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## FOOD SECURITY AND IMPORT SUBSTITUTION: MAJOR STRATEGIC OBJECTIVES OF CONTEMPORARY AGRICULTURAL POLICY<sup>1</sup>

*Rural areas and the agricultural sector are currently experiencing a radically new social and economic situation which barely fits the existing national agricultural policy as a long-term instrument for stimulating the agri-food market and government's support of the agrarian sector and, primarily, agriculture that underlies it.*

*In the age of globalization of national agri-food markets, food supply security based on import substitution can be ensured in a macro-economic environment that favors the development of a competitive agricultural industry. The main factor preventing the industry from developing is the unequal inter-industrial exchange biased against the rural economy. The article proposes the author's simple tried and tested schema for evaluating how inter-industry pricing relationships and governmental financial support (in the form of subsidies) to agricultural organizations affect their margins. The evaluation leads to the following conclusions:*

*— Given its real contribution to the national economy, the agro-industry is self-sufficient for its own development, i.e. the state objectively has the potential to increase its expenses on the elimination of the negative consequences from an unequal inter-industry exchange;*

*— Federal expenditures on such state support must secure a margin for agricultural goods producers that enables stimuli for workers' efficiency and an affordable credit system for the technical and technological upgrade of the facilities required for the production of competitive goods;*

*— The issues of competitive growth of agricultural products require solutions primarily on a federal scale.*

*An essential factor of competitive growth of individual types of national food and agricultural raw materials should involve science proven EEU agricultural treaties. The article discusses the major priorities in developing a common agricultural policy in the new integration institution.*

**Keywords:** agricultural policy, price disparities, Eurasian Economic Union, import substitution, competitiveness and competitive advantages, food supply security and independence

### Introduction

The current economic situation in the agricultural sphere can be explained as a negative result of the policy carried out during the regulation of a macro-economic policy. Any Russian policy in general, and agricultural policy in particular being part of the government's general socio-economic policy is valid during a limited period where its main provisions are objective, fair, practicable, efficient or, vice versa, inefficient. There has been a lot of research on certain issues of the current national agricultural policy, however, due to a number of reasons, they do not give sufficient coverage of the objective character of agricultural development, radical changes in the countryside, economic relations between city and countryside, the government's role in supporting agro-industrial sectors, the regulation of agri-food market and its individual food segments. Neither existing legislation, federal, departmental, industrial, interregional and regional programs of development of agriculture and regulation of agricultural produce, raw materials and food market [1], nor innovation investment projects contain or

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reveal the positive and negative processes going on in the agricultural sector and national food supply system.

That is why the executive and legislative authorities have been receiving comments on agricultural performance [2, 3].

These are the factors that account for the radically new social and economic environment that affects countryside and agriculture and barely fits the existing national agricultural policy as a long-term instrument for stimulating the agri-food market and government's support to the agricultural sector and, primarily, the rural economy that underlies it.

#### Research Methods

Food sovereignty is getting increasingly challenging and cost-intensive for the agricultural sector due to a number of new divergent factors of internal and external nature. The major factors are:

- Russia's simultaneous membership in WTO and a number of regional integration associations within the CIS resulting in a more accessible national agricultural market;
- Transformation of the Customs Union into Eurasian Economic Association EEU in strained opposition between Russia and the West, the aggressive reaction of the West to the Russian food embargo on buying imported goods;
- Continuing complications in the domestic macro-economy aggravated by increased political tension in the world, global food crisis, and regional military conflicts;
- The devaluation of the rouble mainly due to lower hydrocarbon prices etc.

Analysis of the original causes of the systemic agricultural crisis which resulted in low margins for agricultural goods producers and even losses points out that first of all the inter-industrial exchange is biased against the agroindustry. Consequently, the industry fails to ensure decent salaries; neither can it provide an environment for a viable agriculture credit system. In the first case, areas with less favorable climate experienced a considerable outflow of rural workforce. In the second case, low income and difficulties in raising credits for upgrade and innovation make it impossible to produce competitive goods.

Despite the annual increase, government's subsidies for the production of certain types of agricultural goods do not have any substantial positive effect on the sector. However, if we compare the amount of government support and the amounts withdrawn from the sector as a result of the unequal inter-industrial exchange, agriculture appears as a self-sufficient industry of the Russian economy. This can be verified by comparing the margins with and without subsidies.

