1).

Stable ability to purchase food in the required quantity and quality is expressed through such an indicator of food security as affordability (table 4).

Table 4

**Economic accessibility of food**

Indicator and unit of measurement	2015	2016	2017	2018
Average monthly aggregate expenditures per household, UAH	4952,0	5720,4	7139,4	8308,6
Aggregate monthly expenditures on foodstuffs per household, UAH	2629,5	2848,8	3419,8	3963,2
Share of expenditures for food and non-alcoholic beverages in the structure of total household expenditures,%	53,1	49,8	47,9	47,7

Source: Own calculations based on data from the State Statistics Service of Ukraine



Inconsistency of the subsistence minimum with modern conditions generates disorientation in the income policy of citizens. The value of the subsistence minimum should ideally provide such a state of existence of society, which allows to maintain normal processes of reproduction of labor force, the possibility of obtaining education and medical care, as well as other social guarantees.

As the graph shows, the dynamics of changes in the living wage and the minimum wage underwent significant fluctuations in the downward direction during 2013-2016 (fig. 2). In 2019, the level of the

minimum wage was 143 euros, which is almost 2 times lower than the corresponding figure in Bulgaria, where it is 281 euros and the lowest among the European Commonwealth countries. In other words, by the end of 2019, Ukraine was able to exceed the poverty level defined by the UN at \$5 per day by the volume of the minimum wage.

The low level of income leads to the consumption of cheaper food, in the long run leads to health problems and, accordingly, is one of the factors that reduce life expectancy.

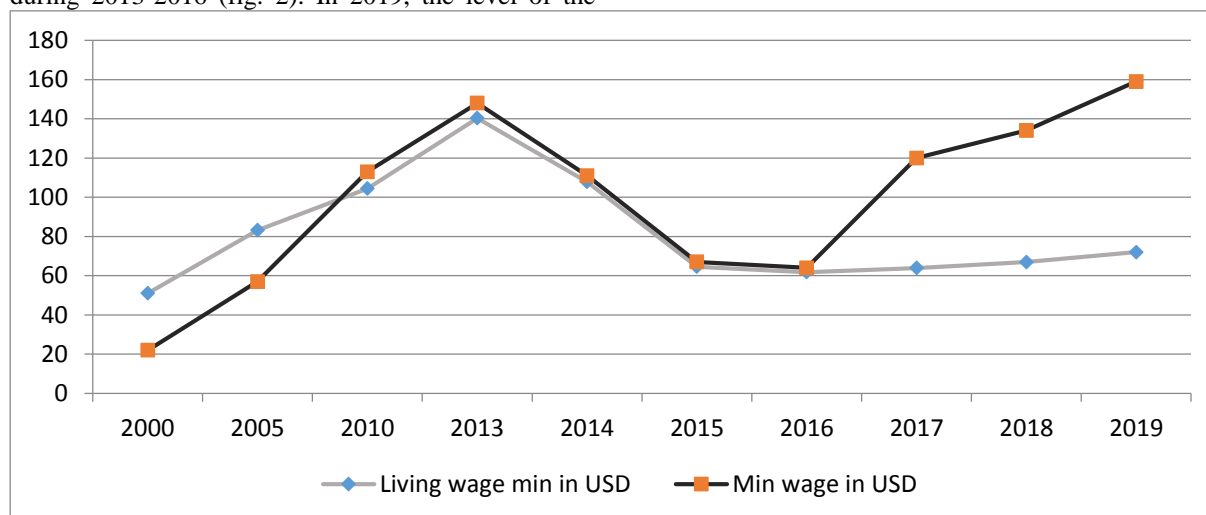


Fig.2 Evolution of minimum subsistence level and minimum wage in terms of USD per year.

Source: Own calculations based on the data of the Ministry of Finance of Ukraine [20]

Differentiating the cost of food by social group is done in order to determine the difference between the food costs of 20% of high-income households and 20%

of high-income households. The greater the value of this indicator is one, the greater the social stratification.

