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**Aleksandras Stulginskis
University**
Kaunas, Lithuania

**Lithuanian Institute of
Agrarian Economics**
Vilnius, Lithuania

MANAGEMENT THEORY AND STUDIES FOR RURAL BUSINESS AND INFRASTRUCTURE DEVELOPMENT

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ŽUKOVSKIS Jan. Prof. Dr. Aleksandras Stulginskis University, Lithuania.

THE CONCEPT MODEL FOR ENSURING THE ECONOMIC SECURITY IN THE AGRARIAN SECTOR

***Serhii Kozlovskiy¹, Illya Khadzhynov², Anastasiia Mohylova³,
Viktor Tomchuk⁴, Andrii Kozlovskiy⁵**

¹ Prof. Dr. Vasyl' Stus Donetsk National University, Vinnytsia, Ukraine.

Tel. +380505045413. E-mail s.kozlovskyy@donnu.edu.ua

² Prof. Dr. Vasyl' Stus Donetsk National University, Vinnytsia, Ukraine.

Tel. +380505974016. E-mail i.khadzhynov@donnu.edu.ua

³ Assoc. Prof. Dr. Oles Honchar Dnipro National University, Dnipro, Ukraine.

Tel. +380505154815. E-mail mau2811@mail.ru

⁴ PhD. Vasyl' Stus Donetsk National University, Vinnytsia, Ukraine.

Tel. +380673695207. E-mail v.tomchuk@donnu.edu.ua

⁵ Assoc. Prof. PhD. Washington Miratech, Inc., United States.

Tel. +12024700845 (6323). E-mail andrii.kozlovskiy@miratechgroup.com

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In the modern globalized world, the issue of ensuring the economic security in countries and sectors as the primary task of protection the national interests from different kinds of threats is particularly relevant. The aim of the research is to develop tools for ensuring the economic security of agrarian sector. The object is the agrarian sector of Ukraine. The period under review is 2012–2017 years. The basis of the study is the data of the State Statistics Service of Ukraine. To evaluation the economic security indexes are used: gross domestic product; labor productivity in the agricultural sector. The ensuring the economic security of the agrarian sector requires the creation of such mechanisms and instruments, which will assure an active investment and innovations activities, growth of production of competitive products, cost-effective operation of enterprises. The research offers a mechanism to ensure the economic security of the agricultural sector, which consists of the following units: information and analytical unit; regulatory influence unit; unit of counteraction to threats and control unit. Also, the relationship between these units in the structure of factors influencing the development of the agricultural sector has been established.

Key words: economic security, agrarian sector, concept, tools, mechanism, model.

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** Corresponding Author*

1. Introduction

Globalization of world politico-economical processes and integration of Ukraine to the European Union predetermine the urgency of developing a methodology and practical provisions for solving the problem of ensuring the economic security of the agrarian sector, which can be presented as a strategy at all levels of government: state, regional, local.

One of the bases for ensuring the economic security of the agrarian sector is the creation of the necessary conditions (economic, social, industrial, etc.) to secure the sustainability of economic entities interacting in the production, processing and marketing of agrarian products.

Nowadays, economical security is an important characteristic of economical systems, which defines its ability to support the functioning of this system within prescribed limits on conditions of sustainable (Kozlovskiy, 2017) resource ensuring and protection by a state, economic entities and national interests of a country in general. The term of „economical security“ was legally justified in resolution in UN General Assembly in 1985, which was called „International economic security“ (UN General Assembly, 1985). The resolution emphasizes a relation of the economic security on the national level to economic protection of the country from external and internal factors. These factors can violate normal process of reproduction, worsen the achieved living level of population, hence, exacerbating social tensions.

Economic security of agrarian sector is a complex interconnected multilevel system in respect of which there are both internal and external threats. Therefore, in developing mechanisms for ensuring the economic security of the agrarian sector, it is necessary to determine: the purpose, the basic principles of the functioning of the agrarian sector, the legal basis governing the strategic changes and the concept of building the economic security system of the agrarian sector with new properties.

During the study of the development of the agrarian economy modern scholars along with the traditional ones, use specific methods and techniques of research such as economic-statistical one. For instance, the following methods are economic-statistical: comparison, grouping, dynamics series, correlation-regression analysis. With the aid of a monographic method a certain experience of leading agrarian enterprises is studied, an analysis of the production and economic activities of typical and advanced enterprises is conducted, and advanced methods of agricultural management are determined. Based on the experimental method, the problems of improving the organization of certain technological and production processes of agrarian production are studied. The expediency of using these methods and techniques during the research work was emphasized by the founder of the agrarian research methodology Popovich (1968). In his scientific work "Methodology of economic research in agriculture" I.V. Popovich notes that economic sciences in the study of agriculture as a branch of public production use the following methods of research: statistical-economic, monographic, experimental, calculational-constructive, abstract-logical and mathematical (Popovich,

1968). The use of methodological basis offered by Popovich un 1968 is the most reasonable conducting considered studies.

Researchers often use the index method to assess the state economic security. In statistics, the index is relative value, which characterizes the ratio of a certain indicator values in time, space, as well as comparison of actual data with the plan or other norm. There are a number of indexes that are successfully used to assess the of the economic security (Gross Domestic Product, Unemployment Rate and other). However, based on the criterion of structural content, for this research, The Gross Domestic Product, developed by World Economic Forum.

