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Statistical analysis of the commodity structure of exports
in the Russian regions

Abstract:
The article compares the regions of the country in terms of the commodity structure of exports. A representative sample consisted of 25 regions of the European part. The analysis is carried out using various statistical methods.

Keywords: commodity structure, export, import, export-import flows, statistical methods.

The relevance of the study of the commodity structure of exports is that the export-import flows of goods and services are one of the indicators of the level of development of countries and regions [1]. Each country (region) seeks to export as much as possible, and import – in the amount of export revenue [2. p. 249], which in Economics is determined by the function of export and import. Comparison of such functions among countries and regions allows to compare their levels of development.

The aim of the study is to compare the regions of the Russian Federation in terms of the commodity structure of exports through statistical analysis.

To conduct a statistical analysis of the commodity structure of exports in the regions of the Russian Federation, a set of 25 regions of the European part of the country was selected.
The analytical grouping on the group of commodity structure of export "metals and products from them" for 2016 [3] showed significant fluctuations in export volumes for different groups between the considered regions.

The first group included 3 regions with the lowest value of the volume of exports in the group "metals and products from them": Kaluga, Vologda, and Yaroslav regions. In the group with low reading was 5 regions: Voronezh, Pskov, Ivanovo, Kostroma, Bryansk region. 7 regions made a group with the average value of the indicator: Ryazan, Novgorod-sky, Orel, Astrakhan, Vladimir, Rostov and Tula regions. The value of exports in the group of metals and their products is higher than the average in 5 regions: Kaliningrad, Murmansk, Tver, Lipetsk, Belgorod regions. The high value of the sign in 4 regions: Smolensk, Volgograd, Tambov, Moscow region. The leader among the regions in 2016, with a large margin, was the Kursk region. However, it should be noted that the Kursk region is a leader among the 25 regions under consideration only in the group of exports of metals and products from them, and in the rest of the groups (food and agricultural raw materials, products of the fuel and energy complex, chemical industry, wood and pulp and paper products, machines, equipment and vehicles). the region is not only not included in the group of leaders, but has values below the average for the sample.

The analytical group as a whole, if we do not take into account the small uneven jumps between individual groups and indicators of the Kursk region, demonstrated the existence of a direct link between the groups of the commodity structure of exports.

Calculations of the Salai and Gatev indices, which are very close to zero, allowed to conclude that the structure of exports for the last 5 years, since 2012 [4], fluctuated slightly.

In order to support and further develop exports in the regions, it is necessary to develop exports of high-tech products [5]. Each region needs to create and develop the available exclusive technologies and products, to win niches of sales markets,
to significantly increase the volume of investments in the export of non-primary products [6, p. 120].

**Sources used:**


