Perspective directions of the agri-food market development in the system of bilateral foreign trade relations between Azerbaijan and the Stavropol Territory

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Abstract: The features of the development of foreign trade bilateral relations in the agri-food markets between the Stavropol Territory and Azerbaijan have been established. The tendencies in the export of agri-food products in the Stavropol Territory, taking into account the cereals export specialization of the region, as well as representation of new directions of the agro-industrial complex at the international, regional levels, have been settled. It is concluded that in the future, the wheat and meslin exports of the region to Azerbaijan is expected to increase. This output based on the extrapolation methods, compiled by the authors, and the SWOT-analysis of the agricultural raw materials exports of the Stavropol Territory. In combination with the identified opportunities and threats for agro-oriented enterprises, the potential market niches for the region have been identified.

Key words: Azerbaijan, the Stavropol Territory, agri-food markets, export, import, forecasting, foreign trade.

1. Introduction

Prospects of the dynamic development of trade and economic relations between the countries are associated with the growing need of entering in international agricultural markets and provide local population with food. This has a particular importance in the globalizing world and in the context of the developing economic crisis [1]. The reason for entering these markets arises from their certain specific, characteristic of countries and differences from other types of markets. It lies in the lack of flexibility in supply and demand, which is justified by the low price elasticity of agricultural products. Thus, there is a need to study the functioning and development of the agri-food market in the system of bilateral foreign trade relations [2]. The situation, characterized by the transformation of existing relations in the agri-food market or their insufficient development, requires long-term political and economic decisions, which should be based on a theoretical understanding of the real prospects of international economic commonwealth as well as the development of bilateral relations between its members.

Many Russian and foreign researchers (D. Ricardo, F. Liszt, B. Olin, S.Yu. Witte) are engaged in studying of agriculture state, foreign trade and bilateral relations in the field of agri-food products. Among Russian scientists, the works of A.V. Gyatova, S.A. Bogatskaya, Krylatykh E.N., Belova T.N. [3,4] and others. Their elaboration is based on the determination of commodity institutional export trends in the sphere of food products and agricultural raw materials in Russia and the search for arguments to prove the falsity of the modern model of the the agri-food market formation, which is based on the export of grain in
combination with the import of food. The paper by M. Svanidze and L. Getz emphasizes that peripheral regions of Russia are needed in correctly determination of the future role in ensuring global food security. Because they are characterized by differences between production and grain production potential [5]. Foreign scientists S. Sener and D. Delikan believe that bilateral relations are based on causal relationships between competitiveness, innovation and foreign trade [6].

Global processes have significantly influenced on the mutual growing influence and interdependence of national economies in the field of agri-food products. The basis of such a trend lays, first of all, in the dependence on natural conditions and the irregularity production, and the second, in the predominance of commercial agriculture over consumer one. An important factor is the distribution of scientific and technical potential (mechanization, the use of biotechnology, the modern breeding methods), as well as the benefits and advantages of the international labor division. At the same time, special attention should be paid to such a phenomenon as the regional component of foreign economic activity, because in today's world, all Russian regions have direct access to foreign markets and the opportunity to develop foreign trade in the agricultural area. This is typical for such a region as the Stavropol Territory, whose economy has an agricultural focus [7]. The region is in first place in Russia in the crop production, among the first in the harvest of wheat, barley, corn, sorghum, millet, beets, rapeseed, camelina seeds, vegetables, in third place in the number of sheep, goats and in the production of lamb and goat meat. The agro-industrial complex of Azerbaijan has a slightly different specialization and is aimed at such sectors as viticulture, horticulture, tobacco growing, early vegetable growing, silkworm breeding, as well as processing industries. Thus, the relevance of the bilateral foreign trade relations development of in agri-food products for the Stavropol Territory follows from the asymmetry of the agro-industrial complex and determines the significance of this study.

2. Methods
The issues of theoretical and methodological aspects of the bilateral foreign trade relations development between the Stavropol Territory and Azerbaijan in the agro-food markets have not been fully worked out today, however, it is a part of general theoretical and methodological foreign trade basis.

In this study it was used a complex of analytical and descriptive methods to identify, formalize and quantify the existing economic, organizational and institutional bilateral relations between the Stavropol Territory and Azerbaijan [7].

3. Results
The agri-food markets in Russia and in the world are strategic sectors of the economy that provide their own citizens with the necessary products of the food and processing industry, regardless of imports.

The absence of certain products prompts the regions to enter into foreign markets and new negotiations, to establish multilateral and bilateral relations. Foreign economic relations between the Stavropol Territory and Azerbaijan are interesting for research, because export-import supplies have been established since the 1980s, and agricultural products are the exchange basis between the countries.

The export of agricultural products is carried out by all Russian regions, but their geographical focus has its own characteristics. Azerbaijan has an agricultural potential that differs from the specialization of certain Russian regions.