For the formation of the initial analytical matrix, available data State statistics service of Ukraine and databases, developed by renowned educational, scientific and financial institutions, were used.

The purpose of this work is to study theoretically the concepts, tools and economic mechanisms for ensuring the economic security of the agrarian sector of Ukraine.

2. Literature review

At this stage of global economy development in frames of the conditions of global economic and political instability, the concept of ‘security’ becomes greatly important. By present period this term has become relevant to all subjects ranging from a single citizen of any country (personal security, food security, home security, protection from loss of work, environmental security, social security, etc.) to national security of the country, where any person resides and global security.

Although on the first sight the term ‘security’ seems to be quite understandable and easily identified, it has a broad range of meanings. Considerable number of national and abroad researches define this term to be sufficiently broad and often controversial. So, in the dictionary by Ozhogov (1992) the term ‘security’ is as the state in which there is no threat but the protection from the threat. Dal (1981) implies that the term „security“ means „absence of threat, safeguard and credibility“.

American political scientist Wolfers (1962) wrote that objectively security predicts the absence of threats to acquired values and from subjective side it has a lack of fears that these values will be damaged. From this definition it follows that security is a necessary condition for the accumulation of values, that is one of the conditions for the successful functioning of any system and, consequently, a condition for the formation and functioning of the state institution.

Considering the concept of security in relation to agro-industrial complex its special importance should be considered, because the main purpose of agro-industrial complex is to secure the population of the country with accessible foodstuffs in the required level and quality as well as creation of workplaces for the population of the countryside. Therefore, as Ushachev (2006) emphasizes that agro-industrial conditions define not only food security but also social stability in society.

At the same time, despite the large number of scientific developments, a number of issues of comprehensive evaluation of the state of the agrarian sector and its influence on ensuring the economic security of the country requires clarification and further investigation.

In this way, Vlasuk (2008) thinks that the economic security of agrarian sector has a complex structure which should be considered in viewpoint of structural and functional aspects as a set of interrelated security systems that reflect the functioning of individual 'units' or spheres of the state's economic system. The researcher suggests allocating such functional components of the economic security of the agrarian sector as: financial, engineering and manufacturing, investment, innovative, ecological, marketing, intellectually-personnel, social and external economical.

Bisultanov (2008) considers that economical security of agrarian sector is the state of economic, financial, social, legal and ecological conditions for functioning and achievement of competitiveness with the provision of the necessary level of protection of the vital interests of enterprises of the complex from internal and external threats.

Kulagina (2012) states that economic security of the agrarian sector as the system of economic interests lies in finding mechanisms for a compromise between ensuring the national interests of the country, food security and risks, which result in the stable functioning of the agro-industrial complex.

Kurgan (2012) considers this category from the position of enterprise development: „Economical security of agrarian sector as system of economic interests lies in searching of mechanism for compromise between ensuring national interests of a country and food security and risks resulting securing of stable agro-industrial complex functioning“.

Luchik (2013) believes that the economic security of the agrarian sector is eventually the food completeness and balanced nutrition of the Ukrainian population, the availability of resources for production and the ability to have a dynamic rural economic development.

Heyets (2006), an academician of the National Academy of Sciences of Ukraine, believes that „the state of the economy, society and institutions of state authorities is economically safe when there is guaranteed protection of national economic interests and progressive socio-economic development of the country“.

Svetlakov (2010) considers this category more comprehensive, namely he believes that the economic security of the agro-industrial complex is a complex of economic, social, legal and environmental conditions and factors for the functioning, development and achievement of competitiveness of the industry with the aim of self-sufficiency of high-quality food products of the population of the territory, stimulation of own goods productions.

Księżopolski (2011) believes that the economic security of the state is the continuous functioning of the economy, which means maintaining the main indicators of development, as well as ensuring a comparative equilibrium with the economies of other countries.

Raczkowski (2012) has a different view: „Economic security is a balanced state of the endo- and exogenous functioning of the national economy, in which the risk of disbalance occurs. The reduction of this risk requires the implementation of certain and approved organizational and legal norms and standards, the principles of social coexistence“.

The condition of economic security of the state can be studied from the standpoint of stability. Thus, Kozlovskiy, Khadzhynov, Vlasenko and Marynychak (2017) consider that the economic stability of the system is the ability of the economic system after a certain perturbation (changes in the parameters of the economic system, its indicators) to quickly return to the state not worse than the previous one, to maintain its condition as long as desired, as well as to improve its state to the size of the perturbation in case of positive changes in the economic parameters of the system. Trach (2011) believes that „economic security means economic relations aimed at achieving the certain level of economic development with satisfaction of needs and guaranteed protection of the interests of all economic actors, even under unfavorable external and internal conditions“.

The analysis of these statements shows that the economic security of the agrarian sector has a complex structure that needs to be explored and improved.

3. Methodology

To solve the scientific and practical problems of the development of the agrarian sector and to ensure its security, it is necessary to apply a complex method of evaluation, which means evaluating both the value and qualitative characteristics. The methods for assessing the development and provision of economic security of the agrarian sector can be divided into three groups:

- methods based on the technocratic approach;
- methods based on the economic approach;
- complex methods.