Our formula below calculates the difference ( $D$ ) between these indicators in percentage points:

$$D = Ms - Mn,$$

where  $Ms$  is the subsidized margin, %; and  $Mn$  is the non-subsidized margin, %.

A diagram that shows the dynamics of both indicators will describe the existing inter-industrial price relations within a given period and government's adjustments.

The proposed evaluation scheme of the macro-economic processes under discussion can be applied to analyze similar situations in other subsidized industries, whose standing and development depend, as it were, on political will.

Government promises to ensure food sovereignty through import substitution with national competitive goods will require a relevant macro-economic environment.

### Research Results

Due to the price disparity against agriculture, expensive loans and energy supply with relatively low prices for agricultural goods, agricultural companies' margin is low or negative despite low salaries (Table).

The government has been increasing its financial support to agricultural producers over the recent years. However, the bulk of the manufacturers were not able to reach a financial level that would at least allow them to do their business out of own funds, at least on simple reproduction basis. Figure 1 provides visible evidence of that.

The analysis of existing trends of agricultural margins in Russia shown in the diagram with and without subsidies involves the values of 2005–2014. Based on this data and using the least square method we calculated the trends smoothing their statistical series. The trends in the diagram lead to the following conclusion that gives a direct or indirect description of the government's priorities in support of agriculture.

Margin of operating activities of Russian agricultural companies

Years	Overall margin, %		Prevalence of subsidized margin over non-subsidized margin, p.p. <sup>***</sup>
	subsidized	non-subsidized	
2005	2.1	7.8	5.7
2006	2.6	9.9	7.3
2007	7.9	16.7	8.8
2008	2.2	14.8	12.6
2009	-3.2	9.4	12.6
2010	-5.4	8.3	13.7
2011	-0.4	11.8*	12.2
2012	1.4	12.1*	10.7
2013	-5.2	7.3*	12.5
2014	6.4**	16.2**	9.8

Sources: Russian Ministry of Agriculture. Russian Agro-industrial Complex in 2008. Moscow, 2009. 553 p.; Russian Ministry of Agriculture. Russian Agro-industrial Complex in 2010. Moscow, 2011. 553 p.;

\* Serkov A. F. Agricultural Policy: Challenges and Perspective // The Economy of Agricultural and Processing Enterprises. 2014. No. 12. p. 3.

\*\* Russian agricultural organizations reaching positive margins in 2014 [online source] URL: <http://agrou.com>>Новости>2254914 htm (retrieved on May 14, 2015).

\*\*\* Authors' calculation.

1. Where subsidies are subtracted, we can observe a downward trend in agricultural margins. At the same time, low margin points at higher price disparity biased against agriculture.

2. The line that describes subsidized margin trends shows growth due to the annual increase in government's support to agricultural companies. The difference between the subsidized and non-subsidized margins has been increasing: from 5.7% in 2005 to 12.5% in 2013, and 9.8% in 2014.

3. Where subsidies are included, we can only observe a slightly upward trend in agricultural margins. In different years, it changed between 7.3 and 16.7%. Average annual subsidized margin accounted to 11.4%, which restricts the expansive reproduction of agricultural companies. Government's increasing financial support of the sector reflects that the agricultural policy was merely supportive rather than development-oriented over the analyzed period.

Despite a significant increase in annual sales revenues (in current prices), non-subsidized margins of agricultural companies' are decreasing. Additional cost due to annual revenue growth<sup>2</sup> does not keep up with simultaneous growth of production expenditures and payroll. The analysis of the subsidized and non-subsidized margins allows us to make an indirect assessment of the influence of government's current economic policy on the agricultural standing of the country and its regions.

There are no federal solutions to eliminate the effects of inter-industrial exchange biased against agriculture. I. Buzdalov writes: "Fiscal withdrawals from farmer-generated national income via transfer mechanisms in favor of the government and market agents of the monopolized environment of the industry partially return through the agricultural budget. At best, this only accounts for a fifth of the total amounts withdrawn... At least, RUB 1.2 trillion of the income generated by farmers is withdrawn from the industry" [4, p. 79].

