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**THEORETICAL AND PRACTICAL APPROACHES
TO ASSESSING THE EFFICIENCY
OF FOREIGN TRADE NON-TARIFF MEASURES***N. Bukavnyova¹, V. Sazanets¹, O. Morozova¹*

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Abstract: Non-tariff measures play a significant role in regulating foreign economic activities. Non-tariff regulation performs the functions of protecting the domestic market, preventing the exhaustion of non-renewable natural resources and strategically important (sensitive) goods and raw materials used in domestic production, establishing import-substituting production, protecting citizens, animals, plants, the environment, morality, law and order and cultural property. The current practice of quantifying non-tariff measures includes methods for creating databases, calculating the coefficients for the frequency of non-tariff measures application and covering imports (exports) under non-tariff measures, goods price scanning on domestic and international markets and calculating the ad valorem coefficient of non-tariff measures. These methods make it possible to assess the prevalence of non-tariff measures, the frequency of their application, the effect on goods pricing but they are inappropriate to use to evaluate the effectiveness of non-tariff measures application in foreign trade. Testing the functional methodology for assessing the effectiveness of the application of non-tariff regulation measures in the Republic of Belarus as a part of the EAEU has shown that at present non-tariff regulation measures are an effective tool used to prevent a shortage of goods on the domestic market at the time of a coronavirus pandemic as well as ensuring food security, establishing import-substituting production and preventing the exhaustion of «sensitive» goods. Non-tariff measures have proved to be inefficient when they are used for economic support of domestic cement production and regulation of the level of competition in this industry.

Keywords: non-tariff regulation, non-tariff measures, Institute of Measures, foreign economic activities, efficiency assessment

**ТЕОРЕТИЧЕСКИЕ И ПРАКТИЧЕСКИЕ ПОДХОДЫ
К ОЦЕНКЕ ЭФФЕКТИВНОСТИ ПРИМЕНЕНИЯ НЕТАРИФНЫХ МЕР
РЕГУЛИРОВАНИЯ ВНЕШНЕЙ ТОРГОВЛИ***Н.И. Букавнёва¹, В.А. Созанец¹, О.В. Морозова¹*

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Аннотация: Нетарифные меры занимают важное место среди средств регулирования внешнеэкономической деятельности. Нетарифное регулирование выполняет функции защиты национального рынка, предотвращения истощения невозполнимых природных ресурсов и чувствительных товаров, экономической поддержки отечественных товаропроизводителей, налаживания импортозамещающего производства, защиты граждан, животных, растений, окружающей среды, морали, правопорядка, культурных ценностей. Современная практика количественной оценки нетарифных мер включает в себя методы создания баз данных, расчета коэффициентов частоты применения нетарифных мер и покрытия импорта (экспорта) нетарифными мерами, сравнения цен на товары внутри страны и на международном рынке, расчет адвалорного коэффициента нетарифных мер. Данные

методы позволяют оценить степень распространенности нетарифных мер, частоту их применения, воздействие на цену товара, однако их нецелесообразно использовать для оценки эффективности применения нетарифных мер во внешней торговле. Апробация функциональной методики оценки эффективности применения мер нетарифного регулирования в Республике Беларусь в составе ЕАЭС показала, что в настоящее время меры нетарифного регулирования оказались эффективны при их использовании в целях предотвращения дефицита товаров на внутреннем рынке во время пандемии коронавирусной инфекции, а также для обеспечения продовольственной безопасности, налаживания импортозамещающего производства и предотвращения истощения «чувствительных» товаров. Нетарифные меры регулирования оказались неэффективными при их использовании для экономической поддержки отечественного цементного производства и регулирования уровня конкуренции в данной отрасли.

Ключевые слова: нетарифное регулирование, нетарифные меры, институт мер, внешнеэкономическая деятельность, оценка эффективности

Introduction. The State along with exercising law enforcement and ensuring national security must perform specific functions in the sphere of protection and regulation of the economy, domestic and foreign trade of goods. The regulation of foreign economic activities provides for a wide range of diverse measures applied to import and export of goods. Conventionally these measures are divided into two independent groups: economic, which include tariff regulation and administrative, which include non-tariff regulation. In a broad sense non-tariff measures (hereinafter referred to as NTMs) include all measures except those related to the application of customs duties: measures of financial, technical, sanitary, phytosanitary, administrative, monetary and environmental regulation as well as measures applied to other areas of national policy.

The relevance of the research is determined by the fact that nowadays the trade, political and economic role of NTMs has significantly increased in view of the considerable expansion in international trade and changes in its commodity structure, the strengthening of the economic role of foreign trade in the national economy and above all a steady global downward trend in tariff protection for domestic markets resulting from the trade policies carried out by the World Trade Organization.

At the end of the last century and at the beginning of the 21st century, NTMs took the first place among the regulators of foreign trade. From 2008 to 2015, 1441 new non-tariff measures were registered in trade and only 354 measures were removed during the same period of time. The tendency of the increasing number of NTMs in the regulation of international trade has a long run. If technical 1995–2015 barriers to trade are considered 24,000 new measures of

technical regulation were registered during this period of time [1, p. 54]. According to international organizations (WTO, UNCTAD) data the technical barriers, sanitary and phytosanitary measures account for about half of all registered instruments of non-tariff regulation.