The most important indicator reflecting the level of economic security is the gross domestic product of the agrarian sector. Gross Domestic Product is an indicator of the value created as a result of the production activity of institutional units on the economic territory of a particular country. At the same time, it is not supposed to measure production that takes place outside the economic territory of the country.

In economic science different methods are used to determine the value of GDP. It can be calculated by three methods:

- production method (value added method);
- by incomes;
- by costs.

According to the added value method, the added value of all sectors of the national economy should be summed up. The method of added value allows determining

the relation and role of individual industries in creating GNP (structure), identifying the dynamics of structural change, conducting a comparative analysis of GDP (GNP) of a country with a similar indicator of other countries.

GDP can also be calculated by measuring either aggregate income of all economic agents, or the total amount of expenses for the production of goods and services, because in the economy all the cost of purchasing products is an income for producers of these products. The method “by incomes” is based on the equality of GDP and gross domestic income. The cumulative income is defined as the sum of incomes, which is a fee for the use of factors of production one way and another. Through these factors the finished product is produced.

Calculating GDP by income, one needs to find the sum of its components:

- salaries of wage employees (this component includes wages, as well as contributions from enterprises to social insurance, to the pension fund, employment fund, etc.);
- rent payments (income received by the owners of the property from the involvement in the production of land, property, capital);
- net interest (income of suppliers of cash capital received by households for deposits, interest on corporate bonds);
- incomes of the non-corporative sector (net profit of enterprises that are in the sole property);
- profit of joint-stock companies (this component, in turn, contains three components: profit tax, dividends to shareholders, retained earnings of enterprises).

The following two elements are not incomes in the common understanding, but they are part of the cost of production and therefore are part of GDP:

- amortization costs (the amount of capital consumed for the production process during the year);
- net indirect taxes (indirect taxes: value added tax, excise taxes, duties, license fees, etc., without transfer payments). From an economic point of view, this is the difference between the prices at which consumers buy goods and the selling prices of firms.

The summing up of these components allows determining the GDP by the “by incomes” method.

$$\text{GDP by incomes} = W + Pr + i + R + Am + IT,$$

where W – wages; Pr – profit; i – percentage; R – rent; Am – amortization; IT – indirect net taxes.

It is easier to calculate GDP using the cost method. This approach is based on the starting point, according to which the cost of the manufactured product is equal to the sum of all costs for its creation, and the costs themselves within the framework of this method can be divided into the costs of macroeconomic actors: households, state and foreign firms.

In order to achieve the goal of the study, to ensure the economic security of the agrarian sector of Ukraine, it is expedient to choose a production method for calculating the GDP of the agrarian sector, which will determine both the level of development of the agrarian sector and the problem development issues on the basis of the analysis of the structure of agrarian production.

4. Results of research

The concept of economic security of the agrarian sector is a system of views, conditions, requirements for the development of a set of measures aimed at increasing the economic security of the agrarian sector through the integration of following components: economic-financial, industrial and technological, natural-ecological, social-intellectual, institutional, politico-integrational (Jurakovskiy, 2015).

The purpose of the concept of economic security of the agrarian sector is to create an effective mechanism for managing the potential and actual threats, risks in the financial and economic activities of the agro-industrial entities, which should be able to timely respond to the dynamic changes of the external environment and to develop tools for increasing the competitiveness of the national agrarian products (Kozlovskiy, 2017).

The concept of economic security of the agrarian sector has the status of a normative official document, which in a systematic way presents the goals, tasks, principles and methods to improve the level of economic security. It is worthwhile to submit the concept in the form of the following sections:

1. General provisions. Based on a comprehensive assessment of the current situation, the mission, goals, objectives and principles of ensuring the economic security of the agrarian sector are discovered. The internal and external threats for the development of the agrarian sector from the point of view of its influence on the national interests of the country are exposed.

2. Direction of action. The main directions and mechanism of ensuring the economic security of the agrarian sector are discovered. It depends on the variety of economic securities of the agro-industrial complex based on the considered classifications. The algorithm of the strategy of providing economic security of the agrarian sector is presented, considering the level of development achieved, the unfavorable conditions to produce agrarian products, and opportunities for increasing investment attractiveness of the regions.

3. Implementation and achievement of the goal. Formation of the passport of economic security of the agrarian sector at all levels of management (economic entity, administrative region, region, country as a whole), which is the source of information for the organization of monitoring and management of the level of economic security of the agrarian sector using economic and mathematical models. It also includes determination of the total amount of financial resources to increase the level of economic security of the agrarian sector.

In recent years, a number of extremely important regulatory and legal acts in the field of economic security of the agrarian sector of Ukraine were adopted, namely the Law of Ukraine „On State Support to Agriculture in Ukraine“ (2015); „Complex Program for Supporting the Development of the Ukrainian Countryside for the Period till 2015“ (2007); The Law of Ukraine „On Amendments to Certain Legislative Acts of Ukraine Concerning the Reduction of the Number of Permitting Nature“ of 09.04.2014 and others. However, the lack of effective legislation to ensure the economic security of the agrarian sector is caused by the uncertainty of priorities. For example, on the one hand, there is a necessary potential (personnel, scientific, industrial, investment, innovative), and on the other hand, the relationship between elements of the economy is not considered. At the same time, each of the regions of Ukraine has its own peculiarities of development (natural and climatic conditions, traditions, customs, geographical position, etc.), which affects their specialization and the role of agro-industrial complex in GDP of the region. Therefore, the development of the concept of economic security of the agrarian sector must be scientifically based at the level of the country, region, city and separate economic entity and have the form of a map strategic development to reduce the risk of management.

