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IMPLEMENTÁCIA METÓD MAKROEKONOMICKEJ ANALÝZY NA TRH S POĽNOHOSPODÁRSKÝMI VYROBKAMI V EURÓPSKEJ ÚNII

METHOD FOR IMPLEMENTING THE MACROECONOMIC ANALYSIS OF THE AGRICULTURAL MARKET OF THE EUROPEAN UNION

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Tento článok zdôvodňuje potrebu makroekonomickej analýzy poľnohospodárskeho trhu Európskej únie. Vymedzuje teoretické a metodologické prístupy k makroekonomickej analýze a naznačuje možnosti jej implementácie. Navrhuje algoritmus vykonávania a kritériá na hodnotenie úrovne formovania poľnohospodárskeho trhu. Článok poukazuje na to, že makroekonomická analýza agrárneho trhu by sa mala začať analýzou jeho formovania. Nástrojom takejto analýzy bude zistiť integritu zložiek poľnohospodárskeho trhu. Druhou fázou bude analýza fungovania poľnohospodárskeho trhu. Vykonáva sa určením efektívnosti trhu, ktorý plní svoje hlavné funkcie.

Kľúčové slová: makroekonomická analýza, poľnohospodársky trh, trhové funkcie, trhové subsystémy

The article substantiates the need for a macroeconomic analysis of the agricultural market of the European Union. Theoretical and methodological approaches to such an analysis are determined and the directions of its implementation are indicated. An algorithm of implementation and criteria for assessing the level of the agricultural market formation are proposed. During the process of the research it was found that the macroeconomic

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analysis of the agrarian market should start with the analysis of its formation. The instrument of such analysis will be to establish the integrity of the constituents of the agricultural market. The second stage of the analysis will be an analysis of the functioning of the agricultural market. It is carried out by determining the effectiveness of the market performing its main functions.

Key words: macroeconomic analysis, agricultural market, market functions, market subsystems

JEL: L11, N14, N5

1 INTRODUCTION

Social orientation of the current agricultural policy of the European Union is embodied in the complete provision of the population with food products in the necessary assortment and at affordable prices. World practice has long confirmed and continues to confirm on all continents the possibility of an exhaustive solution to this problem on the basis of the market version of the public production organization. The United States and the European Union countries have now achieved self-sufficiency in food products and export them outside their territories. The agricultural sectors of China (Pan 2012), many African countries, Australia and New Zealand are growing production rapidly. Therefore, the course of the countries of Eastern Europe towards the transition from an administrative-command to a market economic system at the end of the last century was quite justified and lawful. It should contribute to their formation as social states, primarily in terms of a comprehensive solution to the food problem.

However, many difficulties arose in this course in many countries — Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, and others (Roemer and Jones 1991). So, the per capita consumption of the most biologically complete food products of animal origin – meat, milk, eggs, fish – first decreased to 40-60% of scientifically based norms. Although the total calorie content of the daily diet was provided at the highest level – more than 90% of physiological norms, but mainly due to the products of plant origin. Vitamin deficiency was also significant. This unsatisfactory situation was due to the fact that, firstly, there was a drop in agricultural production in all countries of Central and Eastern Europe, which took a course on reform, and the pace of its recovery is quite slow (Graham and Dodd 2009).

The administrative-command levers of managing the agricultural sector in these countries were completely dismantled, so there was every reason to hold the agricultural market, as the successor to the former administrative vertical, liable for the emergence of the food problem. Today, all those countries that have joined the European Union have already resolved the issue of food security, however, the modern market, including the agricultural one, constantly needs modern methods of its organization and management. How to achieve this can be shown by a thorough analysis of the market, which naturally gives rise to the need for its in-depth study.

Over the years of the European Union existence, scientific thought in the field of economic analysis has not stood still. The arsenal of analysis types (managerial,

strategic, financial, etc.) and methods (CVP-analysis, SWOT-analysis, cluster analysis, cost-benefit analysis, etc.) was substantially expanded by the forces of scientists from educational institutions (Leathem 2015). However, its new macroeconomic object – the agricultural market - remained deprived of the researchers attention. Partially this issue was taken up by government officials, who often for the new members of the European Union chose the ideology of state non-interference in the market processes. Thus, we can state that there is still practically no generally accepted methodology for macroeconomic analysis of the agricultural market in the European Union, which requires at least a study of its theoretical foundations.