In general, non-tariff regulation is many times higher than tariff protection of domestic markets. Moreover, according to [2, p. 8] in developed countries NTMs are actively used in agricultural sector, in developing countries are to protect industrial sector and in least developed countries NTMs are used to protect the whole domestic market (Table 1).

According to the WTO Secretariat data for Trade Policy Measures from 2000 to 2017 [2, p. 9] the number of NTMs used by WTO members increased from 3200 to 12000 USD (Figure 1).

NTMs are used to ensure the national security by performing the following functions:

- 1) protecting the domestic market by restricting the export of goods that are scarce within the country;
- 2) restricting the import / export of goods to ensure the stability of the market of any product or establishing import-substituting production;
- 3) preventing exhaustion of non-renewable natural resources and strategically important (sensitive) goods and raw materials used in domestic production;
- 4) protecting and economically supporting domestic producers, regulating the level of competition in the domestic market;
- 5) regulating export or import of precious metals and stones;
- 6) protecting state security, life or health of citizens, property physical or legal entities, state or municipal property, environment, life or health of animals and plants, moral and legal order, cultural property.

Table 1

Comparison of the level of tariff and non-tariff measures regulating international trade, %

Countries	Products	Tariff measures	An equivalent level of NTMs
Developed Countries	All products	3,0	6,0
	Agricultural products	9,0	20,0
	Manufactured products	2,5	5,0
Developing Countries	All products	2,5	5,0
	Agricultural products	7,0	2,0
	Manufactured products	2,0	6,0
Least Developed Countries	All products	2,5	7,5
	Agricultural products	5,0	2,2
	Manufactured products	2,5	5,5

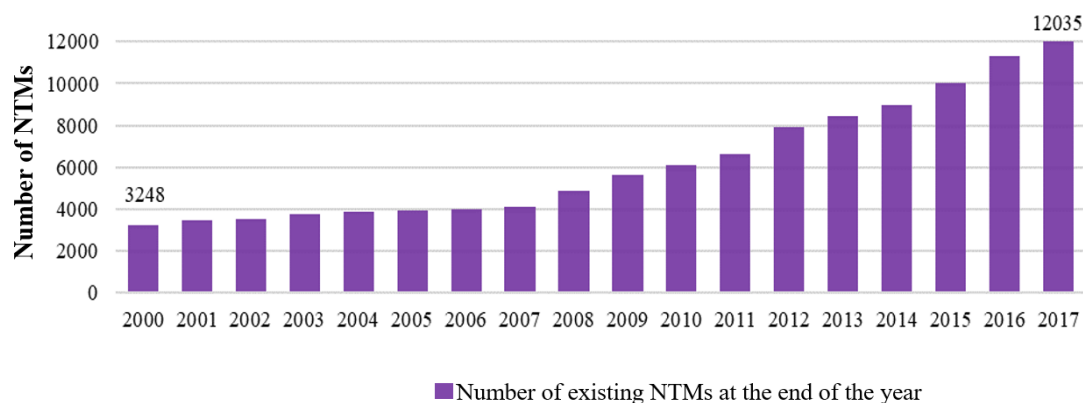


Figure 1. Dynamics of NTMs number used by the WTO members in 2000–2017, Measurement

Research Background. At present the weakening of tariff protection in foreign economic activities has caused a widespread of non-tariff regulatory measures. It, in turn, resulted in the problem of quantifying non-tariff measures at the current stage. This question has serious theoretical significance: the methods of quantitative assessment of non-tariff regulation measures allow bringing various data to a comparable form in numerical form due to which it becomes possible to make the most accurate assessment and predict the further development of the system of non-tariff regulation measures. The practical aspect of this issue is as important as the theoretical one because a qualitative and accurate quantitative assessment of the level of non-tariff protection of the country’s market is vital for the creation and operation of a system for the settlement of

international disputes of the WTO. Moreover long-term multilateral negotiations within the framework of the WTO Doha Round which serve as a platform for mutual reduction of trade barriers require accurate quantitative assessments and the opportunities for non-tariff regulation measures comparison.

As a rule some NTMs often work as an addition to the tariff and can be added to it to get an overall price effect. Most NTMs are discriminatory and have different effects on as between foreign trading partners. Quotas, minimum prices for imported goods, special, anti-dumping, countervailing duties, measures taken in accordance with the Agreement on international trade in textiles, voluntary export restrictions etc. can be an example of NTMs. There are differences in the impact of NTMs on different foreign suppliers. To

identify these effects, it is necessary to evaluate not only the import market of a particular country but also to focus on the global state of affairs.

Methodological Approaches to Quantifying the Effectiveness of Non-Tariff Regulation Measures. To quantify the effect of NTMs on international trade is a difficult task. It is carried out by various methods. One of the most common methods is to assess the so-called frequency of non-tariff measures applied to specific items in the commodity nomenclature of foreign economic activities (hereinafter referred to as CN FEA).

Estimates of the frequency method show the frequency of occurrence or presence of non-tariff barriers. These estimates may be unweighted or weighted in terms of imports or production volumes. Usage of the frequency method allows to conduct special studies what non-tariff measures are applied to this group of goods or to calculate the number of appeals from market participants to government authorities with complaints about non-tariff barriers.