Risk and security analysis are carried out to identify a list of potential threats that may arise because of the activities of agrarian enterprises and to determine possible harm to their interests.

Based on the results of the risk analysis, there is a security policy – a document that contains the principles of the agrarian sector and its enterprises in relation to security problems. This document contains a ranked list of threats, defines the desired level of security, describes organizational decisions. Implementation of a set of measures to ensure economic security is based on the developed set of indicative plans (Kozlovskiy, 2010).

Solving the problem of ensuring economic security cannot be carried out by the actions of single or few departments in several areas of activity. Its ensuring should provide a system of measures of an economic nature, united by a single strategic plan, the unity of the goals and objectives of the agro-industrial complex.

Considering the point that Ukraine allocates a massive natural potential for the improvement of agrarian production, energy resources, competent labor force, excellent scientific potential, etc., it is obvious why Ukraine takes the 162th position in terms of sound management policy (in 2016) out of 178 countries under the study of economic freedom (Index ..., 2016) in the agrarian production area. Moreover, not only will Ukraine be able to assure the required level the economic security of the agrarian sector of country and its parts in the long-term period, but it also can provide broad opportunities for the improvement of new food markets and enhance the image of Ukraine as a major agrarian state (Human ..., 2014).

It is clear that the menace to the economic security of the agrarian sector is proved by the current trend of a decrease in the volume of gross agricultural production in comparison to the base period by about 30–40%. In 2013, the shift in the gross agricultural yield in all groups of state-gifts compared to 2012, which was set as the base

year, accounted for 29.5%, in 2014, in comparison with the base one, which was 2012, it stood for 34.8%, in 2015 compared with the base 2012 22.9%; in 2016, in comparison to 2012, it amounted to 38% (see Fig. 1), which shows that the agrarian sector of Ukraine is in a condition of progress and there is no reasonable cause to consider the decline of the basic economic index of its functioning.

Meanwhile, the examination of the rate of increase of the agrarian sector is significantly important, since its small growth rates can reflect the existence of the impact of several unfavorable elements, which also may threaten the economic security of the whole agrarian sector.

Figure 2 depicts the dynamics of productivity growth in the agrarian area of the country. It is true to say that labour productivity is growing gradually in livestock production (70.3%) and in plant growing (74.1%). It means a steady conversion of the agrarian sector of the country to the way of intense improvement. This is one of the factors that facilitate a growth of the level of improvement of the agrarian economic system generally.

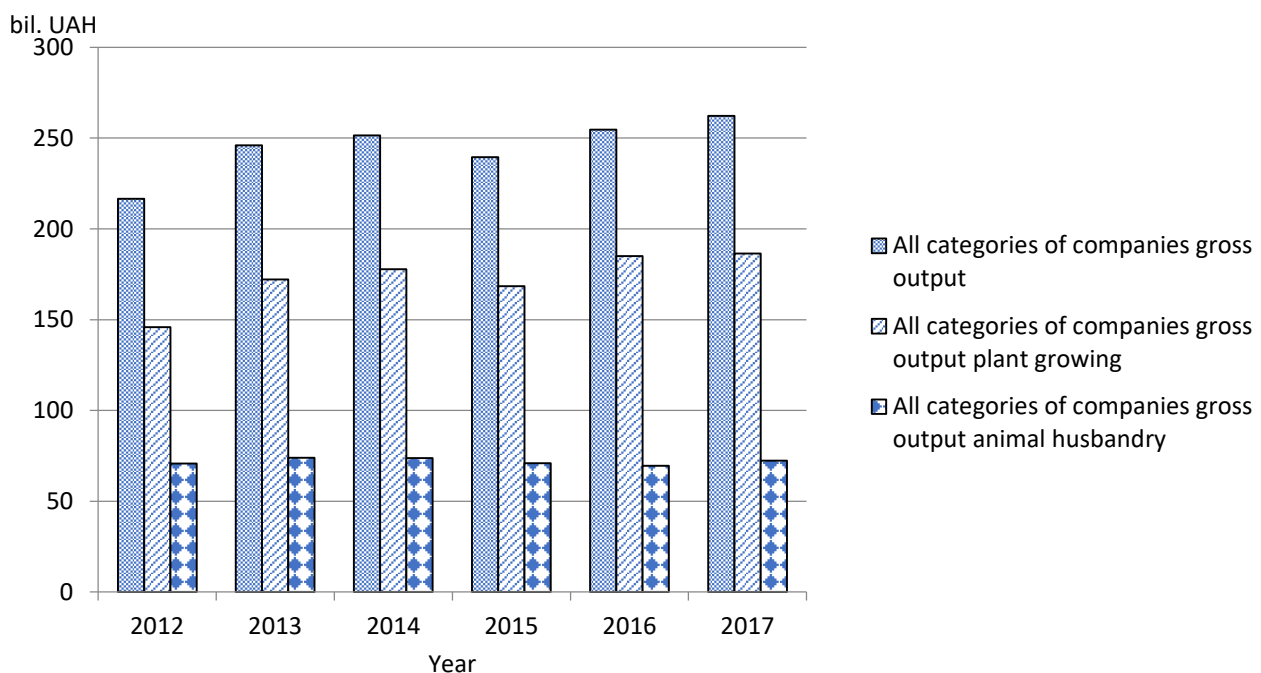


Fig. 1. Volume of gross agricultural output (in comparable prices in 2012, UAH billions) in Ukraine