Accordingly, the purpose of our study, which can only partially be presented in the framework of this article, given its volume, is to develop the theoretical foundations and a set of logical and technical and economic calculation methods for macroeconomic analysis of the state of the agricultural market of such a global entity as the European Union.

2 DEFINITION OF THE AGRICULTURAL MARKET

The initial methodological provision of the agricultural market analysis is the recognition of its leading role in solving the fundamental problems of social and economic development of the European Union and creation of civil society. If we talk about the countries of Central and Eastern Europe, then as a component of the market economic system, the agricultural market naturally replaced the centrally regulated economy, or rather returned after many decades of its undivided dominance (Gudzynskiy 2015). The years of the administrative-command system existence were enough only to demonstrate its inability to progressive self-development on its own basis, and the numerous attempts to reform within the socialist choice framework just emphasized more clearly its futility. However, the cardinal transformation of the economic system does not mean a change in the fundamental guidelines of social development, social goals and priorities of civil society. Moreover, the market is the successor of those public institutions that proclaimed the highest value of a person and decent living conditions for a person. The market changes only the means of solving these humanitarian tasks. It creates the basis and consolidates the real steps of democratizing social relations by creating reliable prerequisites for the manifestation of economic interests on a private basis. Private ownership of results and means of production stimulates and strengthens the economic independence of producers as independent, full citizens. Finally, a return to the market foundations of the economy functioning was a prerequisite for the inclusion of many countries of Central and Eastern Europe in world economic relations, their entry into international associations, unions, conventions and agreements (Gribaudo 2014).

Such a multifaceted role of the market, including the agricultural one, cannot manifest itself automatically. Fortunately, the European Union has long ago abandoned

hopes for "market automation" and therefore the positive opportunities, the constructive potential of the market as an economic system can manifest itself fully. However, how complete this manifestation is must still be investigated. For this, a macroeconomic analysis of the agricultural market of the European Union as a socially important component of its economy, is required.

Analysis is a word of Greek origin and in the general theoretical sense means an independent universal direction of cognition, based on the decomposition, division of the studied material or intangible object (process, phenomenon, event, etc.) into its component parts, the study of each of them separately and in relation, finding out the causes and consequences of informationally accessible quantitative and qualitative changes under observation. In the context of place in the rational management, analysis acts as a means of substantiating managerial decisions. The more detailed and accurate the analytical conclusions are formulated, the more accurate and effective the management will be. The above fully applies to such a complex management object as the agricultural market.

It is recommended to start its analysis with the wording of a comprehensive and complete definition of the agricultural market. Thanks to this, we obtain an adequate integral characteristic of the analysis object and, on this basis, we carry out its division, the allocation of individual components for the corresponding analytical actions. The task of the perfect definition of the agricultural market is to separate, highlight the analysis object among the colossal diversity, the inexhaustible variety of phenomena and processes of the surrounding being, create a general idea of its nature and purpose.

The agricultural market is a part of the so-called commodity market, which sells industrial and consumer goods. Therefore, one could use the definition of the market in the broader sense of the word. However, the market definitions available in the specialized literature regard it as a place of trade, a sphere of exchange, a means of exchanging goods or services, that is, as a passive or even technical, secondary element of the economic system, which contrasts with real life sharply. The times when the market only served production have long gone and now very the market determines what to produce, for whom and in what volumes. Existing market definitions, if applied to the agricultural market, do not create the proper methodological base for either analysis or effective management.

We recommend the following definition of the agricultural market: "The agricultural market is a system of institutions, methods and resources for the implementation of exchange processes, the task of which is to coordinate and manage agricultural production in order to ensure food security and satisfy consumer needs of citizens."

This definition reflects much more fully one of the most significant features of the market economic system, which is that the decision to allocate resources and

production is made on the basis of prices arising in the process of voluntary exchange between producers, consumers and owners of production factors (Pearce 2010, p. 456). Market prices are not a technical element in the implementation of exchange processes, but a means of managing production. Market prices are generated by the market, agricultural and food prices by the agricultural market. That is why it is legitimate to consider it an active coordinating and managing factor of all agricultural production.

