The Methods for Determining the Level of the Import Influence on the Structure of the Foreign Trade Turnover in the North-Caucasian Regions

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Abstract
Objectives: This article substantiates the problem of development of the foreign trade turnover as the factor of an economic growth. The purpose of the study is to model an optimal structure of the foreign trade turnover. Methods: The authors applied a systematic approach, the methods of analysis and synthesis, the method of an economic modelling. Findings/Results: It was proposed to introduce the notion of “the price of import” into scientific discourse which jointly with the real price of imported goods comprises the realized price of these goods. The approach to modelling the situation in the region’s economy changing under the influence of changes in the structure of the gross domestic product was proposed. The uniqueness of the study is a proposal made for developing countries about a necessity of a differentiated approach to importing in its classic definition and entry of basic daily products. Significance: The “price of import” proposed for introduction into scientific discourse allows the cost of the import, if it is reasonable in the existing economic situation or it is better to use these funds for organization of production. The model of valuation of the gross domestic product being influenced by the import and export allows evaluating the situation in the foreign trade turnover of the region.

Keywords: Export, Foreign Economic Activity, Foreign Trade Turnover, Import, The Price of Import

1. Introduction

Foreign economic activity is the direction of the economic development of the country. Formation of an optimal structure of the targeted region’s foreign trade turnover must become the country’s regulating activity in this field.

The North-Caucasian economy taken as a study subject in this article is a developing one. The effect of import on the economy of these regions becomes the crucial factor of its development. Thus their foreign economic activity requires the government regulation. The share of import in the foreign economic turnover almost in all the regions is at the level of 70% and higher. Imported goods are generally intended for the population (clothes, foot-wear, home appliances, sanitary wear and even food products) saying nothing of importing high-tech products.

Besides, there are problems connected with arrangement of the foreign economic activity, for example: many of the territorial advantages cannot be realized by the centre because they are concrete and contradictory. The regions, potentially, have more opportunities for it. That is why it is necessary to expand development of the regions in organization the foreign economic activity. The involvement of the Russian regions in foreign economic relations depends on their geographical position and nearness to the transport arteries, the state of their natural resources potential, historical development of economy and many other factors. Similar situation with the foreign economic activity takes place in other regions...

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of the country, in particular, in Sverdlovsk region which imports goods from EU and NAFTA with high added value, and exports goods as raw commodities⁵. Such situation in the foreign trade turnover is characteristic in the economically developing countries⁶. Low participation of the North-Caucasian regions in the external economic activity is caused by the state of the economic development, especially of industrial production, and by deficient production of competitive goods⁴. This situation needs to be revised and changed as the region has got all the necessary prerequisites for it.

Arrangement of manufacturing of products for personal needs is possible as the North Caucasus is known as a temperate climate region which allows all the agricultural sectors to develop providing opportunities to transport goods in all directions of the world and develop trade with the whole world. At this time the foreign trade of the regions has become one of the most important elements of their economic development. Therefore, the North-Caucasian regional state bodies should carry out external economic policy considering this factor⁶.

It should be said that although the Russian Federation is an export-oriented country, the North-Caucasian regions being its constituents are import-oriented, and the funds obtained from exporting hydrocarbons are not channeled to these regions for increasing export capabilities⁵. Use of the location benefits and existing prerequisites will create opportunities for attaining a favorable balance between import and export that is necessary for an economic growth of the North-Caucasian regions.

2. Methods

2.1 The Method of Import Assessment

To evaluate the foreign economic activity of the region it is necessary to calculate the costs of a product imported. For this purpose, it proposes to study the whole process the assumed product passes from a manufacturer to a consumer. If to analyze this process step by step, we will get the following mechanism: 1) A product manufactured abroad, is purchased at the price that includes all costs of a foreign manufacturer, its profit, taxes paid by this manufacturer to the budget of its own state and possibly any taxes paid by a buyer to the budget of this state. 2) When transporting this product across the border, the customs charges of the foreign country of export must be paid as well as the Russian customs charges when the foreign product is imported to the Russian territory. 3) This product is sold to a domestic buyer at the price which includes all the costs and payments mentioned in the clauses 1 and 2 plus a trade margin of the seller of the imported product itself and the value added tax on this margin.