Source: State statistics service of Ukraine, 2018

Developing measures aimed at improving agri-food policy in order to raise the level of economic security of agrarian sector, it is necessary to take into account the specifics of industrial-economic relations in the world, national, regional, and local markets, which are regulated by agrarian policy, as well as mechanisms inherent in a market economy, demand and supply, competition. The essence of the agri-food market is considered through the prism of marketing tools (Kotler, 2011), which are

the efficiency of the processes of promotion of agrarian products, sales promotion, pricing, etc.

It also helps to determine the results of financial and economic activity of commodity production and the possibility of satisfying the population in domestic food (fig. 3).

The transformation of the domestic agro-food market into a qualitatively new form under the influence of modern market tools and restrictions in connection with the opening of markets in the level of European Union does not lead to the effective functioning of agro-industrial complex through a significant amount of destabilizing factors (agrarian policy of EU countries, price disparity in the system agro-industrial complex, imperfection of state regulation of reproductive processes, etc.) (Kozlovskiy, 2010). In the system of providing regional economic security of the agrarian sector, the state should take the leading position. It should be accomplished through the development of state target programs, methods of administrative management implement agrarian policy.

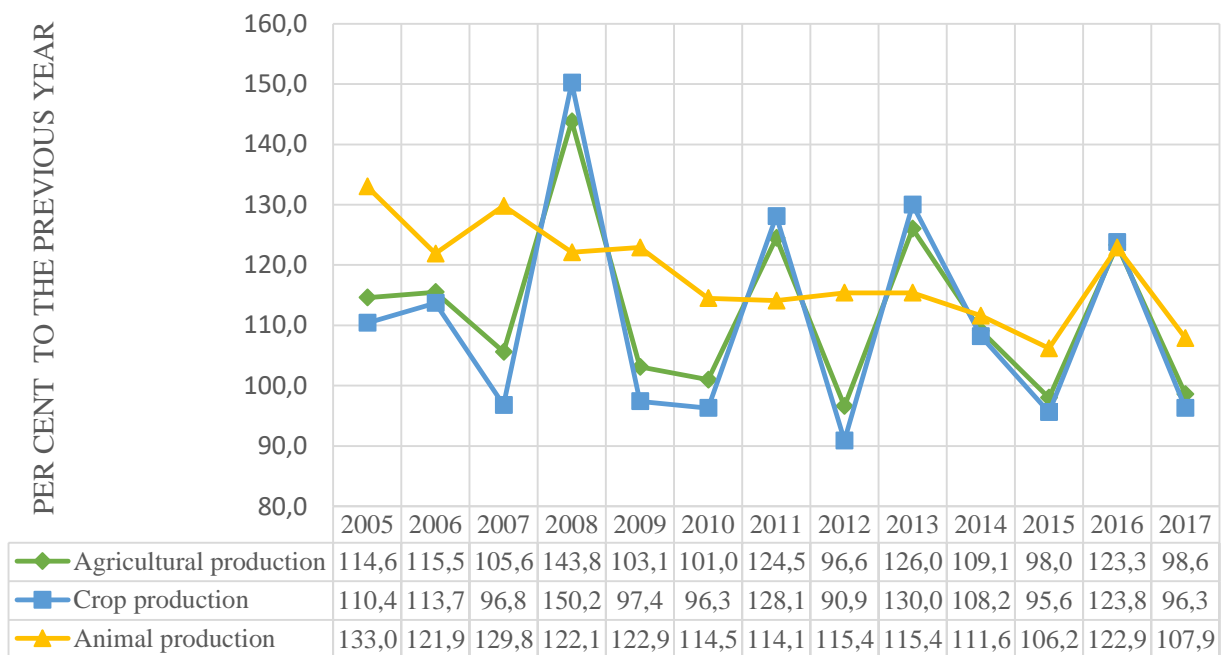


Fig. 2. Labour productivity in the agrarian sector of Ukraine

Source: State statistics service of Ukraine, 2018

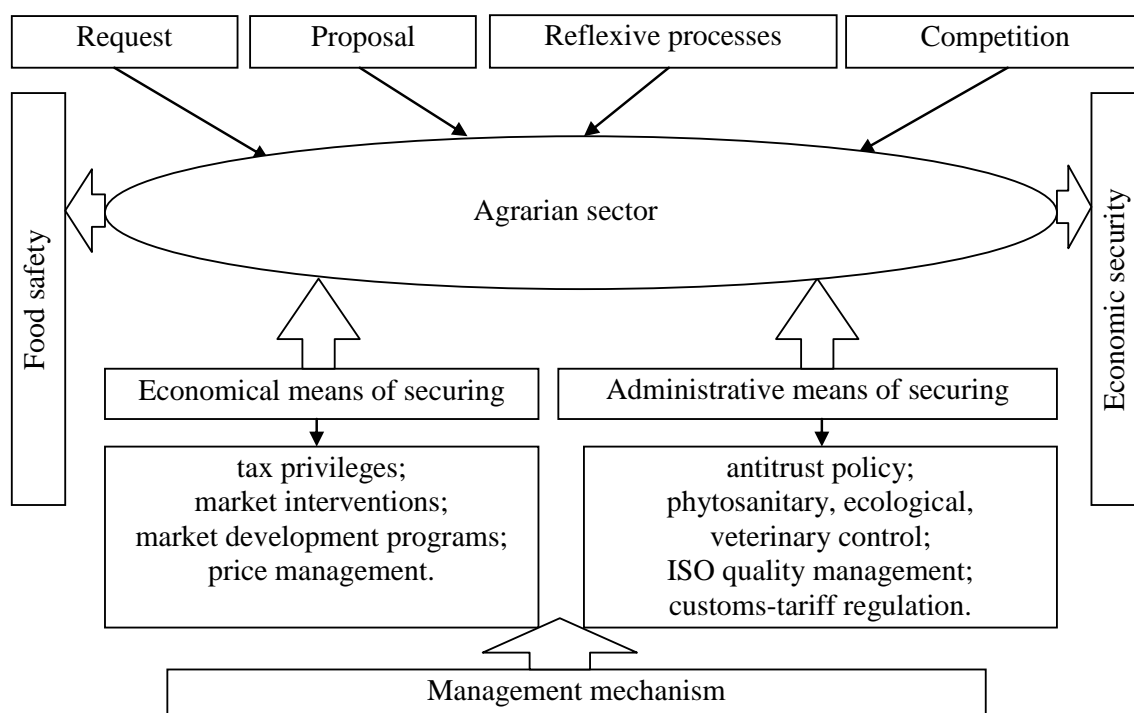


Fig. 3. The structure of agrobusiness and economic security of agrarian sector

Source: Jurakovskiy, 2016

Economic security of the agrarian sector is the condition of securing the agrarian economical sector from all types of menaces, which ensures the creation and realization of its economic program in the area of control and promotion of the agrarian sector progress in the set restrictions of the country and assuring economic stability and the capability of agrarian companies to reproduce and grow. The algorithm for formation of a complete system of economic security of the agrarian sector includes the establishment of a so-called "tree of tasks", which is represented in Fig. 4.

The strategic aim of creation a complete system of agrarian sector economic security is to form the needed conditions for the improvement of companies of the agrarian sector of the economy and securing economic stability and socio-economic stability of the territory improvement. In order to accomplish this mission, it is crucial to form a proper structure for providing the economic security of the agrarian area development at every of following levels: state, regional, local, enterprise.