One of the possible options for estimating the frequency method is presented in the work of S. Laird [3, p. 127]. It is based on calculating the «number of product groups in the nomenclature of non-tariff measures exposed to the total number of product groups» ratio. The frequency coefficient indicates the overall level of non-tariff measures use in a particular country. Such assessment is usually made by comparing the number of national commodity items for which non-tariff measures are used with the total number of commodity items of the national customs tariff:

$$F = \frac{\sum g}{\sum G} \cdot 100\% \quad (1.1)$$

where

- F – frequency coefficient, %;
- g – item commodity (commodity), to which NTMs are applied;
- G – all item commodities of CN FEA [4, p. 29].

This method gives the understanding of application degree of non-tariff measures in different countries. The frequency method doesn't provide with information about the

economic effect of non-tariff measures on prices, on the volume of imports of goods and their production. Thus, this indicator only determines the market share of the country protected by NTMs.

According to UNCTAD, from 1999 to 2010 the frequency of technical and price control measures increased while the frequency of quantitative control measures decreased. The reason for the reduction in the use of quantitative measures is that the use of such measures is illegal within the WTO framework.

J. Melo and A. Nishito in their work used another method of quantifying the measures of non-tariff regulation in the country – Import Coverage Index – which reflects the percentage of trade subject to NTMs and is determined by the following formula:

$$C = \left[\frac{\sum (D_i \cdot V_i)}{\sum V} \right] \cdot 100\% \quad (1.2)$$

where

- C – the percentage of trade subject to NTMs, %;
- I – item commodity (commodity);
- D – dummy variable, which is 1 if NTMs are applied to the product, and 0 if NTMs aren't applied;
- V – annual import value [5, p. 10].

Using these indices it is possible to confirm the shift in international trade as a result of the GATT/WTO policy of foreign trade liberalization based on the constant reduction of tariff protection and as a result the transition to non-tariff measures focused on the implementation of technical regulation since technical barriers are the most hidden and non-obvious mechanisms of non-tariff regulation. However, these indices don't allow to fully assessing the real level of protecting the domestic market by using non-tariff measures.

I. I. Dumoulin notes that the level or degree of protection of the national market can be judged by comparing the size of domestic prices for specific goods with prices on the world market [6, p. 17]. In this case it's necessary to calculate the price impact index which will make it possible to evaluate the effect of NTMs by the degree of its influence on the domestic price of goods compared to the world price. In this case the degree of excess of domestic

national prices over world prices allows to get a sense of the level or degree of protecting national market by using non-tariff protection.

If the customs duty is subtracted from the obtained, then the remaining indicator will show the protection degree of the national market provided by a non-tariff measure. Such price comparison can reveal the net effect of all applied non-tariff regulation measures available on the market without the need to identify each specific measure:

$$R = \frac{P_d}{P_w} \cdot 100\% \quad (1.3)$$

where

- R – price ratio, %;
- P_d – price of domestic goods to which NTMs are applied;
- P_w – world price of identical to domestic goods [4, p. 29].

Also I. I. Dumoulin in his work «Non-Tariff Measures in Modern International Trade: Some Issues of Theory, Practice and Rules of the WTO, the Interests of Russia» notes that the ultimate goal of quantitative assessment is to obtain tariff equivalents [6, p.16]. These equivalents are the total differences in regulatory systems expressed in a single «Tariff Equivalent».

The tariff (ad valorem) equivalent is the calculated customs duty rate equivalent in its prohibitive effect to the non-tariff measure:

$$[(P_d - P_c) / P_c] - \tau \cdot 100\% \quad (1.3)$$

where

- TE – tariff equivalent of non-tariff measures, %;
- P_d – price of domestic identical to export goods;
- P_c – Price CIP of export identical to domestic goods;
- τ – ad valorem rate of customs duty [4, p. 290].

This indicator allows to determine more accurately the protectionist level of NTMs and compare this level in different countries or for different groups of goods.

All the methods of quantitative assessment of non-tariff regulation measures mentioned above make it possible to judge the prevalence

of non-tariff measures, the coverage of the country's market (integration association) with such measures, and get information about their economic effect on the price of goods on the volume of imports of goods and their production. However, these methods don't allow an objective assessment of the effectiveness of particular measures of non-tariff regulation of foreign trade.

Non-Tariff Measures Application in the EAEU and the Republic of Belarus: Quantitative Assessment. To quantify the application of non-tariff regulatory measures in the Eurasian Economic Union in general and in the Republic of Belarus in particular, it is proposed to apply the frequency index of NTMs. In this case the basis for the calculations is the unified Commodity Nomenclature of Foreign Economic Activity of the EAEU. There are various methods for assessing the frequency of use of NTMs, but most often this index is calculated by correlating specific items of the nomenclature with the total number of commodity items of CN FEA.

In the case of calculating the index of the frequency of NTMs application in the EAEU, the lists of goods to which the unified non-tariff regulation measures in the EAEU are applied and which contain data on the name of the products to which the NTMs are applied as well as commodity items (in some cases subitems and sub-subitems) are specified have been studied. For the purpose of this study an item-level detail has been adopted.

