МЕТОДИЧНІ ПІДХОДИ ДО ВИЗНАЧЕННЯ СТРУКТУРНИХ ДИСПРОПОРЦІЙ В КОНТЕКСТІ СТРАТЕГІЧНИХ ПЕРСПЕКТИВ РОЗВИТКУ АГРАРНОГО СЕКТОРУ ЕКОНОМІКИ

Актуальність. В економіці України існують макроекономічні, між- та внутрішньосекторальні, регіональні диспропорції, поява яких обумовлена структурою економіки, що склалася, орієнтацією на сировинний експорт, низькотехнологічні виробництва, нерівномірним міжгалузевим розвитком, невідповідністю між потребами регіонів та їх віддачою та багатьма іншими причинами. Наявність цих диспропорцій не тільки гальмує розвиток економіки, але й загрожує економічній безпеці України.

Мета та завдання. Враховуючи означені стратегічні напрями в роботі поставлено наступні завдання: визначити фактори впливу на економіку та її сектори, що ведуть до виникнення структурних диспропорцій, визначити особливості притаманні агропромисловому сектору, виділити та систематизувати фактори впливу з метою розробки стратегії та системи управління на засадах резильєнтності, розробити методичні підходи до виявлення структурних диспропорцій в агропродовольчому секторі економіки.

Матеріали та методи. Виявлення структурних диспропорцій, оцінка їх дії та глибини виконана з використанням методів аналізу та синтезу, наукового абстрагування та статистичного групування, що дозволило провести аналіз природи процесу утворення диспропорцій, визначити найбільш стійкі порушення пропорційності на всіх рівнях розвитку агропродовольчого сектору з метою цільового застосування превентивних заходів попередження їх негативної дії та конструктивного виходу з кризових ситуацій.

Результати. З точки зору аксіоматики теорії складних систем з'ясовано механізм виникнення структурних диспропорцій, як відповіді на високий рівень складності, швидку зміну факторів впливу, що визначають динаміку розвитку агропродовольчого сектору економіки та чисельні ризики, обумовлені невизначеністю, яка приводить виникнення конфлікту між окремими підсистемами АПК. Визначено приоритетні зони диспропорційності шляхом дослідження структури сукупності за окремими ознаками.

Висновки. Забезпечення стійкого розвитку країни та її економічної безпеки досягається спроможністю протистояти дії зовнішніх та внутрішніх факторів, існуючих та новостворених на будь-якому економічному рівні диспропорцій. Визначено особливості стратегії розвитку секторів економіки на засадах резильєнтності. Показано, що реалізація таких стратегій, для будь-якого сектору економіки, базується на обґрунтованому цілеспрямованому розгортанні і впровадженні чіпіваннях основних інновацій і перетворення інтересів гравців ринку.

Ключові слова: аграрний сектор економіки, структурні диспропорції, технологічність виробництва, економічна безпека, резильєнтність, підприємницький сектор.

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METHODOLOGICAL APPROACHES TO THE DETERMINATION OF STRUCTURAL DISPROPORTIONS IN THE CONTEXT OF STRATEGIC PERSPECTIVES OF THE DEVELOPMENT OF THE AGRICULTURAL SECTOR OF THE ECONOMY

**Topicality.** In the economy of Ukraine, there are macroeconomic, inter- and intra-sectoral, regional disparities, the appearance of which is due to the existing structure of the economy, the focus on raw material exports, low-tech production, uneven inter-sectoral development, the discrepancy between the needs of the regions and their returns, and many other reasons. The presence of these disparities not only slows down the development of the economy, but also threatens the economic security of Ukraine.

**Aim and tasks.** Taking into account the specified strategic directions, the following tasks are set in the work: to determine the factors influencing the economy and its sectors, which lead to the emergence of structural disparities, to determine the peculiarities inherent in the agro-industrial sector, to identify and systematize the influencing factors in order to develop a strategy and management system based on resilience, to develop methodological approaches to identifying structural disparities in the agrifood sector of the economy.

**Materials and Methods.** Identification of structural disparities, assessment of their effect and depth was carried out using methods of analysis and synthesis, scientific abstraction and statistical grouping, which made it possible to analyze the nature of the process of formation of disparities, to determine the most persistent violations of proportionality at all levels of development of the agro-food sector with the aim of targeted application of preventive measures that prevent their negative impact and constructive way out of crisis situations.