3 FIRST STAGE OF THE AGRICULTURAL MARKET ANALYSIS

Understanding the agricultural market as a system is the second distinctive and cardinal feature of the above definition. The system is the antipode of the mechanical aggregate. The systemic nature of the agricultural market allows us to recommend a two-stage scheme or sequence of its macroeconomic analysis. The first stage is an analysis of its formation, the second – its functioning.

Formation of the agricultural market in the systemic sense means its organization, that is, creation of a holistic system of the agricultural market from the necessary components. They can be distinguished by many characteristics, the most important of which are:

- 1) The nature of participation in the system formation;
- 2) Product;
- 3) Role.

According to the first characteristic, within the agricultural market system as a whole a system-forming element and subsystems should be distinguished. A system-forming element is one of the subsystems that, in addition to its own tasks, also performs the task of a system-forming element. The system-forming element of the modern agricultural market is effective demand.

According to the second characteristic, the agricultural market as an integral object of management must be structured into separate product markets (sectors), in which one or several products with the same marketing properties are the subject of sale. Role characteristic applies primarily to an individual food market. There are two main role characteristics:

- 1) Form of trade (wholesale, retail) ;
- 2) Construction of the food market – atomistic or bipolar.

Relationship of the agricultural market with its state regulation should be considered separately. It seems to be outside the market and bears no relation to its composition. However, such an assessment is too superficial. In fact, the levers of state regulation are used to normalize the state of the agricultural market, stabilize its

parameters within socially reasonable limits (Kasianov 2017). This problem can be solved by the market itself, but market mechanisms sometimes do not work and then the levers of state regulation are turned on. In addition, the impact on the market is carried out using mainly market instruments – prices and sales volumes. From these positions, state regulation can be considered as a guarantee that market self-regulation will not “fail”, will work reliably and will ensure its functioning in the interests of the whole society. Therefore, it is recommended to consider state regulation of the agricultural market as one of its role components.

In theoretical terms, special attention should be paid to the territorial characteristic of the agricultural market components classification. In modern economic literature and economic practice, the term "regional market" or the agricultural market of a single country as a territorial unit is often used. Numerous attempts have been made to regionalize even markets for certain types of agricultural products (Fruit juices, with special reference to citrus and tropical fruit juices: A study of the world market 1991). In our opinion, the regionalization of the agricultural market, the allocation of its regional components as purely territorial, is theoretically unlawful. The market is an open system that exchanges matter, energy and information with the environment. Even the allocation of internal and external agricultural market is rather arbitrary. The globalization of the economy is also the globalization of the market. The territorial borders of countries and administrative units within them can turn into an obstacle to the movement of goods only as a result of artificial measures of a non-economic nature, that is, administrative ones. Real world practice is developing in a diametrically opposite direction – formation of interstate unions. After all, the fundamental property of the market is competition – the driving force of a market economic system. To create a regional market means to close, isolate the exchange processes within the framework of a separate territory and limit competitive relations with the same framework. Such tasks were sometimes set only by individual countries and for a limited period. For example, after World War II, Japan did not open its rice market for a long time, protecting its producer from external competition (Tietz 1990). Attempts to localize territorial markets, for example, of milk or grain, by prohibiting their export outside the country, are purely administrative in nature and cannot be regarded as a natural process for the formation of regional markets. On the contrary, the logical process is the formation of a single supranational agricultural market, ensuring the development of competitive relations throughout the European Union and the fullest possible inclusion in world economic relations. So, the territorial classification, regionalization of the agricultural market is unlawful in theoretical and inappropriate in practical terms. The object of analysis may not be territorial regions, but only territorial features of production or marketing of products.

As already noted, the first subsystem and at the same time system-forming element of the agricultural market is solvent demand. Absolute and relative indicators

of its characteristics are the absolute size of the population's income and its dynamics, per capita size, sufficiency to provide food for the population according to scientifically based standards, territorial and group differentiation.

The source of statistical information for the study and analysis of the outlined range of issues may be data on the so-called disposable incomes of the population. Their composition should include the maximum amount of cash income that is intended for use by households to purchase consumer goods and pay for services. These include wages, profits, mixed income, property income balances, social assistance, other cash transfers received, other than those paid, in particular current taxes on income and property. The statistical expression of solvent demand can also be the population's cash income, that is, the receipt of money by the population in the form of wages to all categories of workers, pensions, property income, scholarships and various benefits, income from the sale of agricultural products and the like.