Ensuring the economic security of the agrarian sector requires the creation of such mechanisms and instruments that, through the system of taxes, loans, prices, tariffs, customs methods, state support methods, will ensure active investment and innovative activity, increase of production of competitive products, cost-effective operation of enterprises, social protection of the population, protection of the environment.

It should be noted that there are following mechanisms for securing the economic security of the agrarian sector: production, tax, financial, credit, customs, investment, social, infrastructure, institutional and integration. Moreover, there are several types of tools which should be used in a comprehensive way for the most

effective regional policy. In addition, for the implementation of a specific mechanism for ensuring the economic security of the agrarian sector, it is necessary to form a certain set of tools.

Nowadays there is no unity of views of researchers on the development of mechanisms and appropriate tools for ensuring the economic security of the regions, especially of the agro-industrial type. Most of these problems today are simply not developed and poorly understood, which explains the differences in the merits and directions of the proposed measures.

Considering the above mentioned, it is a concept model that is offered for ensuring the economic security of the agrarian sector, which consists of three following units of measures: information-analytical unit, unit of regulatory influence, unit of direct counteraction (fig. 5).

The proposed complex of measures has a recommendation theoretical and methodological content, which is very difficult to apply. Therefore, for the practical implementation of this complex of measures to ensure the economic security of the agrarian sector, there is a proposed concept which involves the division of responsibility (decentralization) between the legislative and executive powers of different levels in terms of the implementation of appropriate measures in given spheres. Undoubtedly, the division of responsibility between performers is a very important component of any process, but the clear understanding of specific regulatory and other tools is highly important.

Decentralization of power may also affect the development of the agrarian sector of Ukraine from various aspects. Foreign experience states that even in countries that have succeeded politically, economically and socially (France, the Great Britain, Italy, Poland) decentralization of authority took place quite tense, and various problems arose constantly, especially in terms of providing the population with prior life goods. Therefore, in the context of the deep political, economic and social crisis that currently prevails in Ukraine, this circumstance needs to be timely considered to prevent possible negative consequences of future decentralization of authority.