An analysis carried out showed that the list of goods prohibited from being imported/exported to/from the customs territory of the EAEU includes about 206 commodity items. The list of goods that have a permissive procedure for import/export to/from the customs territory of the EAEU includes about 611 commodity items. The list of goods for which automatic licensing has been imposed has 3 commodity items. The list of goods for which a decision is made to establish a tariff quota includes 12 commodity items of the unified EAEU CN of FEA. These lists often duplicate commodity items, therefore, for an objective calculation of the frequency index it is necessary to highlight the unique commodity items to which NTMs are applied. Thus, the above lists contain information about 664

commodity items falling under the NTMs. In total the unified EAEU CN of FEA has 1221 commodity items. The frequency index of NTMs application in the EAEU can be calculated by Formula 1.1:

$$F = \frac{\sum g}{\sum G} \cdot 100\% = \frac{664}{1221} \cdot 100\% = 54,38\%$$

The index of the frequency of NTMs application can be calculated towards the Republic of Belarus too, since, in addition to the common measures of non-tariff regulation adopted by all the EAEU member states, Belarus has applied NTMs unilaterally. Thus, the Republic of Belarus has introduced non-tariff regulation in the form of authorization of export of crude oil and petroleum products from the country (3 commodity items), the importation of Portland cement commodity item 2523 and the exclusive right for importation alcoholic beverages (4 commodity items) and tobacco (3 commodity items) is applied. Due to the current epidemiological situation temporary bans have been introduced on the exportation of personal protective equipment and some food products (22 commodity items). Thus, in the Republic of Belarus NTMs are applied in 679 commodity items of CN FEA. The frequency index of NTMs application can be calculated as follows:

$$F = \frac{\sum g}{\sum G} \cdot 100\% = \frac{679}{1221} \cdot 100\% = 55,61\%$$

The frequency method gives an understanding of the degree and prevalence of non-tariff measures both in the EAEU and the Republic of Belarus. In this case it can be concluded that NTMs cover half of the entire market of the integration association and the republic. This index determines only the percentage of products for which non-tariff measures are applied and displays the market share of the country protected by NTMs. The frequency method doesn't allow obtaining information on the economic effect of NTMs on foreign trade in goods, production volumes as well as the application of such measures to ensure the economic security of the country.

Non-Tariff Regulation Effectiveness for Foreign Trade in the Republic of Belarus: Approbation of the Functional Evaluation

Method. To carry out a comprehensive evaluation of the effectiveness of non-tariff measures regulating foreign trade activities in the Republic of Belarus, it is necessary to analyze the implementation of the functions related to this sector of the regulation of state trading. They are as follows:

1) Protection of the domestic market by restricting the export of goods in short supply within the country.

2) Restrictions on export of goods in order to ensure the stability of the market for any product or to establish import-substituting production.

3) Prevention of exhaustion of non-renewable natural resources and strategically important goods in domestic production.

4) Protection and economic support of domestic producers, regulation of the level of competition in the domestic market.

5) Protection of state security, life or health of citizens, animals and plants, environment, moral, legal order, cultural values, regulation of export (import) of precious metals and stones.

For this study, the analysis in gradual steps studying and reviewing each of the above functions has been carried out.

In order to perform the function of protecting the national market by restricting or prohibiting the export of goods in short supply within the country on April 1, 2020 the Republic of Belarus introduced a temporary ban on the export of certain food commodities. This measure was adopted in accordance with the adoption of a similar decision by the Eurasian Economic Commission on March 31, 2020 as a part of implementing measures aimed at rapid response to the spread of COVID-19. In accordance with these provisions, the export of onions, garlic, turnips, rye, rice, buckwheat, millet, cereals, whole wheat flour and other food products is prohibited for the period up to June 30, 2020.

Also according to [7] on March 16, 2020 the Republic of Belarus introduced a temporary ban on the export for certain categories of personal protective equipment and medical goods (Figure 2). These goods are not allowed to be exported when they are placed under customs procedures for export, temporary export, outward processing and re-export.

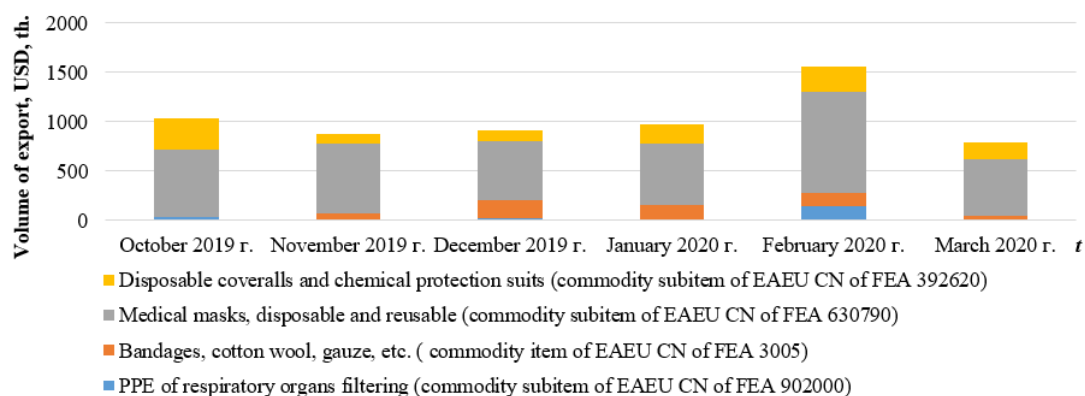


Figure 2. Export volume for certain categories of personal protective equipment and medical products from Belarus within 01.11.2019–31.03.2020, USD, th.

The introduction of the prohibition allowed reducing the export of these goods in March by 48.9% (compared to February), therefore, the population was provided with a sufficient amount of essential goods during the aggravation of the sanitary and epidemiological situation. Thus, it can be seen that there is the application effectiveness of non-tariff measures to prevent or avoid a shortage of goods on the domestic market of the country and the integration association as well as mobility and efficiency of applying such measures in order to protect the economic interests relevant to the social welfare of the population of the EAEU member states.