**Research results.** From the point of view of the axiomatic of the theory of complex systems, the mechanism of the emergence of structural disparities has been clarified, as a response to a high level of complexity, a rapid change in influencing factors that determine the dynamics of the development of the agro-food sector of the economy, and numerical risks caused by uncertainty, which provokes the emergence of conflict between individual subsystems of the agricultural sector. Priority zones of disproportionality were determined by studying the structure of the population according to individual characteristics.

**Conclusion.** Ensuring sustainable development of the country and its economic security is achieved by the ability to resist the action of external and internal factors, existing and newly created at any economic level of disparities. The peculiarities of the strategy for the development of economic sectors on the basis of resilience are determined. It is shown that the implementation of such a strategy, for any sector of the economy, is based on a well-founded objective and the conclusions of the analysis of modern challenges and the intersection of the interests of market players.

**Keywords:** agrarian sector of the economy, structural disparities, technological production, economic security, resilience, entrepreneurial sector.

**Problem statement and its connection with important scientific and practical tasks.** Taking a leading place in the system of global food security, Ukraine remains an exporter of agricultural raw materials, a country with a low level of technological development. The country's strategic perspective consists in integration into a highly competitive civilization space. The national agro-food complex, as a leading sector of the economy and an important component of the technological core of the business sector, cannot help but respond to the challenges of the times and must use the achievements of the technological revolution, which the world agriculture is oriented towards. Otherwise, the position of the leader in quantitative and qualitative characteristics of the manufactured products will be lost. Such a change of vector is a difficult task for a country that is waging a war and has irreparable losses in the near future. At the same time, the revival of the country should be accompanied by new management initiatives to support start-ups that are able to maintain the country's position in global food security and increase the innovative image of Ukraine.

The identified future orientations do not collide with the realities of the present. Prospects for high-tech development of countries in the future are hampered by existing structural disparities of various levels and depth, orientations towards technological systems, which for the leading countries of the world are a passed stage, orientation of investment activity not in the direction of the latest innovative developments in the agricultural sphere. Thus, in terms of output, funding of research and development, spending on innovation, investments in technical rearmament and modernization of production, which correspond to 5-6 technological systems, Ukraine does not even reach 1%, which is a threat to the competitiveness of the Ukrainian economy. A step towards changing the situation in the agro-food
sector of the economy is the comprehensive overcoming of disparities, those that have existed for decades and continue to exist, and those that are currently emerging, eliminating the conditions for their occurrence and mitigating their impact on the agro-industrial complex economy. A methodical approach to their definition and the formation of a resilient response to their action determine the relevance of the scientific problem highlighted in the article.

Analysis of recent publications on the problem. Butenko A.I., Shafman N.L., Sokolova O.M., Sergienko O.A., Golofaieva I.P., Shavlak M.A., Nosyriev O.O., Mykhailychenko N. M. and others considered the theoretical aspects of determining disparities in various sectors of the economy in their works. This issue in the context of the agricultural sector of the economy was considered by such scientists as Golyan V. and Shostenko L.

Allocation of previously unsolved parts of the general problem. Despite the contribution of scientists to the development of this direction, methodological approaches have not yet been developed that would allow for a comprehensive analysis of disparities in the agrarian sector of the economy.

Formulation of research objectives (problem statement). Taking into account the specified strategic directions, the following tasks are set in the work: to determine the factors influencing the economy and its sectors, which lead to the emergence of structural disparities, to determine the peculiarities inherent in the agro-industrial sector, to identify and systematize the influencing factors in order to develop a strategy and management system based on resilience, to develop methodological approaches to identifying structural disparities in the agri-food sector of the economy.

Materials and Methods. Identification of structural disparities, assessment of their effect and depth was carried out using methods of analysis and synthesis, scientific abstraction and statistical grouping, which made it possible to analyze the nature of the process of formation of disparities, to determine the most persistent violations of proportionality at all levels of development of the agro-food sector with the aim of targeted application of preventive prevention measures their negative impact and constructive way out of crisis situations.

An outline of the main results and their justification. The agro-industrial complex of Ukraine is considered as a strategic sector of the national economy, which carries out the production of agricultural products, their industrial processing and sale to the consumer. Agriculture ensures food, economic, environmental and energy security, development of technologically related industries and rural areas.

According to the government, the vision of this sector is considered from the point of view of the country's place as a leader in the system of global food security and supply of food with high added value (Economic recovery center, 2020).

