Impact of Customs and Tariff Regulation on Economic Security

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Abstract

The paper aims to assess the effectiveness of the impact of customs and tariff regulation on individual indicators of economic security. The research is based on a comprehensive and systemic analysis and general scientific methods of knowledge—analysis, synthesis, dialectical method, systematization, classification, process and systemic approaches, and the method of comparison. The authors assess the state of Russia's economic security in the benchmark years 2015 and 2019. It is shown that despite the positive dynamics of the value of many indicators, some of them, including those related to foreign economic activity, are outside the threshold values. The authors conducted a comparative-chronological analysis of the dynamics of foreign trade in certain categories of goods and changes in measures of customs and tariff regulation applied to them: import and export duties and changes in the classification and coding of goods, which increase the differentiation of the establishment of duty rates for similar goods. Economic security indicators affected by these changes are identified. The article was independently written by a team of authors. The theoretical basis of the research is based on the scientific works of Russian and foreign scientists. The statistical base of the research is represented by the official publications of the executive authorities.

Keywords

Economic security · Customs and tariff regulation · Trade balance · Customs · Globalization

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1 Introduction

When the country carries out foreign trade, ensuring economic security is becoming increasingly important. Early identification of challenges and threats and prompt response to them will ensure the effective functioning of the economy and economic security.

To assess the current state of the economy, the authors analyze the indicators presented in Table 1, which most reflect the level of the economy. To track the dynamics, the authors selected two years at four-year intervals—2015 and 2019.

Thresholds are set by Russian and foreign scientists, who provide an expert assessment, applying various mathematical calculations and expert methods (Krivorotov et al., 2019; Nosov, 2019; Savkin, 2020).

The index of the physical volume of GDP characterizes the rate of economic growth over a given period. It characterizes the output of goods in volume, not in monetary terms. This indicator exceeded the threshold value by two times in 2015 and 2019, which indicates the high performance of the country's socio-economic system.

The share of investment in fixed capital affects the development of the country's economy. Investments are used to introduce new technologies in fixed capital, on the basis of which goods are produced. Investments provide an opportunity to improve the equipment, thereby upgrading the goods produced, resulting in an increase in profits of the enterprise. In 2015 and 2019, fixed investment as a percentage of GDP is half of the threshold, meaning that fixed capital is not fully funded, causing companies to face difficulties due to underinvestment, which results in a failure to earn the necessary minimums and gaps in the economy.

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Table 1 Values of economic security indicators in 2015 and 2019 and their thresholds

Indicator	Threshold value	Actual data in 2015	Actual data in 2019
1	2	3	4
Index of physical volume of GDP (% to the previous year)	Not less than 50%	98.0	102.0
GDP per capita (at purchasing power parity) (current prices, USD)	–	24,059	29,440
Share of investment in fixed capital in GDP (current prices, % to total)	Not less than 40%	20	20.6
Degree of depreciation of fixed assets (at the end of the year, %)	No more than 35%	48.8	51.3
Index of industrial production (% to the previous year)	105	100.2	103.3
Index of physical volume of export (% to the previous year)	–	103.7	100.7
Index of physical volume of imports (% to the previous year)	–	75	103.4
Index of production by type of economic activity "Extraction of minerals" (% to the previous year)	100.1	101.3	103.4
Retail trade turnover (million rubles)	–	27,526,793.2	33,624,303.3
Share of the working-age population in the total population (%)	60	57.4	56.3
Share of citizens with income below the subsistence minimum (% of the total number)	No more than 7%	13.4	12.3
Share of machinery, equipment, and vehicles in total imports (%)	No more than 15%	44.85	46.17
Inflation rate (%)	Up to 6%	12.91	3
Balance of trade (million USD)	–	160,920	178,997

Source: Developed by the authors

The increased level of depreciation of fixed assets grows out of the insufficient share of investment in fixed capital in GDP. From 2010 to 2019, the depreciation of fixed assets in the Russian Federation has steadily increased and reached 51.3% by 2019, which is 5.6% higher than in 2010. Fixed assets are assets used by an organization for a long period (one year or more) in the production of goods or services or when lent to other organizations for the same purpose. Fixed assets partially or completely lose their consumer properties and their value over time.

The index of industrial production plays an important role in investment. By analyzing the dynamics of the index, it is possible to assess the potential and prospects of investments because the investor will be able to see in what phase the index is now (decline or growth) and calculate the forecasts of industrial production. In 2015 and 2019, the index value was almost a threshold value; hence, there is potential to attract investment.

The indices of the physical volume of exports and imports, reflecting the ratio of the volume of exports and imports of the current year to the previous year, should have an increasing dynamic because, with the growth of these indicators, the country has more revenue to the federal budget, replenished by customs authorities in the implementation of the fiscal function.

From 2015 to 2019, retail trade turnover grew by more than 6 trillion rubles. Therefore, the national budget in 2019 received more money than in 2015. However, considering the growth of the physical volume of imports from 75% in 2015 to 103.4% in 2019, we can see that imported goods are more in demand. Thus, domestic products are not demanded by the population.

As evidenced by the indicator "Share of machinery, equipment, and vehicles in total imports," Russia is highly dependent on foreign supplies of machinery and equipment, as evidenced by the indicator. To even out the balance and reduce Russia's dependence on supplies of machinery and equipment, their share should exceed 15% (Andronova, 2015). However, the actual values in 2015 and 2019 exceeded the threshold almost three times.

In 2015 and 2019, Russia had more revenues in the budget than expenditures from it, as evidenced by the trade surplus. It is worth noting that imports of goods played a significant role in this indicator, which increased in 2019 (compared to 2015); the country is more interested in foreign products than domestic ones.