Economic security (in particular food security) depends on the level of import of primary goods: grain, milk, meat, vegetables, fruits, etc. To ensure the food security of the EAEU member states, annually the EEC sets tariff quotas to overcome the deficiencies of the existing shortage of raw meat and whey in the member states, as well as to facilitate the gradual substitution of imports of certain goods. According to [7] in the Republic of Belarus there is a tariff quota for the import of meat and edible offal of domesticus fowls or turkeys (fresh, chilled, frozen) of commodity subitems 020713, 020714, 020726, 020727 (Table 2).

Table 2

Indicators of tariff quota of the Republic of Belarus and foreign trade of meat and edible offal of domesticus fowls or turkeys commodity subitems 020713, 020714, 020726, 020727 from 2015 to 2019, th.tons

Indicator	Year				
	2015	2016	2017	2018	2019
Tariff Quota of the Republic of Belarus	10,9	10,9	10,9	10,9	10,9
Domestic production	445,6	457,7	488,3	500,1	526,7
Import of meat and edible offal of domesticus fowls or turkeys from third countries	17,3	20,6	16,0	6,4	7,1
Export meat and edible offal of domesticus fowls or turkeys	41,4	49,3	59,7	72,9	88,2

The tariff quota for the import of meat and edible domesticus offal of fowls or turkeys during the period under review remained unchanged, while the domestic production shows annual increase of 4,3% on average. Imports of meat and edible offal of domesticus

fowls or turkeys decreased by 10,2 tons (59%) over five years, while poultry meat production and export of this category of food increased significantly: by 18,2% and 113,0%, respectively. Thus, the tariff quota proved to be an effective measure of non-tariff regulation

used to ensure food security, stability of the domestic market and the establishment of import-substituting production.

However, in the practice of the EAEU, there is a tendency for import by the member countries of goods determined in the framework of tariff quotas from third countries, while in other EAEU member states there is an excess of such goods. For example, the largest volume of tariff quotas among the EAEU member states are distributed to the Russian Federation. At the same time According to [7, 8] to a greater extent meat and edible offal of fowls or turkeys is imported from third countries when, for example, the Republic of Belarus has sufficient production volumes for this category of goods

and there is a possibility to import meat and edible offal of domestic fowls or turkeys from the EAEU member states but not from third countries. A similar situation is observed on the market of certain types of whey and modified whey: Belarus has sufficient production capacity for this product (in 2019, 113 thousand tons were produced in the republic, of which more than 70 thousand tons were exported) to satisfy the demand on the market of the Russian Federation, however, import of this category of goods continue to be made from third countries (Table 3). Thus, it can be concluded that the tariff quota may be an obstacle to the development of mutual trade in goods among the EAEU member states.

Table 3

Tariff Quota and Russia's Foreign Trade Indicators in meat and edible offal of domestic fowls or turkeys and Certain Types of Whey in 2019, th.tons

Indicator	Meat and edible offal of domestic fowls or turkeys commodity subitems 020713, 020714, 020726, 020727	Certain types of whey and modified whey of commodity subitems 40410
Tariff quota of Russia	364,00	15,00
Import goods from third countries	87,15	9,00
Import goods from the EAEU members states	67,29	47,40
Import goods from Belarus	63,35	46,50
Import goods from Kazakhstan	3,94	0,90
Import goods from Armenia	–	0,10

The use of non-tariff regulation measures for the protection and economic support of domestic producers, the regulation of the level of competition on the domestic market is proposed to be considered with a several practical examples and to evaluate the effectiveness of such measures' usage.

According to [7] in Belarus from July 21, 2019 the temporary licensing of import of Portland cement to third countries has been introduced. This measure is taken to improve the cement industry of the

republic being in a difficult situation due to the modernization of cement plants, as with its own production of 4,5 million tons of cement, 540 thousand tons were imported in 2018, i.e. more than 10% of the production volume [9]. However, it's impossible to stem the flow of imported cement totally using the permitted import, since almost half of the imported cement is delivered from Russia, i.e. the EAEU member states, which are not affected by NTMs (Figure 3).

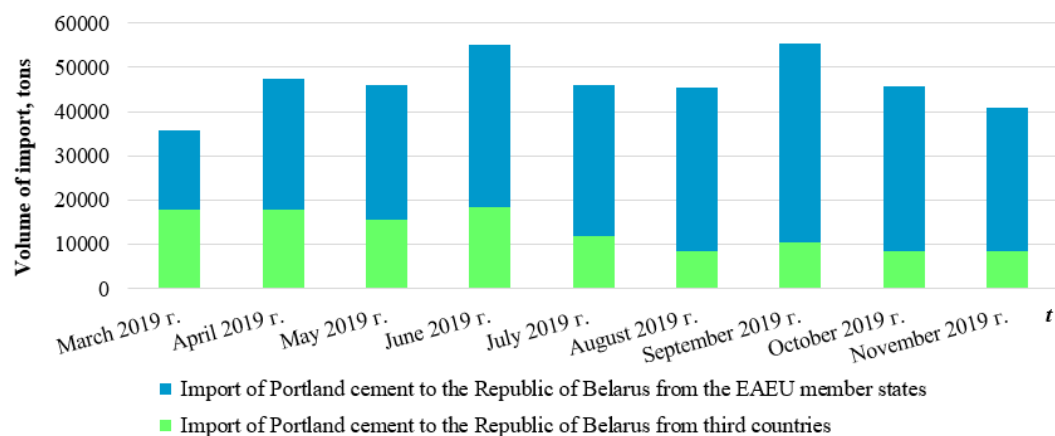


Figure 3. Import volume of portland cement to the Republic of Belarus from 03.01.2019 to 30.30.2019, tons

Only 25% of cement imports come from third countries. Having applied this measure the import slightly decreased, however there was an offset by the import of cement from Russia. Thus, there can be noted the lack of efficiency by the use of NTMs to improve the situation of the domestic cement industry.