Any sector of the economy, as a socio-economic-ecological system and an element of the general economic system, is characterized by a high level of complexity, a rapid change in influencing factors that determine the dynamics of its development, and numerous risks due to the uncertainty of economic processes. At the same time, the economy itself, as a system of great complexity, is a subsystem of society, along with political, social, and cultural subsystems, dependent on all its other components.

The analysis of this problem in the scientific literature is based on the definition of at least four components, which collectively form an impact on the economy and its sectors:

1. management efficiency;
2. degree of development of society and priorities of its development;
3. investment attractiveness of the country;
4. political system;
5. efficiency of government.

In addition, the economy is hierarchical both by levels of management and by place in the global economic system. From the standpoint of systemic consideration, global factors influencing the national economy are considered external, and the state of the national economy is the result of the influence of both external and internal factors.

It should also be taken into account that the national economy in the transition period experienced significant institutional failures, lack of complementarity of individual institutions. They persist to this day and cause determinism at the micro level and uncertainty at the macro level, which provoke the emergence of conflict between individual subsystems and elements. The intensity of the conflict, which is determined by the complex hierarchy of connections and functions between subsystems, can increase or decrease, but according to the theory of complex systems, it is the driver of the development of economic and ecological systems. There is also some uncertainty about whether the necessary development strategy for the relevant sector of the economy and appropriate approaches to change its management will be found (Vitlinskyj et al., 2002).
- a clear understanding of the possibility of realizing the defined goals under the conditions prevailing in the relevant sector of the economy;
- reliable knowledge about the action of certain processes, possible risks, expected effects and costs, conditions for the implementation of management decisions;
- understanding the vectors of changes in system parameters as a result of managerial influences in the absence of information or lack of knowledge.

It follows from this that the process of forming a goal, its deployment in time and in a given information space and, finally, its implementation (goal setting) also has a certain uncertainty and therefore needs to be adjusted in accordance with the changes that have occurred, directly in the period when such adjustments are needed. In this case, we talk about the varieties of the concept of uncertainty.

In addition to external uncertainty, there is also internal uncertainty of the system's development, due to the lack of an idea about its future development depending on the decisions that need to be made. Also, the degree of uncertainty depends on the correct definition of the criteria for choosing a development strategy and the prediction of possible factors opposing its implementation.

Thus, the determination of the procedure for finding new goals in the process of implementing strategic tasks is another axiomatic postulate of the theory of complex systems, which was emphasized in the economic literature of recent years, but was not implemented in any management initiative at any hierarchical level of management in relation to any - what sector. This is somewhat understandable, since the higher the degree of uncertainty, the more difficult the management decisions will be. And this is the next managerial axiom.

Thus, at any level of management of the business sector, it is necessary not only to expect the appearance of external and internal risks inherent in both the national economy and this type of activity, but also to generate a preventive strategy to avoid their negative effects. Characteristic of these processes is the factor of certain subjectivism and the influence of factors of information resistance (absence or hiddenness of information, misinformation), variety of risks, insufficient qualification of persons involved in the management process. Weakening the effect of subjectivism is possible under the conditions of improving the informatization of management decisions, defining the characteristic features of uncertainty (list of events, frequency of their occurrence, degree of repetition, unexpectedness of appearance), implementation of sectoral management templates and prevention of possible risks.

Visualization of this state and a unified model of the functioning of the economic sector in conditions of uncertainty are presented in Fig. 1.
Summarizing the information from the given figure, it can be stated that any sector of the economy is a complex system consisting of relevant subsystems that form certain properties that are different from the properties of the subsystem level. In the classical sense, in complex systems there is no clear relationship between the state of the system and the vectors of their change, and therefore it is quite difficult to predict the state of the system. At the same time, the sector is a component of the economic subsystem, which feels the influence of other subsystems (political, social, cultural), which, in turn, interact as part of the most generalized system represented by society. According to the interpretation of V. Pareto, all the listed parts of the social system are interconnected and mechanically influence each other. The existing definitions of the social system, which is considered as a whole entity, do not deny the fact that that society is in a state of relative equilibrium that is constantly disturbed and restored (Dvoretska, 2002). The entire given system is in a state of uncertainty, the understanding of the essence of which is multidimensional (from a lack of information to a low degree of predictability), which leads to the emergence of many options for possible results (consequences) of certain situations or decisions, when it is impossible to predict or even calculate the probability of their occurrence.