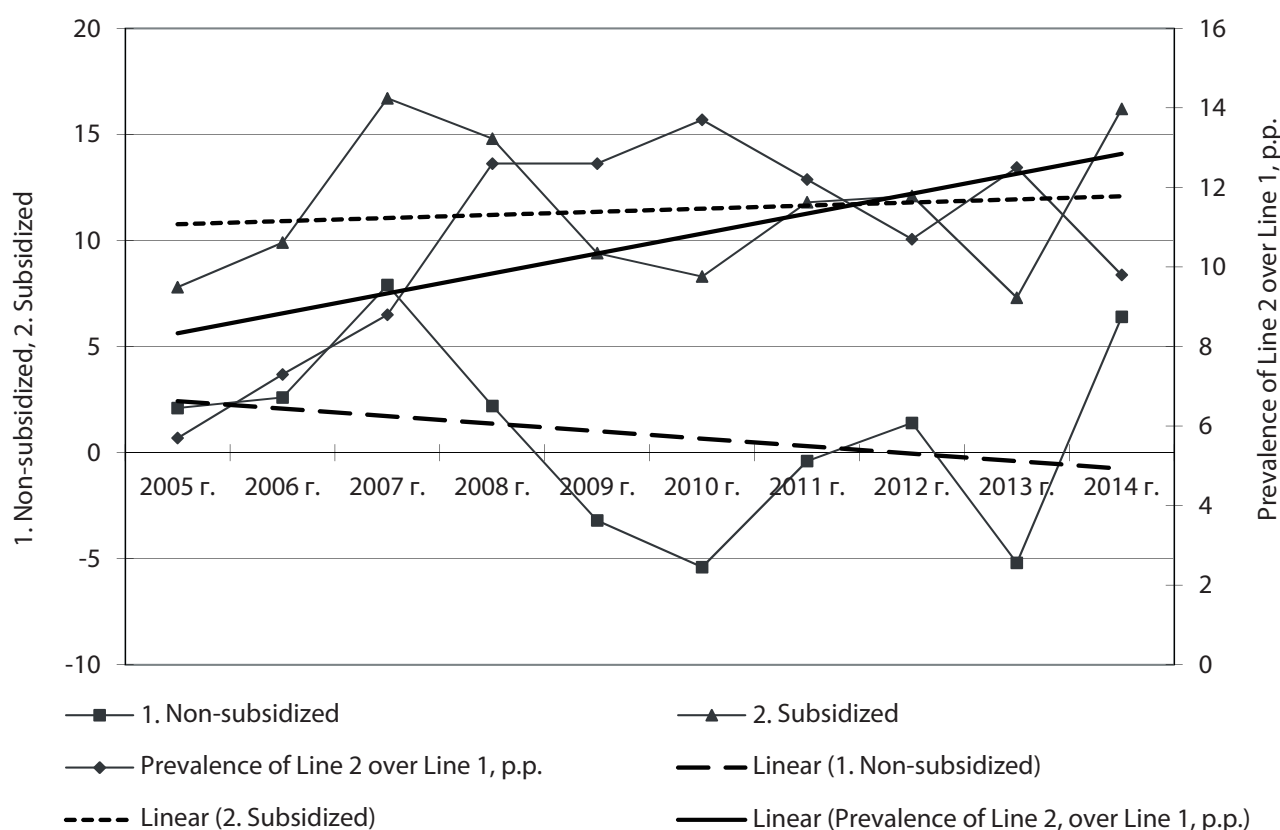
Opportunities and arguments for a significant increase of government financial support to the agricultural industry are supported by G. Bepakhotny [5], A. Serkov [6] and many other researchers.

The above-mentioned suggests that despite being technologically underdeveloped, agriculture remains a donor of the national economy like in the Soviet times.

The food sovereignty issue became even more strained after Russia imposed certain targeted economic measures for the purposes of national security<sup>3</sup>, when foreign sanctions affected ca. 15% of domestic consumption of food and agricultural raw materials for its production.

<sup>2</sup> Higher revenues from the sales of agricultural goods mainly due to higher current prices for these goods can be confirmed with the following example. Over the last 10 years, Sverdlovsk Region agricultural companies' "cost of gross output in comparable prices went up by 32%, and revenues increased almost 3.5 times" [7, p. 89].

<sup>3</sup> The Decree of the President of the Russian Federation No. 560 dated 6 August 2014.