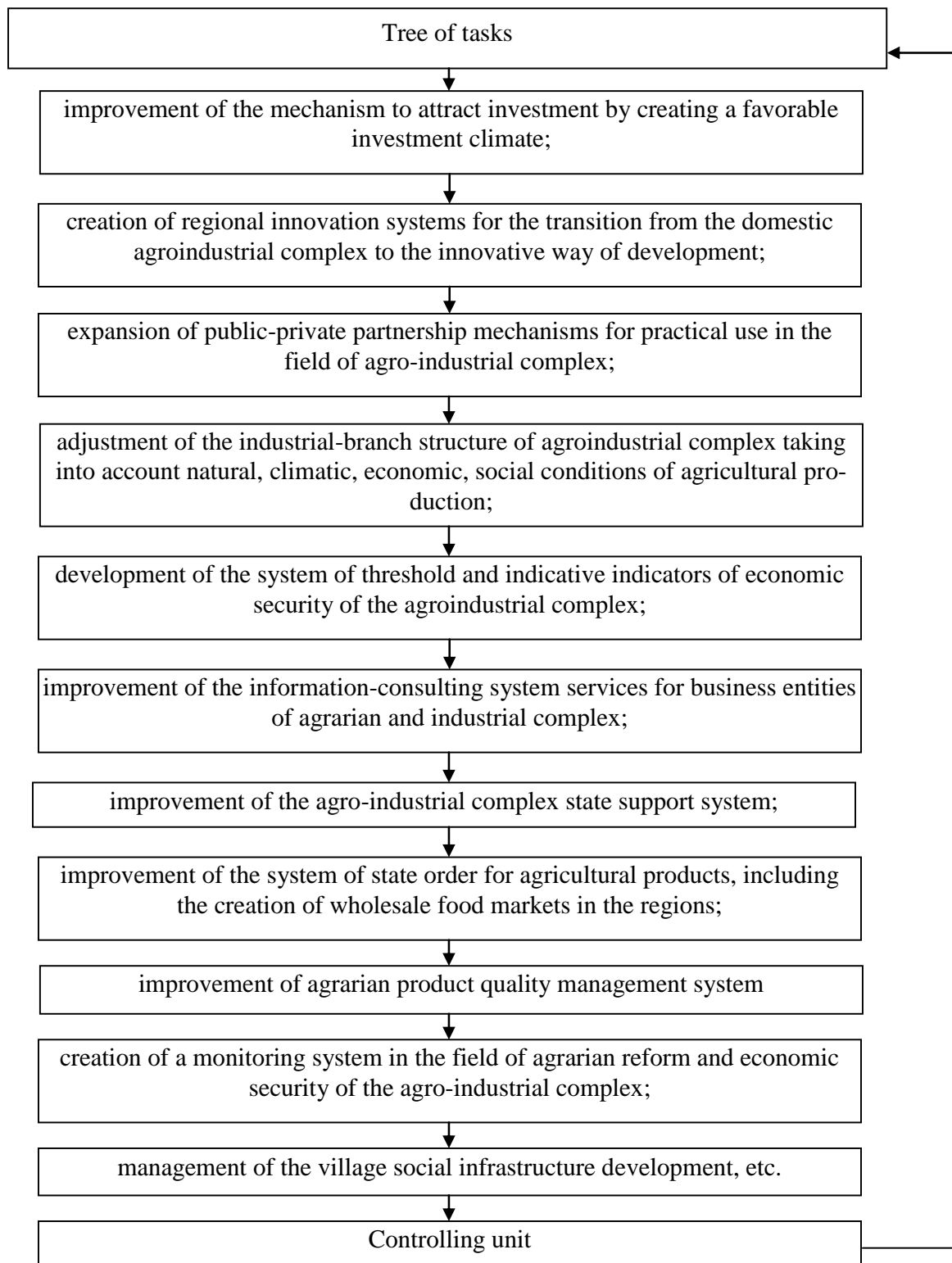


Fig. 4. „Tree of tasks“ for building an economic mechanism of a comprehensive agrarian sector economic security system
Source: (Filipishyn, 2017)

The task of scientists is to develop such mechanisms of decentralization, which will prove to be the key to effective territorial and agrarian development both in a entire state and its regions.