To set goals and realize prospects for their achievement, you need to understand the causes of uncertainty, be aware of and organize your actions, minimizing efforts. The ability to adapt to changes that cause uncertainty as a risk factor is the main condition for the successful operation of the business sector.

Therefore, it is expedient to determine the specific features of the agro-industrial sector, to identify and systematize influencing factors in order to choose the right strategy and develop an effective management system.

As you know, the theory of entrepreneurial activity and practical experience provide for a considerable number of basic economic strategies that ensure the achievement of relevant development goals based on a set of certain actions and attitudes. Among the existing strategies, the most important is the ability to constructively exit crisis situations. This ability of the subject of entrepreneurial activity was called resilience, which implies the presence of certain opportunities, the totality of which forms the ability to be attracted to the most effective market actors.

The formation of this kind of strategy is a relatively new field of activity that has not yet received a full theoretical definition in economic research, but the essence of such a strategy is clear - the formation of a management model and preventive mechanisms for countering destabilizing factors in the development of economic sectors.

According to the existing definition, resilience is a strategy that is able to maintain balanced development and successfully resist external and internal challenges; anticipate and neutralize these challenges (Bozhok et al., 2021). For the economy, this definition is quite new, but based on the meaning of this category, it is possible to formulate the directions of the economic interpretation of this term, defining its economic essence in the following directions:

- forecasting adverse events for the economic sector and getting out of the state of their influence with a certain potential for recovery;
- activation of protective factors and adaptation to changes (self-regulation);
- implementation of protection mechanisms against factors that threaten the functioning of the economic sector as a system with its components;
- adaptation to realities with a focus on positive changes;
- the result of certain processes in a certain time dimension;
- loss prevention as a percentage of potential losses.

The implementation of such a strategy is based for any sector of the economy on a well-founded objective and the conclusions of an in-depth analysis of modern challenges and the intersection of the interests of market players. The task is quite complex, but relevant, as the result will be a kind of prognostic model of managerial influences shaping the development of the economic sector in the form of economic security and sustainability.

Economically, security is a multi-level concept and implies sustainable economic growth; comprehensive satisfaction of economic needs; protection of the country's economic interests at the national and international levels. Therefore, economic resilience is a function of many components that form its dimension. Not all components can be valued equally, for many reasons. But the choice of the trajectory of the analysis should be such that it foresees the occurrence of any crises that destroy or inhibit the achievement of the goal. That is why resilience should be considered as a guarantee of economic security for the development of economic sectors.
The other side of the process of strategy formation is justified goal setting, which involves the use of certain methodical approaches (Fig. 2).

The goal-setting technology involves the following actions:
- the formulation of the goal should be related to the result, that is, the goal of the activity is defined as an anticipatory reflection of the future result of the functioning of the economic sector, and as the final result - the effects that society will receive;
- the expected result must be measurable and justified from the point of view of resource availability;
- the result must meet the needs of the time and be limited in the time of achievement.

Fig. 2. Peculiarities of the strategy for the development of economic sectors on the basis of resilience

Source: author's development

Implementation of these directions involves:
- determining the necessity of the goal;
- maximum specification of the result;
- assessment of conditions for achieving expected results;
- determination of indicators of goal achievement.

In the context of the defined strategic directions, the tactics of economic stability provide for a number of sectoral directions, which, for the conditions of a country in a state of war, have, in addition to general, specific features formed on the basis of an analysis of economic consequences, namely:
- maintaining the level of production;
- saving critically limited resources;
- transfer of business activity to other places;
- increasing the efficiency of business operations;
- use of import substitution;
- conclusion of new contracts, creation of new partnerships, information exchange centers;
- strengthening institutions and creating the necessary institutions for the purpose of inclusive and sustainable development of economic sectors.

As can be seen from the above list of measures,
they are aimed at prevention and quick exit of economic entities from any crisis situations in case of their occurrence. Undoubtedly, they reduce growth rates, and therefore it is necessary to determine the most effective actions in the context of structural transformations or in other areas that have an impact on structural policy.

Disparities in the economy indicate an imbalance of economic development between sectors of the economy, within inter-industry complexes or regions of the country. This means an uneven distribution of resources, income, and investments between different sectors of the economy, which leads to inequality and imbalance. The analysis of structural disproportions in the business sector, in particular in the agrarian sector of the economy, in the context of strategic prospects for economic growth is an important task for determining the main problems and possible directions of development of this sector of the economy in order to overcome the identified disparities.