Table 5

**Differentiation of the volume of food consumption.  
(Average monthly per person, kg)**

Name of product	Consumption per quintile (20%) groups according to the size of total income		Ratio of top and bottom quintiles
	first quintile (below)	last quintile (highest)	
Bread and bakery products	7,9	8,6	1,08
Meat and meat products	3,5	6,0	1,71
Milk and dairy products	14,7	23,9	1,63
Fish and fish products	1,0	1,5	1,50
Eggs, pcs.	18	22	1,22
Vegetables and melons	7,1	10,8	1,52
Fruit, berries and grapes	2,4	4,9	2,04
Potatoes	6,0	6,3	1,05
Sugar	2,4	3,1	1,29
Oil	1,4	1,5	1,07

Source: Own calculations based on data from the State Statistics Service of Ukraine

The greatest differentiation in consumption within the highest and lowest quintiles is traced for products of animal origin: meat (1.71), milk and dairy products (1.63), fish (1.5) and fruit and berry group (2.04 times) (table 5).

Table 6

**Estimation of the capacity of the domestic food market, thousand tons**

Name of product	2013 p.	2015p.	2016 p.	2017 p.	2018 p.	Increase, %
						2018 p. до 2013 p.
Bread and bakery products	4933,2	4422,8	4308,7	4284,5	4198,5	-14,9
Meat and meat products	2550,0	2178,7	2195,0	2195,0	2478,6	-3,1
Milk and dairy products	10050,0	8995,0	8942,0	8496,1	9661,5	-4,2
Fish and fish products	662,5	367,2	410,2	460,0	708,2	+6,9
Eggs, pcs.	14075,8	12014,8	11409,1	11594,0	9610,9	-32,8
Vegetables and melons	7430,5	6889,8	6984,1	6783,0	4502,0	-39,5
Fruit, berries and grapes	2560,1	2178,9	2118,7	2241,5	1922,2	-25,1
Potatoes	6160,6	5891,5	5966,3	6090,5	3186,8	-48,3
Sugar	1686,0	1527,6	1420,4	1290,4	1365,8	-19,1
Oil	603,5	525,1	497,3	496,5	758,8	+24,3

Source: Own calculations based on data from the State Statistics Service of Ukraine

As noted above, the domestic market capacity is one of indicators of food security and is defined in physical terms as the product of consumption of a particular product and the average annual number of population.

Estimation of domestic consumer market capacity is an important step in drawing up balances of supply and demand for food and agricultural products markets (table 6). Tracking the dynamics of changes occurring in the food market makes it possible to take timely measures to balance supply and demand in the food market.

In 2018 compared to 2013 there is a decrease in the diet of Ukrainian products from all food groups. Most of all it concerns those groups for which there is a lag in consumption from rational norms.

In terms of purchasing power, satisfaction of the population in food is provided at the expense of domestic production.

However, the value of the import dependence indicator exceeds the maximum allowable 30 percent criterion for the three groups. The highest level of import dependence is characteristic of the group "fish and fish products", - 73.5%, which is explained by a partial lack of certain natural resources (access to marine economic zones). The next group is the group "oil" - the primary level of import dependence at 18% of the limit. This situation is due to imports of palm and coconut oils, which have found an active use of domestic producers in the food industry. And the exceeded value of the indicator for the group "fruits, berries and grapes" is explained by the import of significant volumes of exotic fruits, the cultivation of which is not natural for climatic zones of Ukraine (table 7).

Table 7

**Food independence by individual products**

Name of product	Import dependence indicator in %				Deviation 2018 to 2013, %.
	2015	2016	2017	2017 pik	
Bread and bakery products	2,4	3,2	3,3	3,7	0,36
Meat and meat products	13,0	7,3	8,3	10,6	-0,18
Milk and dairy products	5,5	0,9	1,2	1,6	-0,71
Fish and fish products	73,0	64,6	74,6	73,5	0,1
Eggs, pcs.	0,6	1,6	0,8	1,0	0,4
Vegetables and melons	3,2	1,4	1,9	1,9	-0,41
Fruit, berries and grapes	45,8	27	34,5	36,5	-0,21
Potatoes	0,4	0,3	0,5	0,3	-0,25
Sugar	0,7	0,3	0,4	0,5	-0,29
Oil	49,0	30,5	44,1	48,2	-0,02

Source: Own calculations based on data from the State Statistics Service of Ukraine

Representatives of state authorities confidently declare a satisfactory state of food security in the country. However, in our opinion, the governors, stressing such a "rosy" state of affairs, most likely do not fully interpret the depth of the concept of "food security", referring to it the volume of grain harvest and the volume of grain in the State Reserve. Indeed, at the end of 2015, there were 1,500,000 grains in the State Intervention Fund. Taking into account that the domestic consumption of bread and bakery products by the population in terms of grain was 6 mln tons, the indicator of sufficiency of grain reserves was 23%,

which really exceeds the criterion for this indicator of 17%. Grain reserves through sales without further stocking in 2016 dropped to a catastrophic 140 thousand tons.