Schematically this process of importing a product is as follows:

1) Payment for the imported product (the product's price) 2) Customs duties and levies of the exporting country; 3) Customs duties and levies of the importing country; 4) Value added tax of the importing country; 5) A trade margin of the seller of the imported product.

Conditionally if to assign an approximate value to each of these positions, we will get the following: 1) The manufacturer’s price of the product - 300 units; 2) Customs charges of the product exporter - 60 = 300x20%; 3) Customs charges of the product importer - 72 = (300 + 60) х20% 4) A trade margin - 86,4 = (360 + 72) х20% 5) VAT - 15,5 = 86,4х18%; 6) Selling price of the product - 533,9 = (432 + 86,4 + 15,5).

A final selling price of the imported product is equal to 533,9 units. Comparing the selling price of this product - 533,9 units and the price of its purchase within the exporting country, in other words and its real cost - 300 units, we will get a difference in 233,9 units = (533,9 – 300). Thus when purchasing an imported product a domestic consumer will overpay 233,9 units.

The amount of an overpayment consists of the following:
- Customs charges of both states;
- A trade margin plus value added tax.

Suppose that if a final price of the imported product equal to 533,9 units corresponds to 100%, then a real price of the product of 300 units will correspond to 56%. Subsequently, the amount equal to 233,9 units to be paid extra for purchasing this imported product (the price of import) will correspond to 44%. As a result we will get the following equation (56% + 44%)=100%. It is possible to apply this method to determine the correlation between the real price of the imported mass of commodities and the price of import of this mass of commodities in the region or a group of regions.

2.2 Application of the Import Assessment Method when Analyzing the Foreign Trade Turnover of the North-Caucasian Regions

For this purpose let us give the figures showing the state of the foreign turnover structure in the regions of the
North-Caucasian federal district. These figures are stated in the Table 1.

The import-export figures are given in the table for the period under study. The share of import in a total volume of the foreign trade turnover in all the regions is equal to 62.6%, accordingly, export is - 37.4%. The index of the import share by region ranges from 42% in Stavropol Krai to 97.3% in the Republic of Ingushetia. In Stavropol Krai and the Republic of North Ossetia-Alania this indicator is below 50%, accordingly, 42% and 46.3%. In the other republics of the North-Caucasus the import share in a total volume of the foreign trade turnover exceeds 80.7%. The information given in the Table 2 demonstrates that despite a comparatively small share of import in the foreign trade turnover of Stavropol Krai and the Republic of North Ossetia-Alania, this indicator plays a major role in the economy of the North-Caucasian regions.

The Figure 1 presents histograms demonstrating the state of the foreign trade turnover of the North-Caucasian regions of the Russian Federation. To apply the method of determining the correlation between a real price and the price of import, using the information of the table 1, let us give average values of the import for the studied period region-wise (see the table 2 below).

Let us apply a principal idea of the given hypotheti
cal example (related to determination of the correlation between a real price of the imported product and the price of its import) to the average level of import, for instance in Daghestan Republic. As a result we will find that the cost of the imported goods sold in the republic is equal to 120 mln. USD that is 100%, the real price of these goods is 56% amounting to 67.2 mln. USD and the amount corresponding to 44% subject to an extra payment in the course of importing the goods, is equal to 528 mln. USD, as the price of import. Actually the amount of 528 mln USD, is the deferred demand of the citizens and organizations who did not meet their needs in certain goods produced domestically due to their absence on the market.

Generally in the North-Caucasian federal district the amount of the imported goods for 2014 is equal to 385.4 mln USD. The correlation between a total selling cost of all the imported goods in the district and a total real cost of all these goods is accordingly 259 mln. USD and 126.4 mln USD. In this regard, we can say that it is possible to launch production of majority of goods imported today from the other countries with funds the amount of which is equal to the price of import of the goods, i.e 1264 mln USD. Besides, it is strategically important to launch production of competitive goods to be exported to the countries which are different by the level of development from those where traditionally regional products were exported to. Moreover, inclusion of the economically undeveloped North-Caucasian regions into a separate North-Caucasian federal district in 2010 has improved the indicators of the foreign trade turnover of the Southern federal district by 42% of which they formed part up to 2010. The histograms on the Figure 2 demonstrate the state of goods importing in the North-Caucasian regions.

Figure 1. The import-export correlation in the foreign trade turnover of the North-Caucasian regions in 2014. The source: drawn up by the author.