The analysis of structural disparities in the agricultural sector and the development of strategic prospects for economic growth is a complex process that requires the determination of a methodical approach to the analysis in order to identify disparities as much as possible and identify the range of problems that require immediate resolution.

When analyzing the agricultural sector and determining strategic prospects for economic growth, it is appropriate to consider structural disparities at three levels:

1. Structural disparities between different sectors of the economy, including the agricultural sector (determining the availability of capital, technology and other resources). This will reveal the inequities and identify the need for infrastructure development and support to avoid these disparities.

2. Structural disparities between various spheres of agriculture (determining the level of development of various branches of the agricultural sector, their competitiveness and efficiency). This will allow identification of industries that require special attention and investment to achieve greater economic growth.

3. Structural disparities in the regional context (estimation of the level of development of the agricultural sector in different regions and identification of regions with the greatest potential for development). Taking into account regional characteristics, access to markets, infrastructure and support from the government will help identify opportunities for growth and expansion of enterprises in these regions.

The following criteria can be used to analyze the structural disparities of an economic nature in the agricultural sector within the defined levels:

1. Disproportions in production volumes.

Intersectoral disparities reflect differences in production volumes between different sectors of the economy. For example, there may be industries that have large production volumes, such as the automotive industry or electronics, compared to other industries, such as cultural and creative or social sectors. This may be due to different demand, investment opportunities, level of technological development or other factors.

In the context of the agro-industrial complex, disparities can be observed between sub-sectors such as crop production, animal husbandry, fisheries, forestry, etc. Production volumes may be uneven due to various factors such as climatic conditions, access to resources, market demand or support policies.

In the regional context, disproportions in production volumes can be related to the characteristics of each region, its potential and development. Different regions may have differences in the distribution of resources, access to markets, the state of infrastructural support and technological development. For example, regions with favorable climates and fertile soils may have advantages in crop production, while regions with limited resources or less favorable conditions may be more competitive in other industries, such as livestock or the cultivation of certain crops.

The best indicator in this case can be the gross domestic product (GDP), which characterizes the cost of production of goods and services for consumption in the country.

2. Disparities in innovative activity.

Intersectoral disparities reflect different levels of innovation activity. For example, high-tech sectors such as information technology or biotechnology are often characterized by high levels of innovation and research. At the same time, other industries, such as traditional agriculture or services, may lag behind in the development and implementation of innovative solutions. This may be due to limited resources, insufficient attention to research and development, or lack of necessary innovation management skills.

Within the agro-industrial complex, disproportions in innovative activity can also be found. Some areas, such as agriculture, may have a relatively low level of innovation due to reasons such as conservative approaches to production, limited access to the latest technologies, or the difficulty of implementing innovative changes in
traditional business models. At the same time, other branches of the agro-industrial complex, such as the food industry, can be leaders in innovative activities, since they more often apply new technologies (biotechnologies), production methods and processes.

Some regions may have developed innovation ecosystems that facilitate the attraction of investment, the development of scientific research and cooperation between business, universities and government bodies. These regions can have a high level of innovation in the agro-industrial sector. At the same time, other regions may lag behind in the development of innovative solutions due to insufficient resources, limited access to scientific and technical infrastructure and insufficient favorable innovation and scientific and technical policies.

3. Disparities in foreign trade.

Disparities in foreign trade can occur both at the level of economic sectors and within the agro-industrial complex (between subsectors).

Different sectors of the economy may have different levels of exports and imports. In developed countries, high-tech sectors such as information technology or mechanical engineering are often marked by high export volumes because they have a competitive advantage in the international market. At the same time, other sectors, such as agriculture or light industry, may have lower export volumes due to limited competitiveness or high domestic needs.

Disparities in foreign trade can also be observed within the agro-industrial complex. For example, some areas, such as the export of agricultural products or the sale of food products, can have a significant contribution to the country's foreign economic activity. On the other hand, imports of agricultural machinery, equipment or chemicals may be large in volume to meet the domestic needs of the agro-industrial sector.


Investment disparities, again, can occur at all three levels of analysis.

Intersectoral disparities may arise because different sectors of the economy may have different levels of investment attractiveness. High-tech sectors such as information technology or pharmaceuticals typically attract significant investment due to their research and development potential and high profitability. At the same time, less attractive sectors, such as traditional agriculture or light industry, may suffer from investment shortages due to low profitability or limited capacity for innovation.