Considering the situation with the export of crop products to Azerbaijan among the Russian federal districts in 2019, the North Caucasian Federal District should be distinguished, its share is 40% (Figure 1) [8]. The main region to dispatch these products in the North Caucasus Federal District is the Stavropol Territory (111 million dollars). Moscow ranks second position ($ 37.3 million). The most important crop production of these regions is the export of wheat and meslin, corn, as well as seeds and medicinal plants [9]. In terms of the export of processed products, the first positions are taken by Moscow and the Moscow
region and the Krasnodar Territory. The Stavropol Territory ranks the 5th place in this group of agri-food products.

The total agri-food products export of the Stavropol Territory in 2019 amounted to 181 million dollars and increased by 48% compared to 2016. The increase of the exports value in 2019 compared to previous years was entirely due to the growth of average prices on exported goods and the implementation of the federal project "The export of agricultural products" [10].

The share of cereals in the total structure of crop products exports to Azerbaijan in 2019 amounted to 59% or 106.7 million dollars. The content of exports of this commodity group is mainly provided by the sale of wheat and meslin, corn (Table 1).

In second place, in terms of the amount of proceeds, can be noted export operations in food waste sales and processing industries, which is due to a significant increase of export volumes to 5.8 million dollars.

Table 1. The dynamics of the main food products export of the Stavropol Territory to Azerbaijan, million dollars [8].

| Goods               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Changing, 2019 to 2014 (+, -) |
|---------------------|------|------|------|------|------|------|-------------------------------|
| Meat and meat products | 0,0  | 0,0  | 0,3  | 4,9  | 5    | 3,7  | 3,7                           |
| Wheat and meslin     | 170  | 138  | 89,2 | 82,9 | 42,2 | 100  | -70                           |
Having analyzed the largest group "Wheat and Meslin", it should be noted that in addition to the Stavropol Territory, which occupies a leading line in this export item, the TOP-5 includes Moscow, Saratov, Voronezh and Volgograd regions (Figure 2).

According to statistics, Russia exported wheat and meslin in 2019 to India ($ 1,376 million), Egypt ($ 1,273 million), Bangladesh ($ 525 million). Azerbaijan is the fourth largest country of these products import from Russia [8]. Having considered the indicators of Azerbaijan's imports in the whole world, Russia can be noted as the most advanced country in this type of product, which export is $ 278 million. Kazakhstan supplies wheat and meslin to Azerbaijan in the amount of $ 60.3 million (17.7%), the amount India, Georgia and Austria supplies is negligible and amounts only 0.3% [11].

In the current situation, due to the large volumes of supplies for the Stavropol Territory, mainly of raw materials with a low level of processing, it is necessary to increase export supplies of products with a high processing depth and added value, which are characterized by high quality requirements and strict contractual obligations [12].

The import of the studied group of goods from Azerbaijan by region has a traditional character. The Stavropol Territory, due to its agricultural specifics, is an importer only of processed products of vegetables, fruits and nuts, as well as a consumer of alcoholic and non-alcoholic beverages (Table 2).

**Figure 2. TOP-5 wheat and meslin exporters to Azerbaijan, million dollars**

| Stavropol Territory | Moscow | Saratov region | Voronezh region | Volgograd region |
|---------------------|--------|----------------|-----------------|-----------------|
| 100                 | 30,3   | 32,8           | 31,6            | 12,1            |

| Goods                                      | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|--------------------------------------------|------|------|------|------|------|------|
| Products of vegetables, fruits and nuts processing | 0,0  | 266  | 242  | 40,7 | 120  | 192  |
Alcoholic and non-alcoholic drinks

|        | 14300 | 9000 | 7200 | 9800 | 1500 | 5400 |

In the context of intensive integration into the world economy, competitive pressure on the country's agri-food markets and bilateral relations between Azerbaijan and the Stavropol Territory is increasing.

The SWOT analysis of the export of agri-food products (Table 3) made it possible to identify strategic directions that contribute to the long-term sustainable development of the region and increase its investment and innovation potential. The main problem of the region is the export focus on food products with low added value and the dependence of foreign trade on external factors such as sanctions and further decrease of trade turnover and export potential.

Table 3. SWOT-analysis of agricultural raw materials and food products export of the Stavropol Territory to Azerbaijan

| Strengths                                                                 | Weaknesses                                                                 |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 1. Favorable geostrategic position.                                       | 1. The lack of marketing policy and market analysis.                      |
| 2. Developed rich agricultural resources.                                | 2. The lack of the regional food program of all types of agricultural activities development. |
| 3. System of twin cities between the region and cities of Azerbaijan.    | 3. Outdated equipment in large processing enterprises, high prime cost of the final product. |
| 4. Active work of the Chamber of Commerce and Industry (CCI) of the region, an established system of relations with the CCI of the Russian Federation and similar foreign organizations. | 4. Low labor productivity and, as a result, low added value. |
| 5. Favorable external image of the region.                               | 5. Lack of a policy of creating the Stavropol Territory Brand of goods abroad. |
| 6. The willingness of the region's leadership to develop the international and foreign economic sphere. | 6. Minor processing of agricultural products and raw materials sales outside the region. |
|                                                                         | 7. Low activity in sphere of investments attraction.                      |
|                                                                         | 8. A small percentage of innovative and advanced technology enterprises.  |