Figure 2. Demonstration of the state of import in the North-Caucasian regions in 2014. The source: drawn up by the author on the basis of the information in the table 2.

2.3 Effects of Import on the GRP Structure

The gross regional product is an indicator of the economic state. Thus the extent of the impact of import, inter alia,
on the state of this indicator has an essential importance for defining the nature of an economic development. The figures related to the gross regional product are given in the Table 3

Table 1. The structure of the foreign trade turnover in the North-Caucasian regions of the Russian Federation in 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>2014</th>
<th>Volume of the foreign trade turnover for the year in mio USD</th>
<th>The share of import in %</th>
<th>The share of export in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daghestan Republic</td>
<td>579</td>
<td>92,5</td>
<td>7,5</td>
<td></td>
</tr>
<tr>
<td>Chechen Republic</td>
<td>41,4</td>
<td>96,6</td>
<td>3,4</td>
<td></td>
</tr>
<tr>
<td>Kabardino-Balkar Republic</td>
<td>86</td>
<td>80,7</td>
<td>19,3</td>
<td></td>
</tr>
<tr>
<td>The Republic of Ingushetia</td>
<td>15,9</td>
<td>97,3</td>
<td>2,7</td>
<td></td>
</tr>
<tr>
<td>Karachai-Circassian Republic</td>
<td>453</td>
<td>85</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>The Republic of North Ossetia-Alania</td>
<td>97</td>
<td>46,3</td>
<td>53,6</td>
<td></td>
</tr>
<tr>
<td>Stavropol Krai</td>
<td>1720</td>
<td>42</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Total, all the regions</td>
<td>2992,3</td>
<td>62,6</td>
<td>37,4</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Import of goods to the North-Caucasian regions

An average level of import I 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Import in mio USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daghestan Republic</td>
<td>120</td>
</tr>
<tr>
<td>Chechen Republic</td>
<td>8</td>
</tr>
<tr>
<td>Kabardino-Balkar Republic</td>
<td>12</td>
</tr>
<tr>
<td>The Republic of Ingushetia</td>
<td>3,3</td>
</tr>
<tr>
<td>Karachai-Circassian Republic</td>
<td>86,5</td>
</tr>
<tr>
<td>The Republic of North Ossetia-Alania</td>
<td>9</td>
</tr>
<tr>
<td>Stavropol Krai</td>
<td>146,6</td>
</tr>
</tbody>
</table>

The gross regional product of the North-Caucasian federal district in 2014 amounts to 1523,8 billion rubles, that in dollar terms is equal to 24577,4 mln. USD. The cost of the imported goods in 2014 is equal to 385,4 mln. USD, that is 1,5 % of GRP. If the goods which do not meet the needs, are imported in the amount equal to 1,5% of the gross regional product, then organizations and individuals engaged in import of goods, should possess a total amount of funds which corresponds to 1,5% gross domestic product plus the amount of funds equal to the price of import. Output of the gross regional product in the North-Caucasian regions is demonstrated by the histograms in Figure 3.

Mark the categories of products composing the gross regional product:

R, C, D, where: R – prices of the imported goods, C – cost of the goods which do not meet the needs in the given society, D – price of import of goods, we can make up the structure of the price of the imported product in the formula as follows: \( R = C + D \).
3. Modelling of the State of Gross Regional Product Due to Changes in the Import of Goods and Services

Let us insert into the formula of the price structure of the imported product real amounts of the import of the North-Caucasian regions in total, stated in the section 2, and it will get the following structure of an aggregate price of the imported goods: 385,4 mln. USD = 259 mln. USD + 126,4 mln. USD.

Production of low-quality goods, therefore, causes:
1) Inefficient costs (C), that is 1,5% of the GDP cost according to the conditions of the given example, and this causes a product shortage which triggers their import;
2) Increase of the price of scarce goods at their importing to the country by (D). The amount of increase, basically, includes the costs made when the goods pass the customs border. If to set these costs at the level not higher than 1/3(C), we will receive ⅓ 1,5%.