In the context of the agro-industrial complex, disparities arise because some sectors, such as agriculture, food processing or the production of agricultural machinery, can attract significant amounts of investment because of their potential for development, demand for their products and export opportunities. At the same time, other sectors, such as the development of agricultural services or infrastructure, may have limited investment flows due to low returns or difficult market conditions.

Disparities in investment at the level of regions are observed because some regions may have more favorable conditions for attracting investment, such as developed infrastructure, access to markets, availability of skilled labor or favorable business conditions. These regions can receive significant amounts of investment in the agro-industrial sector, which contributes to its development and competitiveness.

At the same time, less developed regions may suffer from investment shortages due to limited resources or insufficient infrastructure. This may affect the development of agriculture, industrial production or services in these regions. Insufficient investment can lead to a decrease in the level of competitiveness and limit opportunities for expanding production and developing new sectors.

5. Disproportions in the distribution of land resources.

Disparities in the distribution of land resources can exist both at the level of various spheres of the agro-industrial complex and at the regional level.

Within the agro-industrial sector, there may be inequalities in the distribution of land resources between different elements of agriculture. For example, some areas, such as the cultivation of grain, oil and technical crops, can occupy much larger areas, since they are traditional, profitable and widespread species in crop production. At the same time, new and more innovative industries, such as organic farming, experience restrictions in access to land resources, as they may be less common and require ecologically clean land to develop.

Disparities in the distribution of land resources between different regions exist due to the fact that some regions may have large areas of agricultural land and be specialized in the cultivation of specific crops or the development of certain branches of the agro-industrial sector. This may be due to natural conditions, climatic factors or historical factors. At the same time, other regions have limited land resources or are less favorable for agricultural development due to poorer soil conditions or climatic constraints.

6. Disparities in employment and personnel
training.

Can occur at all three levels of analysis.

Different sectors of the economy may experience inequalities in employment, as some sectors, such as services, information technology or the financial sector may have a high demand for labor and offer more career opportunities. At the same time, agriculture, fishing or forestry may experience employment restrictions due to seasonality of work, high dependence on natural conditions or insufficient development of these industries. At the same time, in the cross-sectoral aspect, disparities in personnel training can also be observed due to the uneven distribution of educational resources and insufficient adaptation of educational programs to the needs of the labor market.

Within the agribusiness sector, employment inequalities exist between different sectors because some sectors of the agribusiness complex, such as growing vegetables or processing products, may be more labor intensive, resulting in higher employment in these sectors compared to others.

In a regional context, disparities in employment arise because certain regions may have high levels of employment in the agro-industrial sector, especially if they specialize in agriculture or labour-intensive sectors of the agro-industrial complex. For example, regions with fertile soils and a favorable climate may have greater opportunities for agricultural development, which provides more employment in these areas. However, other regions, particularly those that are remote or land-poor, may experience higher levels of unemployment in the agricultural sector. In such cases, the diversification of the economy and the development of other industries that can provide new jobs can be important strategic directions for increasing employment in these regions.

A generalization of the above approaches to the analysis of structural disproportions of an economic nature, taking into account the role of the agricultural sector, is presented in Table 1.

To assess the possibility of making calculations, the availability of information based on statistical observation data, which is publicly available, was considered, and as a result, it was determined that for some of the proposed indicators, there is no possibility of conducting an analysis of structural disparities based on the availability of statistical observation data, namely:
- GDP of the agricultural sector subsector;
- Costs for innovation of a certain sector of the economy;
- Costs for innovations in a certain area of agriculture;
- Employment in the agricultural sector subsectors.

Disproportions are violations of relationships in the economy as a whole, its individual sectors and regions, and even enterprises. The emergence of disparities is caused both by the results of economic policy in the country (subjective factor) and by the action of external factors that cannot be changed instantly, or even in the near future, by managerial influences, but which can radically change economic conditions, disrupt the operation of market mechanisms and to intensify the search for mechanisms to prevent them in the future. These are factors (of an objective nature) that significantly change the economic conditions of management (changes in climatic conditions and the emergence of their consequences, in particular in the agricultural sector, price dynamics of markets, lack of resources, recessions and periodic crises in the economy, etc.). The nature and depth of factors influencing social reproduction and its phases.