**Fig. 1.** Subsidized and non-subsidized margin trends (across all agricultural activities in Russia)

Lack of food caused by the sanctions can only be promptly replenished in part. Even according to most optimist expert projections, it will only substitute 15% of the cancelled importation of food and agricultural raw materials, their prices showing parallel growth as before the embargo imposed by Russia most of food import was from the EU countries with relatively low logistical expenditures in the supply of agricultural goods, raw materials, and food to Russia.

As own food resource capacity building is relatively slow, new import sources had to be found urgently by mainly substituting EU supplies with supplies from other countries resulting in a new major redistribution of the large Russian imported food market. Additionally, accelerated import substitution by increasing national agricultural production is impossible without the parallel development of rural areas which still requires significant investment.

Successful import substitution, as opposed to redistribution of significant agricultural import flows, will take quite long. Import substitution will not even be able to react promptly to increased domestic demand for agricultural products, raw materials, and food due to other reasons as well, such as:

- High dependence of certain agricultural sectors on seed importation, genetic material, technologies, agricultural machinery, equipment, veterinary drugs whose domestic production cannot be set up in short time<sup>4</sup>;

- Independence of the cooperative movement that drives agricultural development, for example, in the European Union; persistent deficit of new agricultural machinery and equipment;

- Ongoing credit tightening and government's announcement of possible cancelation of food embargo (in a year) discourage potential investors from participating in the agricultural business.

The Russian government's accelerated import substitution policy will require five or more years for certain types of animal products and, more importantly, significant financial support. That is why, given the complicated economic position of the industry, even the amounts of state support approved by the Government of the Russian Federation can be decreased, so we need to define import substitution priorities, first of all taking into account social welfare needs.

This may include accelerated increase in dairy production despite the difficulties caused largely by the downward trend in cow population [9, p. 23].

<sup>4</sup> The existing situation "is a serious threat to national food sovereignty, this threat being not the obvious threat described in the National Food Sovereignty Doctrine but rather the inconspicuous one, which is more dangerous than excessive import of food to the national market" [8, p. 44].

Restoration and increasing of the milking herd require significant investment with long payback periods. However, despite government's limited capacity, the dairy sector should become a priority. In agriculture, this should be regarded as a factor that favors higher employment in rural areas not only in cattle breeding, but also in forage production, as well as higher performance of arable lands in terms of both enlarging cultivated areas and increasing its fertility by implementing rational crop rotation and using own organic fertilizers. At the same time, fresh dairy products (without any preservatives) are essential for people's healthy diets. Thus, increased dairy production brought closer to the consumers is an important element both in ensuring food supply security and import substitution.

Although the food embargo is an additional factor encouraging the development of national agriculture and larger supplies of food from the developing countries with settlements in national currency, the situation suggests that we should give priority to increasing production and expanding trade in agriculture products, raw materials, and food within the rising Eurasian Economic Union.

The Eurasian Economic Union operation results in a synergy that provides for a dynamic development of the EEU in general and each member in particular. That is why the EEU in its coherent agricultural policy intends to realize its members' aggregate potential which will result in a higher level of collective food supply security. The EEU's collective food supply security should be regarded as a complex issue that can only be resolved on the basis of a new R&D paradigm of the agricultural sphere involving new knowledge and innovation, improved economic organization both in an individual member state and in the EEU in general with an optimal balance of market self-regulation and government's influence on the processes of food production, exchange, distribution, and consumption.

The ongoing integration of the Eurasian Economic Union requires that part of the economic regulation functions should shift from the national authorities to an inter-government joint executive body. In this respect, there is a number of priorities of improving the EEU's common agricultural policy that will need a coordinated positions.

For example, the development of common agri-food market requires:

- A decrease in unjustifiable cross-country competition in individual segments of the agricultural market by way of developing a system of common indicative food balances and implementation of other organizational and economic mechanisms, with a unified data base and unified methods of developing such balances;

- The creation of a common commodity distribution system to promote agricultural products on domestic and foreign markets, with lower aggregate expenses by means of creating a Eurasian commodity distribution system.

EEU agricultural production requires:

- A unified scheme of areal and industrial labor division in agricultural production with maximum emphasis on natural and economic features, positive and negative factors that define common opportunities of agricultural development;

- Interstate economic mechanisms that will encourage agricultural production for the purposes of higher domestic consumption and export potential of agricultural products, raw materials, and food.