The growth of debt of the states of the leading countries of the world is several times greater than their gross domestic product. Today most of the Central Banks of the leading countries view the system and mechanisms of formation of foreign exchange reserves not in favor of paper money. In the central banks of the U.S. and leading European countries gold accounts for more than 70 percent of reserves. However, the

dynamics of rising prices on gold and the complexity of its acquisition makes the formation of reserves in gold problematic for Ukraine as well.

Dynamics of FAO price indexes for main kinds of foodstuff in the world (especially grain index) proves vitality of idea of additional state and world reserves formation in grain, proposed by native scientists. In favor of 1 ton of grain as a new standard of value and means of accumulation the dynamics of rapid depreciation of world money (dollar, euro and others) witnesses. The essence of values belongs to filling with new content: living to make a measure of inanimate, and not vice versa. The functions inherent in the monetary approach should be subordinated to the service of the agrarian sector. Investments in agriculture can and must be increased without causing inflation. The institutional tendency of Ukrainians to farming is important for this idea. Therefore, an increase in grain surplus can be considered the most important of the absolute goods. The same criterion belongs to measure the results of reforms, considering its effectiveness as an increase in the volume of this surplus with a simultaneous increase in the production of livestock products and land fertility [12].

An important task of food security is to increase the quantitative and qualitative characteristics of nutrition of the population while reducing the share of expenditures on food in the family budget [13].

The national level of food security in the direction of growth of own agricultural production should be based on the principle of quality, environmental friendliness and conservation of agro-biodiversity and natural resources, their rational use [14].

The fundamental task in the development strategy of the agricultural sector for 2020-2030 is not the growth of production, but ensuring a sufficient level of profitability of production. After all, only an efficient producer can afford to produce a large amount of, above all, high-quality and safe products.

Safety of food and raw materials is considered to be the main factor determining the health of the population, because about 70% of all contaminants get into human body with food products, which as a result have negative consequences and form violations of the gene pool of the nation. Scientific and technological progress covers all elements of the production process and directly affects the main factors that form the quality of products. Such factors include: state of breeding, seed breeding and pedigree; quantity and quality of means of production; technology and organization of production; level of certification and standardization; system of economic incentives, procurement and transportation of products. All this affects the quality of crop production, and further through the quality of fodder on livestock products and soil quality [15].

International food trade has been going on for thousands of years. However, the chain from producer to consumer only increases every year, and consumers who know who produces the products they consume are becoming fewer and fewer. Food standards are vital to ensure safety, quality and a level playing field in trade.

The main causes of food quality deterioration are:

- low level of sanitation and production culture;
- the use of raw materials of unsatisfactory quality and low cost in production processes;
- inefficiencies in the functioning of agricultural markets;
- lack of quality and safety in the production process due to the lack of control and systematic monitoring of the production process by the competent supervisory bodies;
- non-compliance of the food safety system with European and international practices;
- systematic adulteration;
- misuse by the producers of food additives, some of which have a negative effect on the human body;
- wear and tear and obsolescence of the fixed assets of the food industry enterprises;
- unregulated use of adulterated agrochemicals and pesticides.

This indicates, firstly, the low level of control over the processes of production of food raw materials and food products by producers, and secondly, the lack of a system of state supervision over the safety and quality of food products.

Since the liquidation of the State Sanitary Epidemiological Service, the situation with the quality and safety of food has significantly worsened due to the "non-transfer" of its powers to Derzhprodspozhivsluzhba and the introduction of a special inspection regime [16].