As the analysis shows, over the past ten years, the solvent demand of the European Union population has been constantly growing. However, the absolute amount of disposable incomes cannot be equated with the volume of solvent demand, since these incomes are only a source of demand. Only part of the income is spent for the purchase of food products.

An important subject of analysis of solvent demand is its differentiation by territory and population groups. We can take the national value of the disposable incomes per capita over the past year or several years as a territorial indicator of the amount of solvent demand. The analysis can also include the average monthly nominal wage for EU countries.

The most correct characteristic of the territorial fluctuations of disposable incomes and wages is the coefficient of variation, that is, the percentage of the ratio of the mean square deviation of the variation series to the average value. The following interpretation of the variation coefficient values is given in the specialized literature. If it does not exceed 5%, the variation is considered to be weak, the coefficient value from 6 to 10% indicates moderate variation, from 10 to 20% – significant, from 21% to 50% – large, and more than 50% – very large variation. In our example, the obtained values of the variation coefficient indicate a significant regional variation in disposable incomes and a large variation in the monthly wages of employees in various EU countries. The diversity of population groups is also quite large in terms of the cost per person and the amount of food consumption caused by them. Thus, the solvent demand of the European Union population as a system-forming element of the agricultural market is characterized by significant differentiation by countries and population groups.

The materials for analyzing the process of food market personification are official documents on the creation and tasks of organizations and institutions of this profile. The method of analysis is comparison.

Countries from different continents use different models of food market personification. In Canada, for example, the grain market of the Prairie Provinces personifies the state Canadian Wheat Board. It has a monopoly on trading. Australia's grain market is personified on similar principles. The body of the grain market personification and at the same time of its state regulation is the Australian Wheat Board, which is the only legitimate organization for the sale of wheat in the domestic and foreign markets. In its activities, it is guided by five-year wheat market stabilization programs, which in Australia have the force of law.

The creation of the National Intersectoral Directorate of Grain Management in France was peculiar. This was the result of the leading major grain producers merger with the banking companies that financed them. This country has provided an example of personification, organization and management of food sectors of the agricultural market on an intersectoral basis.

So, the alternative is to choose either purely state or interprofessional institutions and organizations for food markets personification. In our opinion, in the context of the EU's course on the democratic foundations of state formation, the so-called interprofessional approach should be given an unconditional advantage in choosing the method of personifying the food sectors of the agricultural market, which provides for wide opportunities for the participation in the organization and management of food markets of its operators from the supply (agricultural producers) and from the demand side (processing enterprises, sometimes trade).

Information on the availability of exchanges, wholesale food markets, city markets, shops and other retail establishments, company stores of agricultural and processing enterprises serves as a material for analyzing the market environment provision with the market infrastructure elements. With some reservations, agricultural trading houses and marketing cooperatives may be included in the market infrastructure. The fact is that they perform mainly the functions of concentration of the supply and actually act as operators of the agricultural market on the supply side. After all, the main function of trading houses and marketing cooperatives is the sale of products, and not the organization of the interaction of supply and demand. Such an expansion of functions is possible, but exchanges and wholesale food markets perform this function no less successfully. Since the subject of analysis regarding the market infrastructure is the sufficiency of the market provision with its individual elements, in addition to data on these elements, it is necessary to have information about "market-infrastructural" needs. However, this aspect of the analysis of the institutional and legal prerequisites for organizing the agricultural market is only in its infancy. "Market-infrastructural needs" (conditional term) are determined by two main factors:

- 1) The physical volumes of the products offered for sale;
- 2) Market culture of operators.

It is far from easy to reveal the extent of the first factor in modern conditions of the EU. Indeed, a significant part of agricultural products from the production sphere falls into the sphere of final consumption outside the sphere of exchange. First of all, this is a part of the products of personal households of the population, which is not used as commodity and is consumed as food at the place of production by the producers themselves. Secondly, this is another part of the product, which is also used at the place of production as feed for producers' own productive animals. The listed components of gross agricultural production do not fall into the sphere of exchange and do not need any market infrastructure. This also applies to that part of crop and livestock products used at the place of production by the producers themselves as raw materials for industrial processing and further marketing in processed form.