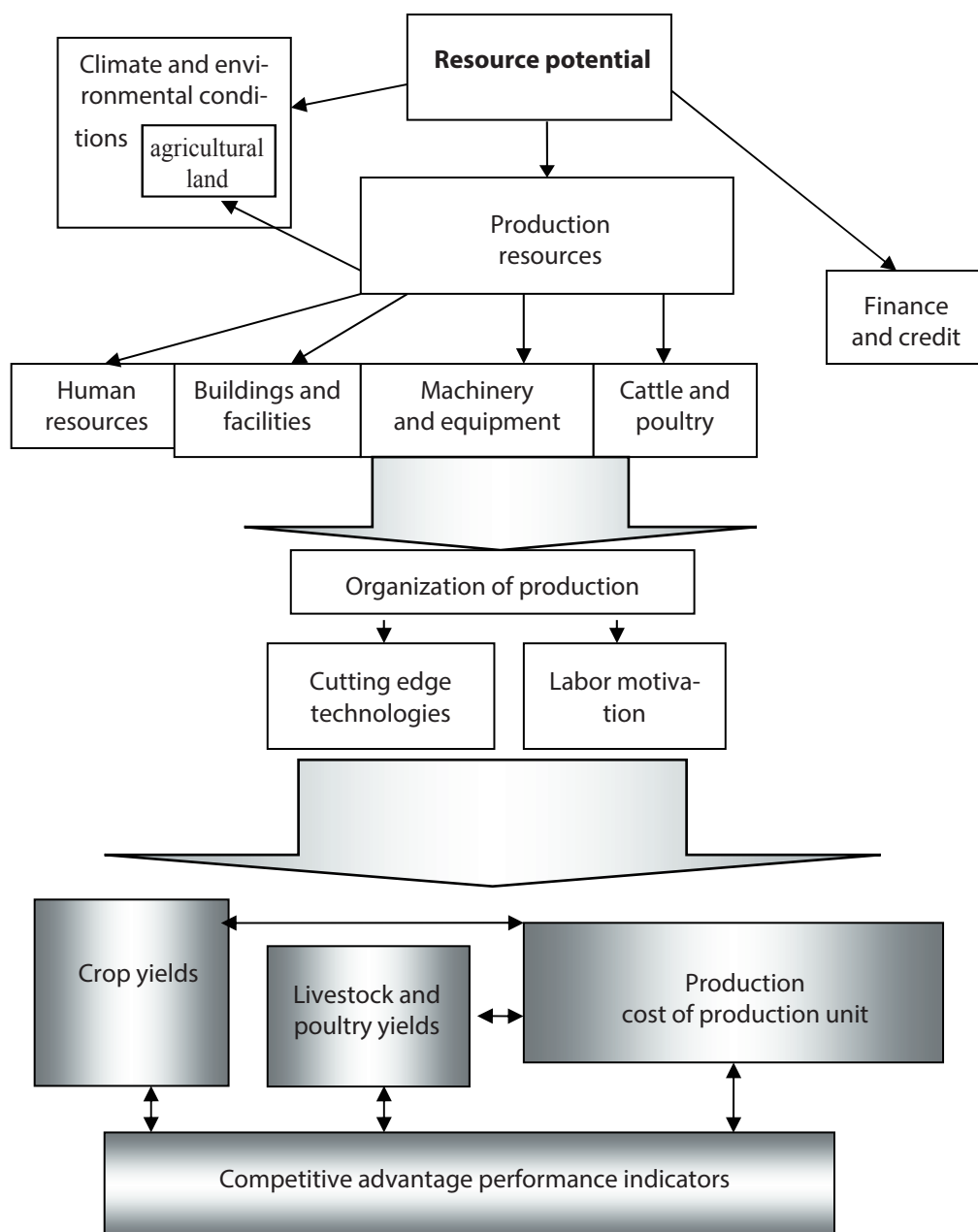
The legal regulation of agriculture requires that the Eurasian Economic Union finalize its status and acquire executive power and financial resources similar, for example, to those of the European Union. For this purpose, we need to define an integrative relationship model in the EEU agro-industrial complex. The existing agricultural policy provides for a coordinated but not a unified agricultural policy, which makes it different from that of the European Union with its unified economic rules for both internal purposes and relations with third countries. The provisions in an attachment to the Eurasian Economic Union Treaty related to governmental support to agriculture are practically the same as those applicable in the European Union. However, the Treaty does not provide for the European level of uniformity in EEU agricultural policy. That is why a number of priorities make it reasonable to gradually approach the EU model with the creation of a common agricultural support and sustainable rural development foundations.