The national economy is characterized by the presence of specific processes that, by virtue of their action, cause the appearance and depth of structural disparities. Among the main ones, the following can be distinguished:
- critical dependence of the national economy on the conditions of foreign markets;
- the raw nature of exports and the low specific weight of products with a high share of added value;
- a change in the strategy of reforming the economy, directions and priorities brought by each new political force, which leads to the inhibition of previous reforms and refusal to comply with the traceability policy;
- insufficient efficiency of economic institutions, which, as practice shows, do not always contribute to economic growth and well-being of the country, control imbalances and the level of poverty;
- the difficult foreign and domestic political situation in the country, which is in a state of war;
- low level of development of the stock market, which does not fulfill the function of attracting investment resources and does not ensure economic growth;
- insufficient investment attractiveness and a policy that does not provide sufficient guarantees for investors;
- low capitalization of enterprises, which inhibits the innovative development of the economy;
- lack of real steps to revive the structure of the country's economy; creation of new jobs,
preservation of an attractive business environment, elimination of the shadow sector.

The identification of structural disparities should be accompanied by the availability of a statistical base and their assessment. The analysis was carried out using statistical products prepared by the State Statistics Service and its territorial bodies in accordance with the plan of statistical observations. It should be noted that the vast majority of structural disparities recorded at the macroeconomic level according to official statistics are practically impossible to trace at the regional level due to the lack of information at the level of territorial statistical bodies and the absence of primary information from enterprises.

Table 1

<table>
<thead>
<tr>
<th>The level of structural disparities</th>
<th>Structural disparities between different sectors of economic activity</th>
<th>Structural disproportions between different spheres/elements of the agricultural industry</th>
<th>Structural disparities in the regional context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signs of structural disproportions</td>
<td>Indexes</td>
<td>GDP of the agricultural sector subsector</td>
<td>GRP of the region's agricultural production</td>
</tr>
<tr>
<td>1. Disproportions in production volumes</td>
<td>GDP of a certain sector of the economy (according to the production method - the difference between gross output and intermediate consumption) (Inflation rate, GDP in actual and comparative prices)</td>
<td>GDP of the agricultural sector subsector</td>
<td>(Output at basic prices) (Distribution of agricultural land by region)</td>
</tr>
<tr>
<td>2. Disparities in innovative activity</td>
<td>Costs for innovation of a certain sector of the economy Expenditures for the GDR in a certain field of science</td>
<td>Costs for innovations in a certain area of agriculture</td>
<td>Expenditures for the GDR in the field of agricultural sciences of the region</td>
</tr>
<tr>
<td>3. Disproportions in foreign trade</td>
<td>-</td>
<td>Foreign trade balance (the ratio of the export of goods and services of a certain area of agriculture to its import in annual terms)</td>
<td>-</td>
</tr>
<tr>
<td>4. Disparities in investments</td>
<td>Capital investments of a certain sector of the economy Efficiency of capital investment (percentage of capital investment in GDP)</td>
<td>Capital investment of a certain element of the agro-industrial complex</td>
<td>Capital investments in the field of agricultural production of the region</td>
</tr>
<tr>
<td>5. Disproportions in the distribution of land resources</td>
<td>-</td>
<td>Use of land resources (used to available land area)</td>
<td>The ratio of the area of organic land to the total area of land use</td>
</tr>
<tr>
<td>6. Disparities in employment and personnel training</td>
<td>Employment of the active population in sectors of the economy Training of specialists in higher education in a certain field of knowledge</td>
<td>Employment in the agricultural sector subsectors</td>
<td>Employment in agricultural production of the region</td>
</tr>
</tbody>
</table>

Source: author’s development

Another problem is the assessment of the dynamics of structural disparities over time. The definition of the assessment method means the use of tools that will allow identifying the points of in-depth analysis of disparities with the aim of further developing a strategy to overcome them, i.e.
leveling differences in the development of territories, spheres of economic activity, as components of the national economy and inter-industry complexes. There are various approaches in the theory of statistics that allow evaluating their dynamics in a certain time period by comparing relative indicators or calculating the corresponding variation indicators. There are examples of the use of statistical and econometric analysis of territorial development disparities (Sergienko et al., 2016).

The task of assessment is the selection of applied tools for diagnosing structural disparities, which will allow not only detecting them, but also to assess the degree of their depth in order to correct or prevent undesirable sectoral trends.

As for the time period of the assessment, you can choose a fairly large range of analysis, starting from 2000 (2010, 2015) to the present time and visualize only the dynamics of the disparities identified. This is a rather time-consuming option and, moreover, the results of such an analysis determine only the vector of changes and do not determine the degree of deepening of disparities.