So, theoretically, the constituent parts of the agricultural market and at the same time its subsystems and objects of analysis should be: effective demand (system-forming element), food markets (sectors), channels and prices of wholesale and retail sales of agricultural products and food, presence or absence of integration of the market operators on the supply side, institutions, methods and scope of state regulation of the market processes. The first stage of macroeconomic analysis of the agricultural market is the analysis of its formation, that is, the level of completion of its subsystems formation.

4 SECOND STAGE OF THE AGRICULTURAL MARKET ANALYSIS

The second stage of the analysis is the analysis of the agricultural market functioning. The content of this stage is to determine the completeness of performance by the market of its functions. The effectiveness of the agricultural market functioning depends on this. The term "market functions" means a list of the tasks the market performs and the goals achieved with its help. Given the above understanding of the agricultural market functions and their interpretation in the specialized literature, the following list is recommended: social, identifying market prices, stimulating, selective, coordination and management.

The social function of the agricultural market is the most important and it is advisable to consider it as effective. The agricultural market should provide the population with the proper amount of food and industrial agricultural products, primary goods and basic necessities – clothes and shoes. The ability to purchase goods at affordable prices is also important.

Accordingly, the subject of analysis in this case is the food products consumption per capita per year in dynamics in comparison with accepted standards.

However, when concluding that the agricultural market has insufficiently performed its social function, it would be incorrect to shift on it all responsibility for this. Indeed, two factors directly affect the size of per capita consumption of the food products:

- 1) Incomes of the population and the purchasing power of consumers;
- 2) Availability of a sufficient volume of goods on sale.

Clarification of the reasons for the insufficient fulfillment by the agricultural market of its social function requires an analysis of national labor markets and is beyond the scope of this article. Within its framework, it is necessary and expedient to qualitatively recognize, firstly, the role of the agricultural market in formation of volumes of the agricultural products and food production as a source of commodity supply. Secondly, the logical continuation of the analysis should be the analysis of price signals that the agricultural market generated, and how they stimulated the increase in production by market operators on the supply side and whether these signals ensured the dominance on the market arena of the best producers that could provide consumers with cheap products. In other words, we need an analysis of the fulfillment by the agricultural market of its remaining functions: identifying market prices that are stimulating, selective, that is, how effective and efficient were the financial and economic mechanisms of the agricultural market.

The second one - identification of market prices – means generation of market prices for agricultural products and food as prices that are formed solely under the influence of supply and demand, balanced market prices. This task rests with the market infrastructure. It is a functional subsystem of the agricultural market, its functional component and reflects the features of implementation of exchange operations, trade in agricultural products and food. Along with the generation of market prices, it must also fulfill the technical and economic task of contributing to the so-called commodity promotion, that is, the movement of commodity masses from producer to consumer. The physical market infrastructure includes a system of enterprises of various organizational and legal forms, which act as an arena for the physical interaction of buyers and sellers, supply and demand. Depending on the specific characteristics of individual goods as objects of exchange, such elements of market infrastructure are used: commodity and futures exchanges, wholesale and food markets, fairs, auctions, city markets, shops, stalls, tents. The development of electronic commerce with the use of specialized information systems as elements of market infrastructure is becoming increasingly widespread.

Stimulating function means encouraging the production of goods that the consumer needs. Another form of its manifestation is the determination of the degree of social necessity and the significance of the goods produced.

Profit (absolute indicator) and profitability (relative indicator) can be an indicator of the completeness of the manifestation by the agricultural market of its stimulating function in relation to producers (market operators on the supply side).

An analysis of this information indicates a significant territorial diversity of profitability. Therefore, it is advisable to analyze the zonal features of the agricultural production profitability formation.

At the end of this part of the analysis, the “attitude” of the agricultural market to various products should be analyzed from the point of view of ensuring equal profitability. Such an analysis shows that in terms of the level of profitability, the stimulating function of the agricultural market in relation to various products is manifested selectively – crop production as a whole is more profitable than cattle breeding.

Selective function is performed through competition. It means that through the action of objective economic laws (supply and demand) with the help of competitive levers, the market selects efficient operators on the supply side. Only those who can offer the consumer a successful combination of price and quality will be able to withstand market competition.

Direct evidence of the effect of the selective function and material for analyzing the completeness of its manifestation could be information about the cessation of the activities of inefficient market operators, their bankruptcy and the transfer of property to efficient producers. However, the change of ownership of land and property is an extreme manifestation of competitive relations. It would be sufficient to transfer the defeated in the competition to the sphere of influence of effective management. It is almost impossible to find such data in official statistics.