R&D requires:

- To ensure and extend coordination and development of common research projects in the field of organizational and economics of agricultural production, common food supply security through closer interaction between R&D, business, and agriculture development institutions;

- To restore and extend the development of unified fundamental and prioritized applied research in the field of agricultural innovation;





**Fig. 2.** Resource potential factor system

— To create common R&D structures and organize inter-state information and marketing center for monitoring and projecting food supply security in the Eurasian Economic Union.

A major goal of the states integrating in the EEU stated in the Treaty is “comprehensive upgrade, cooperation and increase of competitiveness of national economies in the environment of a global economy”<sup>5</sup>, that is the need for economies’ higher competitiveness is additionally emphasized at the country level.

Foreign [10–14] and domestic publications of recent years provide an extensive coverage of competitiveness and competitive advantages of individual goods of companies, regions, and national economies. The publications put more emphasis on the concept of competitiveness and less on the concept of competitive advantages, though the use of the latter defines whether goods will be competitive.

As applied to agriculture, its industrial (regional level) and intra-industrial specific features (level of agricultural producers), competitive advantages should mean any properties of production systems that determine the competitiveness of the goods<sup>6</sup>. Competitive advantages are only potential

<sup>5</sup> European Economic Union Treaty dated 29 May 2014, Clause 4.

<sup>6</sup> The authors fully support M. Gelvanovsky [15, p. 9] in this respect.

opportunities for the production of competitive goods primarily related to the effective use of the resource potential (climate and environmental, technological, engineering, human, organizational and other production factors).

Agricultural producers should consider the opportunities provided by their resource potential as part of available and new competitive advantages in the production of various kinds of agricultural goods. Figure 2 provides a systemic view of the main components of such resource potential.

The diagram shows the resource factors used in production and affecting the competitiveness of goods, special attention should be paid to the labor motivation factor that depends on the payroll rate<sup>7</sup>.

Many agricultural organizations retain positive margins as long as they keep their salaries low. Low salaries reduce production cost and ensure a higher sales margin. Of course, this way of increasing competitiveness is only a coercive survival measure for a certain period of time. As a result, salary loses its stimulating role.

Higher or sufficient salaries motivate employees to use the main production resources in more efficient ways thus achieving lower cost of production in general.

The analysis of dependence of production and financial results on salaries shows:

- Salaries are higher in major agricultural organizations;
- The increase in salaries is also possible in major companies that have, as a rule, higher gross profits per employee;
- Companies with the highest salaries have a higher animal and crop yields, larger volumes of goods, and higher production margins.

This shows that salaries depending on production output can be regarded as an additional competitive advantage resulting from more efficient use of available production resources.

### Conclusion

The relatively low effective demand at the start of the reforms in the agri-food market, cost intensive agricultural production inherited from the Soviet era, open borders for the import of good and agricultural raw materials resulted in a sharp decrease in national agricultural production and related increase in food import. In the prevailing conditions, the food supply security issue was resolved by increasing food import rather than by developing competitive national agricultural production. This solution did not require any investment or highly qualified regulation of macro-economic processes, including the elimination of negative consequences of the increased disparity in inter-industrial exchange. As a result, a significant part of the rural population found themselves in harsh socio-economic conditions and the country lost its food sovereignty.

Globalized national economies require that the environment for competitive agricultural production should be primarily created by the governments by way of setting up relevant macro-economic conditions. The worse are the climate, environment, and engineering and technological production conditions in a country compared to leading exporters of food and agricultural raw materials, the more significant should be the government's support to agricultural producers, and the agribusiness crediting system should be more affordable.

In our opinion, the adjustment of macro-economic conditions in favor of an efficient agricultural policy should be based on the principle of equilibrium between the following elements of the agricultural system:

- The competitive balance between global and national prices for similar types of food products and agricultural raw materials;
- The level of equilibrium prices for the mass consumption of food regulated by effective demand associated with people's incomes;
- The amount of government subsidies to eliminate the negative effects of unequal inter-industrial exchange encouraging decent salaries and proper crediting of a technological upgrade in agriculture.

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<sup>7</sup> The effect of available and new competitive advantages on production performance is discussed in detail by I. Gimadi, V. Drokin, A. S. Zhuravlyov [16, p. 74-109].

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