Also, the effectiveness of NTMs can be assessed in relation to the export of forest products. Since 2016, such products have been restricted to the export in Belarus, because timber is one of the most important resources on the country. The ban on export of roundwood was imposed with the aim of processing and exporting high-value-added goods rather than raw materials.

However in 2018 the restriction was replaced by a permissive export of wood products. The export of 900 thousand cubic meters of round wood was allowed, because by this time the country had accumulated 3 million cubic meters of wood that could not be processed by domestic enterprises and it was impossible to purchase wood on the domestic market. Moreover, Belarus had to increase deforestation because of bark beetles: more than 27 million cubic meters were cut down compared to 22–23 million pre-planned. For comparison: in 2015 18,5 million cubic meters of wood were harvested, and stocks totaled 1,83 million cubic meters. Thus, despite the adopted

NTMs, in the period from 2015 to 2018, the stocks of unrealized wood increased by 1,6 times, which shows the ineffectiveness of such measures.

The role of NTMs is to prevent of exhaustion of non-renewable natural resources and strategically important goods in domestic production. According to [7] within 2013–2016 the republican tanneries were modernized and their production capacity increased. However, footwear of domestic production, furniture, clothes, haberdashery and other products continue to be produced from imported raw materials, only 25% of all raw materials were domestic leather. The remaining share of Belarusian leather raw materials is exported at higher prices because it is profitable for the producers. Belarus exports both raw hides and skins and raw materials with a minimum degree of processing (semi-finished products). Purchasing a semi-finished product, foreign companies then import ready-made leather for shoe and furniture factories into Belarus, the main added value is created abroad, and the most laborious and harmful types of primary processing of raw materials are carried out in the country. In 2014 the import of raw hides and skins significantly exceeded export causing a real threat to the country's economic security, and therefore NTMs were applied to the export of goods (Figure 4).

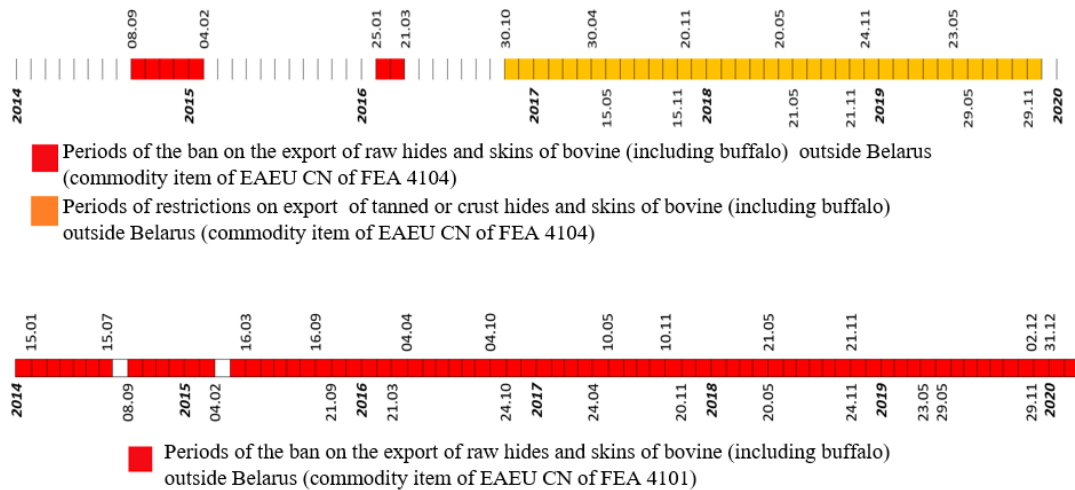


Figure 4. NTMs application periods regarding the export of raw cattle hides and tanned leather from cattle hides from the Republic of Belarus from 2014 to 2020

In order to assess the effectiveness of these measures, it is necessary to analyze the volume of export and import of raw hides and skins of bovine (including buffalo, commodity item 4101) and tanned or crust hides and skins of bovine (including buffalo, commodity item 4104). Thus the analysis of Figure 4 shows that in 2014 the import of raw hides and skins of bovine (including buffalo, commodity item 4101) exceeded the export by 3,225 units. After the ban on export of this raw material outside the Republic was adopted in 2014–

2015, its import decreased as much as 162 times. In 2016 import of goods in position 4101 again increased as much as 87 times, and export of raw materials outside the country also increased as much as 3.2 times compared to 2015. 2017 also has high volumes of export and import of raw materials, however, the rates decreased compared to the reported period. Further, according to [7] in 2018–2019, there is a sharp decrease in the volume of export and import of leather raw materials (Figure 5).