Therefore, when analyzing the fulfillment by the agricultural market of its selective function, it is advisable to use indirect evidence of the market's attitude to economic units with a lower relatively average level of production efficiency. In particular, if the variation in performance indicators over time is growing, then this can be interpreted as an indifferent attitude of the agricultural market to the final consequences of managing, its low exactingness to high economic results of competing entities.

Coordination and management function means ensuring compliance with the help of purely market levers of the desired proportions in the volumes of production and marketing of agricultural products and food within the country's agro-industrial complex, taking into account foreign economic relations. The agricultural market does not fulfill this function in full and therefore is supplemented by state regulation.

Thus, the second stage of the analysis cannot be considered solely an analysis of the agricultural market functioning. Partially at this stage, the analysis of its formation in terms of the market infrastructure continues. Therefore, the characteristics of the analytical process content and sequence can be slightly changed as follows. The first stage is an analysis of the formation of the market process static components in the form of enterprises, institutions and special-purpose organizations (personification of food markets, integration of producers, market infrastructure, state

regulatory institutions), the second is an analysis of the static components functioning as the functioning of the agricultural market. This option implements more consistently the system organization scheme as a sequential construction of three models – taxonomic, structural and dynamic. The first includes a simple list of elements of the created system, its components, subsystems. The second involves the quantitative determination of the volumes and sizes of each element in the created system. The key role here belongs to the system-forming element, the dimensions of which determine the size of the subsystems. The third characterizes the system in action, in the process of functioning.

5 MODEL APPROACH

The theoretical aspects of the analytical estimates formation deserve special attention. Generalization, the results of analytical work should be formulated in the form of analytical estimates. A simple statement of any changes in the dynamics or structure of a process is not enough to substantiate management decisions; estimates are needed (Erdemoglu 2014). In turn, the analytical estimates should have a certain base, a comparison with which allows formulating an analytical conclusion. To analyze the activities at the national level – at the level of a particular country – three options of analytical estimates bases are used – plan (program), last year, neighboring comparable country. The nature of the bases at the national level can be transferred to the macroeconomic level with certain changes and refinements. So, the agricultural market of the European Union can be compared with the markets of other supranational entities. There are no fundamental obstacles to comparing partial or general results of the agricultural market functioning in the current year with similar results of the previous year, etc. However, in the macroeconomic analysis of the agricultural market, the most important is the first stage, that is, an analysis of its formation (in terms of a systematic approach – organization). An incompletely formed market will inevitably be imperfect in the process of functioning. However, to assess the progress of both the intermediate (partial) and final (generalizing, cumulative) results of the agricultural market functioning, appropriate bases of analytical estimates are needed. Dynamic (year after year) and territorial (country with a country) solve this problem only partially. Therefore, for a macroeconomic analysis of the European Union agricultural market formation, it is recommended to use specially developed analytical estimates databases in the form of reference models. The model, as you know, is a simplified copy of the original, which reproduces its most significant features.

The model approach has long been known in the world economic literature. Back in the middle of the last century, it could be read that the reason for the limitations of comparative analysis is the insufficient amount of data that would be the basis for comparison. This drawback can be partially solved by the so-called fictitious

economic systems, that is, production models (Altetmar 1969, p. 82-83). That is, the quoted work of the West German economist offers the model approach in the pure form for microeconomic analysis.

Models of individual subsystems of the agricultural market as a base of analytical estimates can rightly be called reference ones. For the analysis of market formation, these are static organizational reference models. For the initial stage of the analysis of the agricultural market formation, it is rightfully to limit ourselves to descriptive models, which will gradually turn into economic and mathematical models as the scientific foundations of this area of analysis deepen. The content of the description of static organizational reference models should be, firstly, a statement of the need for a specific subsystem of the agricultural market and, secondly, a description of the purpose (role). The description of the functional reference models that will be used in the analysis of the market functioning should include the name of the functions and a list of social and economic problems or tasks to which it is directed.

Not that in this version of their presentation there is a discrepancy between individual positions with generally accepted ideas regarding the agricultural market. This applies to the subsystems of personification of food markets, market infrastructure, bipolarization of the agricultural market and its selective and coordination and management functions.