The price of the product shortage equal to inefficient costs (C) and the price of import (D), on the one hand, are the amount equal to the cost of the imported product, and on the other hand, these are the funds accumulated in the region for the exchange process abroad. Moreover, it must not be overlooked that the monetary funds are a kind of the goods to be exchanged for another goods. In this case (R) – is the sum of money exported from the country to purchase goods in another country before they are exchanged for the goods. So, till the time the imported product is purchased and brought into the country, the funds assigned for its purchase are included in the gross domestic product as export. Then the price of gross regional product (A) will include the following costs: A = B + C + C' + (D = ⅓ C'). Herewith we proceed from the assumption that the price of the GRP is 100% of costs per region. After inserting our values to this equation, we receive: 98,5% + 1,5% + 1,5% + 0,5% = 102%. The result shows that the value of the GRP has increased by 2%, that is 245,7 mln USD in terms of value.

An increase of GRP takes place due to increase of inefficient costs per year in the production of GRP, and not due to production growth or increase of efficient costs. Therefore the monetary funds in the amount of 245,7 mln. USD is not secured by the cost of the goods manufactured within the country. They represent the factor of rise in consumer prices and enhancement of the inflationary processes in the economy.

On the basis that import of goods and services has a certain effect on the GRP, and accordingly on the economy, it can be ascertained that this effect can cause both negative and favorable results. Thus, applying the formula of the GRP structure (A = B + C + C' + (D = ⅓ C'), we get as a result (98,5% + 1,5% + 1,5% + 0,5% = 102%), where:
- 98,5% - efficient costs, made in the production of GRP;
- 1,5% - inefficient costs, made in the production of GRP;
- 1,5% - costs of purchase of quality products abroad;
- 0,5% - price of import of the product.

It means an increase of the GRP cost as a result of rise of inefficient costs, and namely at the expense of funds not secured by goods, that leads to deterioration of the economic situation. If the economic situation keeps deteriorating, the volume of efficient costs will decrease that will certainly cause the increase of inefficient costs in the economy. For example, if efficient costs are reduced by 1%, the following will happen: (98,5% -1%)+ (1,5% + 1% + (1,5% + 1)% + (0,5% + ⅓ (1,5% + 1))) = 97,5 + 2,5% + 2,5% + 1,3% = 103,8%

Accordingly, the reduction of efficient costs by 1% led to the increase of inefficient costs and expenditures for purchase of quality goods abroad, and the price of import. As a result, the GRP cost increased by 1,8%. In case efficient costs for the GRP production increase, for example by 1%, then inefficient costs will decrease and, accordingly the aggregate price of import of goods decreases. In this case the equation will be as follows: (98,5% +1%) + (1,5% - 1% + (1,5% - 1)% + (0,5% - ½ (1,5% + 1))) = 99,5 + 0,5% + 0,5% + 0,3% = 100,8%

In such case the GRP cost of the regions declines by 3% not as a result of the decline in import at all, but as a result of the improvement of the indicators of their own production. Thus, it is possible to model the economic situation changing due to changes in the GDP structure, for example, changes of the efficient costs (X).

1. When efficient costs decline:

| The Republic of Ingushetia | 52,4 |
| Kabardino-Balkar Republic | 123,5 |
| Karachai-Circassian Republic | 67,6 |
| The Republic of North Ossetia-Alania | 125,7 |
| Chechen Republic | 136,3 |
| Stavropol Krai | 535,0 |
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4. Discussion

The researchers undertaken shows that the economy in the North-Caucasian regions is under influence of the import of goods and services from the other countries. The share of export in the foreign economic turnover is insignificant in comparison with import. There are the regions, for example, the Republic of Ingushetia, where the ratio between import and export is, accordingly, 97.3% to 2.7%. The situation in many other regions is the same. A characteristic feature of development of the foreign economic activity in the regions is that the policy-making in the sphere of external economic relations is formed by the federal government and consequently the foreign economic activity is not a high priority issue in the economic policy of the regions. Such foreign economic situation in the North-Caucasian regions evidences that the foreign trade turnover has not become yet the factor of their economic growth.

However, nowadays, there is a tendency in growth of geopolitical role of the North-Caucasian regions of the Russian Federation. The reasons of such growth are the international transport lines connecting North and South, East and West. The foreign economic activity of the regions still remains ineffective due to lack of a unified mechanism of regulating foreign trade relations. The current situation of the foreign trade turnover in the North-Caucasian regions requires government regulation, as the firms engaged in the production of goods and services lack the appropriate material and technical facilities and the financial base to develop the production of competitive goods. For development of small- and medium-sized businesses in the North-Caucasian regions able to effectively develop foreign economic activity a number of factors is required. The researchers of this problem Carmen Díaz-Mora, David Córcoles, and Rosario Gandoy state the following factors: firm size, productivity, foreign ownership and qualified labour force.