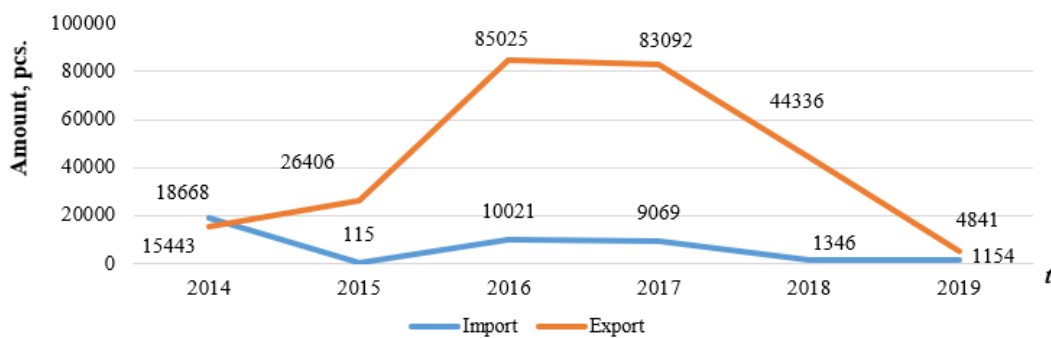


Figure 5. Export and import volumes of raw hides and skins of bovine, including buffalo (commodity item 4101), pcs.

Despite the prohibition on the export of goods in commodity item 4101 CN FEA which was extended with short breaks throughout the period under review the export and import rates vary greatly, therefore, it's impossible to identify a clear trend. The reason for this is the fact that the entire export volume shown in Figure 3 is purchased on the Russian market,

which is not subject to the prohibition. Further, in the Russian Federation, leather raw material is processed and exported to foreign markets. Thus, it is impossible to talk about the effectiveness of non-tariff regulation measures in the form of a ban on the export of leather raw materials outside the Republic of Belarus. The State also controls the export of tanned lea-

ther outside the republic, which is a semi-finished product and is called «wet-blue» on international markets. The production of such product is considered the dirtiest and the most harmful stage of leather processing, so many European manufacturers prefer to outsource it. Tanned leather is much more expensive than raw materials, and it can be produced much faster than goods with the highest degree of processing and high added

value, that is why Belarusian leather industry considers the sale of «wet-blue» for export as a source of income in the form of foreign exchange earnings. However, domestic producers are forced to import materials from abroad due to a shortage on the domestic market. Thus, according to [7] in 2014, the import of tanned leather from cattle hides commodity item 4104 exceeded the export by 454564 pcs. (Figure 6).

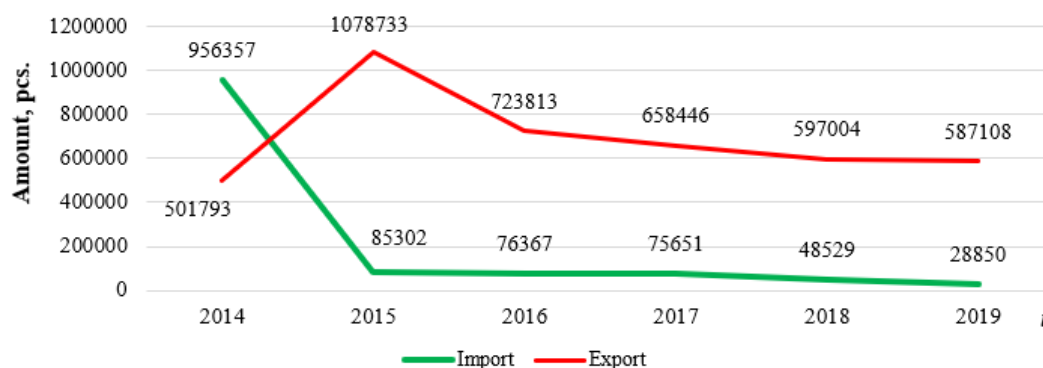


Figure 6. Export and import volumes of tanned or crust hides and skins of bovine, including Buffalo (commodity item 4104) from 2014 to 2019, pcs.

In the period from 2014 to 2016, the state twice introduced a short-term ban on the export of tanned leather outside the republic, which helped to reduce the volume of imports of this product as much as 12,5 times. Further, from 2017 to the end of 2019, licensing was introduced for the export of tanned or crust hides and skins of bovine (including buffalo) 4104 of the unified consumer goods code of the EAEU in order to stabilize the domestic market of leather products as well as providing domestic producers of shoes, furniture and clothes with the necessary raw materials. Thus, in 2017–2019 there is a 2,6-fold decrease in imports of tanned leather which indicates the effectiveness of non-tariff regulation measures to prevent a shortage of strategically important goods used in domestic production.

From 2014 to 2016, the state imposed twice a short-term ban on the export of tanned leather outside the republic which helped to reduce the volume of import of this product as much as 12,5 times. Further, from 2017 to the end of 2019 licensing was introduced for export of tanned leather item commodity 4104 of the unified EAEU CN of FEA in order to stabilize domestic market of leather products and

domestic manufacturers of footwear, furniture, clothes needed raw materials. Thus, within 2017–2019 there is a decrease in the volume of imports of tanned leather as much as 2,6 times which demonstrates the effectiveness of non-tariff regulation measures to prevent a shortage of strategically important goods used in domestic production.