Therefore, we consider it necessary to give some reasoning in defense of our recommendations. Neither in legislation, nor in economic practice, the issue of food markets personification has been developed sufficiently. At the same time, the experience of many developed countries shows the feasibility of such steps, since this creates the prerequisites for creating a lever to counteract the market element – centralized management of strategically important markets or even product sub-complexes (Larina 2018). It becomes possible to ensure the use of positive constructive motivational properties of the market with the organizing potential of centralized management. It would be short-sighted to ignore the advantages of such a path for the European Union as a whole.

In the literature, there is often too broad interpretation of the content of market infrastructure up to identifying it with the infrastructure of the entire national or supranational economy: communication lines, transport, communications, etc (Hartwig 2015). For sure, the agricultural market is within the scope of the overall infrastructure of the economy. However, the purpose of highlighting precisely the “agricultural market infrastructure” allows focusing on the main driving levers of the market organization of social production – market prices. Therefore, even if the author’s understanding of market infrastructure does not coincide with the generally accepted one, the authors consider it appropriate to distinguish this subsystem as part of the agricultural market. Also, the idea of the agricultural market bipolarization and

the feasibility of vertical integration as a means of realizing the bipolar construction of a market environment did not receive universal recognition. The authors consider this idea to be consistent with international experience and therefore productive, and the distinguishing of a separate subsystem to be justified.

Regarding the functions of the agricultural market, selective one deserves more attention. Very this function embodies the mechanisms of self-development and self-improvement of production using the fundamental idea of a market economy – the idea of competition. In truth, classical understanding of the competitive recovery goal – the transfer of property to an effective owner – needs to be clarified a little. Change of ownership is an extreme manifestation of the consequences of victory in competition, which should have the nature of exclusion. The rule should be a change in manager and management, expansion of the scope of competitive management as one of the steps in the direction of a change of ownership. Therefore, the authors do not consider the absence of the concept of “selective function of the market” in many textbooks on economic theory, a good reason to exclude it from the functions of the agricultural market.

Regarding the coordination and management function, it is inherent only in the modern market, in which, along with competition, co-operation of competitors also coexists. However, literature on market theory still interprets it from the perspective of atomized producers and the impossibility of their interests coincidence, perpetuates the abstract tenets of the “free market”.

6 CONCLUSIONS

Theoretically, the constituent parts of the agricultural market of the European Union, and at the same time its subsystems and objects of analysis, should be: effective demand (system-forming element), food markets (sectors), channels and prices of wholesale and retail sales of agricultural products and food, presence or absence of integration of market operators on the supply side, institutions, methods and extent of state regulation of market processes. The first stage of macroeconomic analysis of the agricultural market is the analysis of the formation of static components of the market process in the form of enterprises, institutions and special-purpose organizations (personification of food markets, integration of producers, market infrastructure, government regulatory institutions), the second is the analysis of the functioning of static components as the functioning of the agricultural market. This option more consistently implements the system organization scheme as a sequential construction of three models - taxonomic, structural and dynamic. The first includes a simple list of elements of the created system, its components, subsystems. The second involves the quantitative determination of the volumes and sizes of each element in the created system. The key role here belongs to the system-forming element, the dimensions of

which determine the size of the subsystems. The third characterizes the system in action, in the process of functioning.

If analyzing the attitude of the agricultural market subsystem to the performance of its functions, we find that the decisive role in the fulfillment of the social function belongs to effective demand, significant – to bipolarization of the market, partial – to state regulation, and market infrastructure under certain conditions can prevent the market from fulfilling its social purpose. In identifying market prices, market infrastructure is crucial, government regulation is significant, and personification of food markets and bipolarization of the market counteract this. The manifestation of the stimulating function is ensured by effective demand, market infrastructure and state regulation, partially bipolarization of markets with an indifferent attitude of personification to this function. The selective function is ensured by the market infrastructure while counteracting state regulation and bipolarization of markets. The coordination and management function is carried out by personification of food markets, their bipolarization and state regulation while counteracting market infrastructure as a potential carrier of the threat of ups and downs, “peaks” and “failures” in market prices.

Thus, the macroeconomic analysis of the agricultural market of the European Union is recommended to be carried out using the systematic methodology. It is implemented by various methods of qualitative and quantitative analysis of individual parties and characteristics of the agricultural market, the methods of use of which are summarized in this article.

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