According to the professors Majeed A Hussain and Afaf A. Saad export advancement is the key indicators of economic growth. Granger causality was applied to test the causal relationship between export and economic growth. The professors Ruba Abu Shihab, Thikraiat Soufan Shatha and Abdul-Khalique are convinced that there is evidence of a direct causality between export and economic growth in the countries with emerging economies. Globalization processes require an appropriate level of competitiveness of the Russian economy which is largely conditioned by heterogeneity of economic space and depends on internal and external factors of development of the regions. Unfortunately, currently the North-Caucasian regions have to import consumer goods, the share of which in the foreign trade turnover is bigger than that of industrial ones. In this connection there is a need: first of all, to analyze the existing resource potential of the regions to show potential investors the capacities and opportunities of the regions to develop production of high-tech goods; second of all it is required to set up a regional policy of an effective development of foreign trade relations, what we are missing today; and thirdly it should be noted that at the modern stage of a socio-economic development of the Russian Federation a balanced external economic policy needs to be implemented, in particular, a cost-effective Russian customs legislation should be formed.

The results of the research will help to solve a number of problems connected with the foreign trade turnover in the North-Caucasian regions. Theoretically, it is concluded that the import in these regions contributes to growth of the GRP through the funds not secured by goods being the factor of a stochastic inflation. The notion of “the price of import of the product” proposed by the authors to be introduced into scientific discourse is also theoretically valuable for developing the foreign trade relations, and it indicates the problems of the government regulation of the foreign trade turnover.

From a practical standpoint, the proposed the method of evaluation of an import constituent in the external economic activity will help to improve the situation. This method will allow to assess a contribution of each category of the costs constituting the price of the imported product and, generally, the aggregate price of
the imported goods in a more realistic manner. Besides, the proposed approach to modelling the state of gross regional production in connection with the changes in the import of goods and services is essential for development of the external economic activities of the region. The compiled models allow, the GRP cost structure has changed substantially due to any changes of the structure of the foreign trade turnover.

However, the percentage (1, 5%) of import set in the research compared with the GRP cost the North-Caucasian regions may not be factually accurate. And the current reality in the sphere of wholesale and retail trade and intermediary financial services in the regions under study is that this sphere makes no less than 30% in the GRP structure. In this connection, we are convinced that there is a necessity to study the problem of accounting the cost of goods and services imported to the regions as a part of the gross domestic product.

5. Conclusion

According to the research carried out, it was concluded that:

1. In the course of studying the foreign economic activity of the North-Caucasian regions of the federal district of the Russian Federation it was proved that inadmissible in terms of economic development imbalances in the structure of the foreign trade turnover almost in all the regions.

2. An uneven development of industrial infrastructure of the North-Caucasian regions was identified. It should be noted that in Stavropol Krai there are production facilities on the basis of the large production organisations. In the other regions there are no such facilities and that is the reason of their strong import dependence.

3. The notion - “price of import of the product” proposed to be introduced in the discourse is scientifically significant and comes as a result of studying the structure of the price of the imported product. The analysis of the price structure of the imported product allows which factors influence the increase (decrease) of each element of this price. It was determined that the costs directly related to the process of transportation of the product across the border indicated by us as “the price of import of the product” are of a particular importance in the structure of the price of the imported product.

4. The provision substantiated that the countries with emerging economies face the situation when the percent of inefficient costs has a big share is of a scientific and practical importance. As a rule, this situation is solved by importing goods and services. The author’s state that the funds for purchasing goods abroad should be more than twice the amount of the sum of the inefficient costs, i.e. the amount of the inefficient costs doubles as the society has already incurred these costs, and for importing it is necessary to have the same amount of money plus the price of import.

5. The method of assessment of the import constituent in the foreign economic activity and the modeling of the state of the gross regional product due to changes in importing of products and services have the methodological significance. The method of the import assessment allows calculating the amount of costs closer to reality taking into consideration changes in the external economic policy of the countries which have entered into the foreign economic relations.

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