Non-tariff measures are also used to regulate the export or import of precious metals and stones, to protect the security of the state, the life or health of citizens, the environment, the life or health of animals and plants, moral and legal order, and cultural values. For this purpose, non-tariff regulation measures such as the prohibition and authorization of import into the customs territory of the EAEU and/or export from the customs territory of the EAEU have been introduced. Such measures are applied uniformly by all member states. These NTMs are applied to goods included on the lists that pose to some extent a threat to the economic, military, information, social, scientific and technical security of the EAEU member states. These measures regulate the export of cultural property as well as the import and export of precious metals, precious and semiprecious sto-

nes to the customs territory of the EAEU.

Conclusion. Thus non-tariff measures are widespread in trade practice. Currently, more than half of the world trade is affected by non-tariff regulation as it is more flexible compared to tariff protection.

The implementation of non-tariff measures by countries may be conditioned by the protection of the social and/or food security of the state. In other cases, protecting the domestic market and restricting the import of competitive goods often leads to disputes within the WTO which requires the use of a well-developed and objective methodology for quantifying the applied non-tariff regulation measures.

Within the framework of the study, such methods of quantitative assessment of non-tariff regulation measures as coverage ratio, frequency index, tariff (ad valorem) equivalent, and price comparison method were considered. Each of the above methods has its own advantages and disadvantages manifested depending on the scope of their application and the availability of necessary statistical data. However, these methods don't allow to assess objectively the effectiveness of certain non-tariff regulation measures of foreign trade.

The calculated coefficient of NTMs application has shown that about half of the EAEU market and the Republic of Belarus are under the influence of non-tariff regulation mea-

asures. Currently, in conditions of an acute epidemiological situation non-tariff regulation measures are effectively used to prevent a shortage of goods on the domestic market of the country and integration association. The tariff quota is effective in ensuring food security and establishing import-substituting production. In recent years NTMs have been actively used in the Republic of Belarus to provide economic support to domestic producers and to regulate the level of competition in the domestic market of cement and wood products, but the results show that these measures are not effective enough. NTMs are also being introduced to prevent the exhaustion of goods used in domestic production. Their effectiveness is evaluated by the example of the country's leather industry: NTMs in the form of a ban on the export of raw hides and skins doesn't show the effectiveness; measures of non-tariff regulation in the form of licensing the export of tanned or crust hides and skins outside the republic has led to a 2,6-fold decrease in the volume of imported goods that indicates their effectiveness. At the EAEU level NTMs are applied to regulate the export or import of precious metals and stones, protect the safety of state accidents, the life or health of citizens, animals, plants, the environment, moral and legal order and cultural property.

Список литературы:

1. Батычков В.Т. Таможенное право в вопросах и ответах. – Таганрог, Издательство ТРТУ, 2011 г. – 199 с.
2. Дюмулен И.И. Нетарифные ограничения в международной торговле. Зарубежная практика. – Москва: ВАВТ МВЭС РФ, 1997 г. – 15 с.
3. S. Laird. Quantitative methods for trade barrier analysis. – N.Y.: New York University Press. 1990. – 227 p. (in Eng)
4. J. Whalley. What can the developing countries infer from the Uruguay Round models for future negotiations? – UN. 2000. – 29 p. (in Eng)
5. Jaime de Melo. Non-tariff measures: data and quantitative tools of analysis. – United Nations Conference on Trade and Development. 2018. – 36 p. (in Eng)
6. Дюмулен И.И. Нетарифные меры в современной международной торговле: некоторые вопросы теории, практика и правила ВТО, интересы России // Российский внешне-экономический вестник. 2016. № 2. С. 16–17.

References:

1. V. Batychkov. Customs law in questions and answers. *Taganrog, Izdatelstvo TRTU*. 2011. 199 p. (in Rus)
2. I. Dumoulin. Non-tariff restrictions in international trade. Foreign practice. *Moscow. VAVT MVES RF*. 1997. 15 p. (in Rus)
3. S. Laird. Quantitative methods for trade barrier analysis. *N.Y.: New York University Press*. 1990. 227 p.
4. J. Whalley. What can the developing countries infer from the Uruguay Round models for future negotiations? *UN*. 2000. 29 p.
5. Jaime de Melo. Non-tariff measures: data and quantitative tools of analysis. *United Nations Conference on Trade and Development*. 2018. 36 p.
6. I. Dumoulin. Non-tariff measures in modern international trade: some issues of theory, practice and rules of the WTO, interests of Russia. *Rossiyskiy vneshneekonomicheskiy vestnik*. 2016. No. 2. pp. 16–17. (in Rus)

7. Интерактивная информационно-аналитическая система распространения официальной статистической информации // Национальный статистический комитет Республики Беларусь [Электронный ресурс]. – Режим доступа: <http://dataportal.belstat.gov.by/>
7. Interactive information and analytical system for the dissemination of official statistical information. *Nazional'niy statisticheskiy komitet Respubliki Belarus'*. Available at: <http://dataportal.belstat.gov.by/> (in Rus)
8. Таможенная статистика внешней торговли // Федеральная таможенная служба [Электронный ресурс] – Режим доступа: <http://stat.customs.ru/>
8. Customs statistics of foreign trade. *Federalnaya tamozhennaya sluzhba*. Available at: <http://stat.customs.ru/> (in Rus)
9. Министерство антимонопольного регулирования и торговли Республики Беларусь // МАРТ Республики Беларусь. [Электронный ресурс]. – Режим доступа: <https://mart.gov.by/>
9. Ministry of antimonopoly regulation and trade of the Republic of Belarus. *MART Respubliki Belaris'*. Available at: <https://mart.gov.by/> (in Rus)