Since January 1, 2016, almost 11,000 State Standards regulating the quality and technique of production of goods, particularly food products, have been abolished in Ukraine. Such a course of action the authorities explained by the need to transition to new international technical standards and the opening of additional opportunities for business through the removal of restrictions and standards for the production of goods and services. Producers were given 2 years to execute the transition. So there is a question of compliance with new quality standards during the transition period.

Every year, farmers take all the necessary measures that have helped produce bountiful harvests. The use of pesticides and agrochemicals has long been the norm in the agricultural reproduction process. Pesticides, while actively fighting all kinds of pests, when closely examined, are found to be either mutagenic or otherwise adverse to wildlife and humans. 90% of all fungicides, 60% of herbicides and 30% of intercides are carcinogenic, meaning they can cause cancer, and are extremely toxic to the environment. There are alternatives to the use of pesticides, which are just as effective, but more environmentally friendly [17].

It is known that pesticides have a wide range of effects on the human body and, in particular, affect a complex of different types of biological activity - cytogenetic, carcinogenic, teratogenic, embryotoxic, etc. Observations and studies of domestic scientists demonstrate a direct correlation between the rates of general upper respiratory tract cancer and soil loading with pesticides by regions [18].

Annual demand of the Ukrainian agricultural sector for pesticides amounts to more than 100 thousand tons, which in monetary terms corresponds to USD 2 billion. This sector is extremely attractive for counterfeit pesticides. According to the estimates of international organizations, the share of counterfeit pesticides in the Ukrainian market is about 25-30%, and more than 50% of the well-known brands are fixed in the retail trade. Today in Ukraine, two dozen pesticides are approved, which are recognized toxic and banned for use in European countries [19].

According to WHO, about 25 million pesticide poisonings are registered annually in the world. The dynamics of increasing agricultural land logically leads to an increase in the use of agrochemicals. So the question arises about the regulation and quality control of agrochemicals in Ukraine. The highly developed countries of the world quite strictly regulate the use of pesticides in their own territories by limiting agricultural producers by law and a rigid system of control. The situation in Ukraine is diametrically opposite - control is weak or absent.

Analyzing the current situation with the unsatisfactory quality of food, we consider it necessary to supplement it with such an integral indicator in our "nakoruch made and sold present" as the level of food safety and quality, whose value can be assessed by the following indicators:

- compliance of the manufactured products with international quality standards;
- the state of control over the observance of the quality of raw materials for manufacturing products and the manufactured products themselves;
- the level of morbidity of the population due to the use of low-quality food products;

On July 1, 2017 by the decision of the Cabinet of Ministers the state regulation of food prices was removed. Some of the scientists see this as a threat to reduce the availability of such categories of food for low-income segments of the population. However, from the economic point of view, this step is absolutely reasonable and expedient. State regulation of prices generates a process of distortion of competition and the emergence of a deficit in the market of those goods whose prices are subject to regulation. State regulation or so to say "restraint" of prices leads to a more intense increase in prices for products of "social" categories than for other products. The experience of European countries shows that a more effective mechanism of price regulation is the establishment of the maximum level of trade margins and reduction of VAT.

An auxiliary indicator, which is used by the FAO to assess the physical availability of food indicator density of roads. Sufficient concentration of infrastructure connections provides the possibility of fast and uninterrupted supply of food to all corners of the country. According to official data of the Ministry of Infrastructure of Ukraine, due to limited funding about 90% of public roads have not been repaired for more than 30 years. Therefore, public roads (169.6 thousand km) do not meet modern requirements both in durability (39.2%) and equality (51.1%) [21].

#### Conclusions.

The consequence of ensuring food security at the regional and state level will be the growth of the national economy in the following main directions: the volume of food production and sales will increase, and consequently, the budget revenues will increase; the growth of food production and market infrastructure development will increase the demand for labor resources, will have a positive impact on employment [22].

The results of the study show that, according to the existing legislative assessment methodology, the necessary level of food security of the country (for the period analyzed) has not yet been achieved. The main threats to food security in the country include the following:

- low level of income of the population, which is reflected in the level of purchasing power;
- failure to achieve rational norms of food consumption and low consumption of food of animal origin;
- decrease in the average daily caloric intake;
- imperfect quality control systems for products and raw materials.

The current situation indicates the irrational use of the agrarian potential of the country to produce the necessary amount of agricultural raw materials and food and the lack of socio-economic development of the country.

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