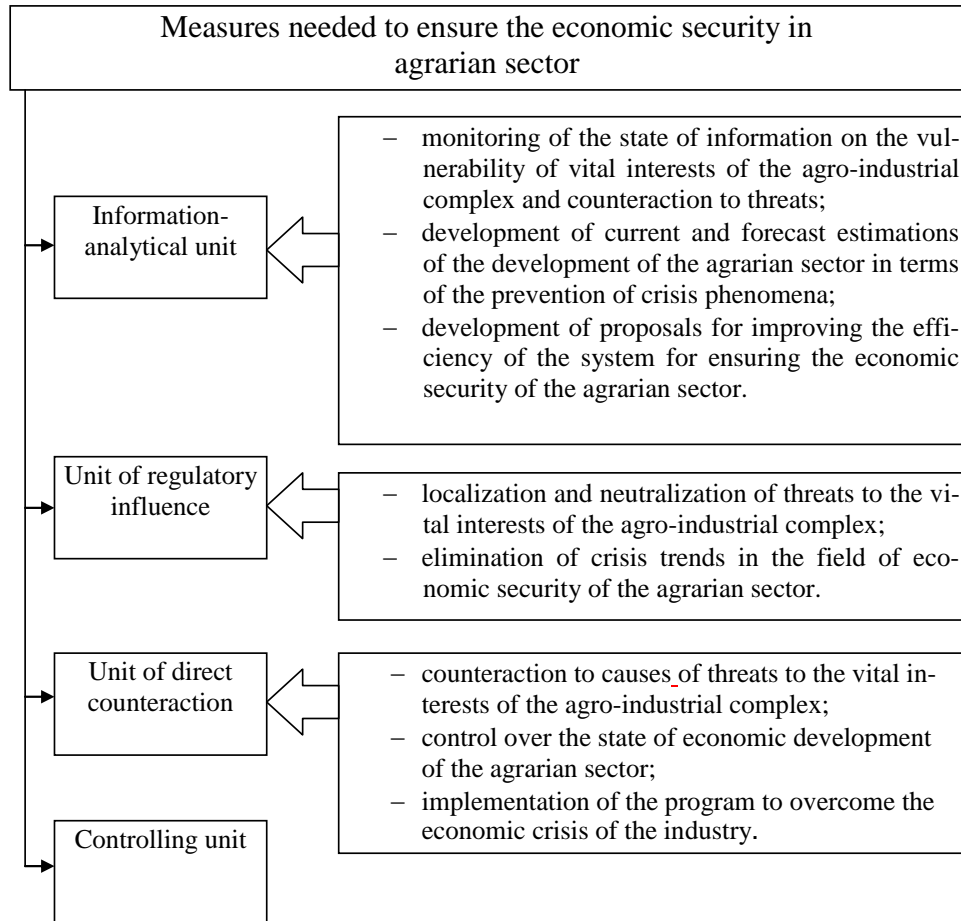


Fig. 5. The concept model for ensuring the economic security in agrarian sector
Source: (Jurakovskiy, 2015).

The instrument for eliminating the specific threats to the regional economic security of the agrarian sector is formed with the account for the assessment of its level and status, as well as by means of a decomposition analysis of the values of its indicators in order to identify the qualitative characteristics of the investigated process and identify the priority areas of the economic agrarian policy of the region. The implementation of this tools is aimed at improving the social policy of the agricultural sector and the manufacturing industry; modernization of these industries, with the aim of updating fixed assets and improving production efficiency; improvement of the economic policy of the region, in order to create conditions for improving the profitability of agribusiness, sectoral investment attractiveness, increase of production volumes and expansion of infrastructure; the formation of a regional infrastructure of the agricultural and manufacturing sectors in the trade (market), investment, scientific and innovation, institutional sectors.

5. Conclusions

1. It is proved that the economic security of the agrarian sector is a set of economic relations between economic agents and their interests, which ensures the integrity and stability of the agrarian sector to potential threats and can reduce (or eliminate) destabilizing factors or transform them into competitive advantages to achieve food security of the state.

2. The research has shown that the essence of the economic security of the agrarian sector as a system of economic interests lies in finding mechanisms for a compromise between the provision of national interests of the country, food security and risks, which results in the stable functioning of the agro-industrial complex.

3. The process of ensuring the economic security of the agrarian sector should be understood as an ongoing cyclical process of measures aimed at increasing financial stability, liquidity, competitiveness of agrarian enterprises, and the creation of favorable opportunities to ensure the economic benefits of agrarian production and measures which must positively influence the living level and conditions of population directly involved in agrarian productions, the inhabitants of the surrounding territories and the environment conditions.

4. It was established that, regardless of the values of certain indicators of the level of economic security, the priority directions of the economic policy of development of the agrarian sector are identical. However, a specific set of organizational and economic tools for ensuring the economic security of the agrarian sector in different priority areas will vary depending on the importance of individual indicators characterizing the level of economic security of the agrarian sector. Thus, it is necessary to apply a decomposition method, while choosing such indicators.

5. It should be noted that the proposed in the study methodology for assessing the level of economic security of the agrarian sector involves the distribution of indicators for assessing the level of economic security by the criterion of significance, which means by their possible impact on the value of economic security of the agrarian sector.

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KONCEPTUALUS AGRARINIO SEKTORIAUS MODELIS UKRAINOS EKONOMINIO SAUGUMO PALAIKYMUI

***Serhii Kozlovskiy¹, Ilyia Khadzhynov², Anastasiia Mohylova³,
Viktor Tomchuk⁴, Andrii Kozlovskiy⁵**

^{1, 2, 4} *Donecko nacionalinis universitetas*, ³ *Dnipro nacionalinis universitetas*, ⁵ *Vašingtono Miratecho tarptautinė mokslinių tyrimų korporacija, Jungtinės Amerikos Valstijos*

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Siekiant užtikrinti nacionalinių interesų apsaugą šiuolaikiniame globaliame pasaulyje, aktualu stiprinti ekonominį visos šalies ir atskirų sektorių saugumą. Šio tyrimo tikslas – suponuoti ekonominio saugumo stiprinimo įrankius Ukrainos agrariniame sektoriuje. Tyrimas remiasi Nacionalinei Ukrainos statistikos valdybai 2012–2017 m. pateiktais duomenimis ir analizuojami bendrojo vidaus produkto ir darbo našumo agrariniame sektoriuje ekonominio saugumo indeksai. Pateikiamas agrarinio sektoriaus ekonominį saugumą palaikantis mechanizmas, susidedantis iš šių segmentų: informacinio analitinio, įtakos reguliavimo, grėsmių poveikio stabilizavimo ir kontrolės segmentų. Numatyta ir šių segmentų svarba bei sąveika su kitais Ukrainos agrarinio sektoriaus saugumą lemiančiais faktoriais.

Reikšminiai žodžiai: ekonominis saugumas, agrarinis sektorius, konceptas, įrankis, mechanizmas, modelis.

JEL kodai: O13; Q18.