There is another option, which consists in the combination of the time period selected based on the availability of information and the simultaneous ranking of the detected disparities by the degree of depth. The technique that allows you to perform an analytical study is the method of statistical grouping. It will allow you to solve the following problems: identify types of disparities; to investigate the structure of a homogeneous population, to determine the number of groups and their boundaries. Ultimately, the further course of the analysis of the deepest disparities will become clear. The number of intervals will correspond to the number of pre-defined qualitative populations. The limits of the intervals will correspond to the final purpose of the grouping. In order to determine the qualitative characteristics of structural disproportions, the ranges of variation of the specified disproportions were calculated. Equal intervals were used. The width of the range will be determined for each individual indicator.

The size of the interval when grouping using equal intervals is determined by the formula:

\[ h = \frac{X_{\text{max}} - X_{\text{min}}}{n}, \]

where

- \( h \) is the value of the interval;
- \( X_{\text{max}} \) – the maximum value in the sample of the indicator by which the grouping was carried out;
- \( X_{\text{min}} \) – the minimum value of the indicator in the sample;
- \( n \) is the number of groups.

The value of \( n \) is taken as 7. Each interval is a level of disparity.

In this way, we obtain a variation series of values (Table 2). Despite the fact that the range of variation \((X_{\text{max}} - X_{\text{min}})\) shows a difference in the limit values, which gives it an unstable character, the given calculations allow to determine to a certain extent the qualitative characteristics of the disproportions that have developed in the agricultural sector.

**Table 2**

<table>
<thead>
<tr>
<th>Level of disparity</th>
<th>Description of the level of disparity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High positive disparity</td>
<td>Indicates a significant unequal distribution with respect to the value in the sample. In this case, a sector of the economy, an element of the agricultural industry or a region can have a significantly higher level of development and success compared to others.</td>
</tr>
<tr>
<td>Average positive disparity</td>
<td>Indicates moderate inequality, where a value in the sample may indicate a slightly higher level of output, income, or development than others.</td>
</tr>
<tr>
<td>Minimal positive disparity</td>
<td>At this level, inequality is quite small, but there is still a small gap.</td>
</tr>
<tr>
<td>Lack of disparity</td>
<td>Indicates the correspondence of the value in the sample to the conditional average value of the indicator.</td>
</tr>
<tr>
<td>Minimal negative disparity</td>
<td>At this level there is little inequality, the value in the sample may indicate a slightly lower level of development, income or performance compared to others, but the gap is small.</td>
</tr>
<tr>
<td>Average negative disparity</td>
<td>Indicates moderate inequality, where some values in the sample may indicate markedly lower levels of output, income, or development.</td>
</tr>
<tr>
<td>High negative disparity</td>
<td>At this level, there is significant inequality in terms of size in the sample, where certain sectors of the economy, agro-industrial complex or regions have a significantly lower level of development or success compared to other sectors.</td>
</tr>
</tbody>
</table>

Source: author's development
disparities at each of the specified levels. This methodical method will allow to provide an assessment of quantitative and qualitative changes in space and time, in comparison with other countries, to assess critical levels (ranges) of disparities, to carry out certain rankings across territories and to determine the interdependence and mutual influence of the disparities identified.

Conclusions and perspectives of further research. Overcoming existing structural disparities and preventing future violations of proportionality in the agri-food sector of the economy should be considered as the most important vector of the state structural policy, as a management response to changes in economic realities that threaten the country and the stability of its position on the world food market. The result of these actions on the part of the state should be comprehensive support for initiatives related to the development and implementation of high-tech production, processing, storage and transportation of agricultural raw materials and food products, reorientation of exports exclusively to products with high added value. For Ukraine, this means the need to develop a global agricultural strategy, which should highlight potential market players, industry development trends in the context of global challenges, and create an economic space for the development of the entrepreneurial sector in the agricultural sector. To concentrate on the development of even the most successful sectors at the moment means guaranteed loss in a few years. For transnational agribusiness, investments directly in agricultural production are no longer relevant. Therefore, the prospects for reforming the agricultural sector should be considered in the direction of increasing capitalization, providing the industry with donor funds, and introducing modern technologies. For Ukraine, this is transformed into opportunities to overcome the disproportionality of the development of the domestic agricultural industry, the creation of a powerful agro-production sector, growth and improvement of its competitiveness.

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