| Opportunities                                                                 | Threats                                                                                       |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| . Low cost expansion of regional producers to foreign markets and new export-oriented processing industries placement in the Stavropol Territory. | 1. A long-term slowdown the global economy growth rates with continued instability and risks because of reduced demand. |
| 2. Growth in food consumption in Azerbaijan.                                | 2. Increased competition in the food and processing industries, increased protectionism between countries. |
| 3. Socio-economic policy of the federal center, including the policy of agricultural export developing. | 3. A significant amount of bureaucratic procedures, a complex system of export activities regulation. |
| 4. Creation of the Brand of goods of the Stavropol Territory, as a standard of quality and environmental friendliness. | 4. Possible unfavorable conjuncture change in the world prices for products. |
|                                                                         | 5. Imperfection of the tax system in relation to export supplies, including the non-working regime of processing in the customs territory. |
Forecasting the export flows of some raw materials in the region was carried out in the study by the authors in order to determine the possible volumes of transactions, as well as to assess their economic consequences (Table 4).

Table 4. Trend models used to forecast major commodity exports groups

| Indicator                              | Trend equation              | Determination coefficient |
|----------------------------------------|-----------------------------|---------------------------|
| Wheat and meslin                       | \( Y = 8.5964x^2 - 78.566x + 248.32 \) | 0.867                     |
| Corn                                   | \( Y = 1.0893x^2 - 11.988x + 39.72 \) | 0.895                     |
| Products from cereals and flour        | \( Y = -0.125x^2 + 0.80367x + 1 \) | 0.221                     |
| Alcoholic and non-alcoholic drinks     | \( Y = 0.40461x^2 - 0.5527x + 3.04 \) | 0.612                     |
| Waste from the food industry and       | \( Y = 0.3571x^2 - 2.0429x + 4.6 \) | 0.748                     |

The determination coefficients of studied time series range from 0.612 to 0.895, which indicates their close relationship and relatively accurate result.

Analysis of the forecast results of exports to Azerbaijan by commodity groups, the coefficients of determination of which are higher than 0.748, shows that in the coming years they can be expected to increase significantly (Table 5).

Table 5. Medium-term forecast of exported products to Azerbaijan

| From the Stavropol Territory, mln. doll. | Indicator                              | Forecast values | Rates of growth, 2022 to 2014, % |
|-----------------------------------------|----------------------------------------|----------------|---------------------------------|
|                                         | 2020 | 2021 | 2022 |                                |                                |
| Wheat and meslin                        | 120  | 170  | 238  | 168,0                            |                                |
| Corn                                    | 8.6  | 13.1 | 20   | 300,0                            |                                |
| Waste from the food industry and        | 7.8  | 11.1 | 15.1 | 124,0                            |                                |
| animal feed                             |                                |                |                                |                                |

Stable dynamic growth of exports to Azerbaijan will grow throughout the forecast period. Given the current trend in the recent years of economic sanctions, the increase in exported products will depend on Russia's foreign policy and the needs of people and goods in the country of production. However, it should be noted that this trend is unstable and requires additional analysis of new data, namely annual recalculation [13].

4. Conclusion

Thus, the study of the functioning of agri-food markets in the system of bilateral relations between Azerbaijan and the Stavropol Territory revealed a number of trends and development features.

1. The Stavropol Territory is the main Russia’s exporter of crop products to Azerbaijan ($111 million) and the region in the top three suppliers of food and processing products ($12.6 million).

2. The exported agri-food products from the Stavropol Territory represented by “a raw character” commodities: wheat, corn, barley, meslin, in terms of production of which the region has the first place in Russia.

3. In the dynamics of the agricultural products export in the region there is a tendency to growth, both in value and in terms of share in the total volume of exports.

4. The main group in the structure of exports of “the Cereals” commodity group in the Russian Federation and the Stavropol Territory in 2019 was wheat and meslin - $121 million (89.3%) and $100 million respectively (82.6% of these products total export in the Russian Federation).
5. The main importers of Azerbaijan from Russia are the Stavropol Territory, Moscow, Saratov and Voronezh regions, Altai and Krasnodar Territories, and the Republic of Dagestan.

6. Considering the indicators of imports of Azerbaijan as a whole in the world, it can be noted that Russia is the most advanced country in the commodity group "Wheat and Meslin", the import of which is $278 million or 82%. Kazakhstan supplies wheat and meslin to Azerbaijan in the amount for $60.3 million (17.7%), the amount of supplies from India, Georgia and Austria is negligible and amounts only 0.3% in total.

7. The SWOT-analysis of agricultural food exports proposed by the authors will allow the region to focus on strengths and weaknesses, as well as opportunities and threats.

8. The developed forecast values indicate increasing supply of wheat, corn and meslin to Azerbaijan.

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