Thus, we can conclude that all indicators of economic security are related to each other; one indicator affects the other. For example, when inflation rises, the key rate of the Central Bank of the Russian Federation rises; when the key rate rises, the volume of GDP falls. When looking at the indicators for 2015 and 2019, we can see that the indicators that depend on foreign conditions, supplies, investors, etc., have negative results, expressed in exceeding thresholds or,

Table 2 Impact of the application of customs and tariff regulation measures on the share of goods in groups 84–90 of CN FEA of the EAEU in 2015 imports, thousand USD

	H1	H2	Total in 2015	Semiannual difference
All products	86,736,421.20	95,667,109.10	182,403,530.30	8,930,687.90
Groups 84–90	38,479,317.20	43,320,787.40	81,800,104.60	4,841,470.20
Share of groups 84–90 in the total volume of imports	44.4%	45.3%	44.8%	54.2%

Source: Compiled by the authors based on Federal Customs Service of the Russian Federation (n.d.)

conversely, the value does not reach the required level. We also observe a low share of investment in fixed capital, high degree of depreciation of fixed assets, dependence on foreign supplies of machinery and equipment, and increasing demand for imported products and its decline in domestic goods.

2 Methodology

The theoretical basis of the research is grounded on the results of scientific research of the authors, who have also studied the relationship and the possibility of using customs and tariff regulation in the interests of economic security (Bogaturova, 2017; Pak, 2020; Rebrina & Silaeva, 2020; Severyanova, 2017; Shcheka, 2019). Despite substantial contributions, most studies are descriptive and reduced to theoretical calculations and logical models. This research tries to illustrate the real impact of earlier measures on economic security indicators.

The research methodology consists of a chronological and temporal analysis of the impact of measures of customs and tariff regulation on economic security indicators. In the first stage, out of the entire array of indicators, the authors selected those related to foreign economic activity or its regulation. The second stage is represented by a generalized analysis of the dynamics and structure of Russia's foreign trade (FT) in the considered period. The third stage collected and grouped changes in customs-tariff regulation by groups of goods that are significant in WTO according to the results of the second stage. In the final stage, the authors identify and illustrate the effects of customs-tariff regulation measures and evaluate their impact on some indicators of economic security.

The "Results" section presents the conclusions of the last stage of the research.

3 Results

In 2015, by the Decisions of the Board and Council of the EEC, many codes of Commodity Nomenclature of foreign-economic activity (CN FEA) were divided into two codes: one code retained the previous import rate, and the second code had a different rate from the original one, most often in the amount of 0%.

For example, "Aerospace equipment" code 8457 10 900 8 with a duty rate of 10%, 8458 11 200 0 with a duty rate of 7.50%, and others were split into two codes: 8457 10 900 3 and 8458 11 200 1 with a rate of 0% for the period from July 11, 2015, to the end of 2015, and 8457 10 900 9 with a rate of 10% and 8458 11 200 9 with a rate of 7.5% for an indefinite period.

The division of one CN FEA of the EAEU code into several codes is associated with the need to attract certain equipment to the country. Nevertheless, it is impossible to completely waive the amounts of customs duty due to the fiscal function of the customs authorities. By separating the code, the country avoids the adulteration of goods, due to which the incomplete collection of customs duties is possible. Consequently, this division will affect such indicators of economic security as the index of industrial production, the degree of depreciation of fixed assets, the index of physical volume of imports, and the index of production by type of economic activity "Mining of minerals" when importing equipment involved in this area, then the share of machinery, equipment, and vehicles in total imports.

In 2015, the decisions of the Board and the Council of the EEC applied measures of customs-tariff regulation, namely changes in the rates of import customs duties, to 16 CN FEA codes of group 84, 2 codes of groups 85 and 86, and 3 codes of group 89. The share resulting from the change in rates in 2015 for goods in groups 84–90 is presented in Table 2.

Based on the measures of customs-tariff regulation taken in 2015 for the goods of groups 84–90, we can see that in the second half of the year, the volume of imports of goods from the taken groups increased in value terms; in the second half of the year, after the introduction of measures, import of goods of groups 84–90 was more than 50% relative to the first half, that is, more than half of all imported goods. The result is both positive and negative. A positive result is an increase in the amount of revenues to the federal budget by almost $5 billion. The increase in federal budget revenues is a positive result; due to the import of equipment, the population can produce new goods, resulting in an increase in the index of physical volume of GDP. A negative result is a fact that the increase in import of goods of groups 84–90 at the expense of reducing import duties increases the value of the economic security indicator "Share of machinery, equipment, and vehicles in total imports," which, even without the

introduction of duties exceeds the threshold value by almost three times.

The decision of the Board of the EEC reduced the rates for raw materials of mineral origin containing precious metals from 12.5% and 15%, depending on the code, to 0%. It also extended the zero rates for waste and scrap of precious metals from January 1, 2017, until the end of 2019, and then for the period from 2020 to 2022. In 2018, zero rates for raw materials of mineral origin containing precious metals were again approved for the period from August 24, 2018, to June 30, 2020.

It turns out that waste and scraps of precious metals are imported into the territory of the EAEU under four CN FEA codes of the EAEU at a rate of 0% from June 1, 2015, to the present time continuously. The decrease in rates affected the increase in imports of this group, but these measures only increased the index of "physical volume of imports." Since the rates were reduced for raw materials, it proves that the country is dependent on foreign materials. However, due to an increase in imports of 71 groups, the processing of imported raw materials increases the indicator "retail turnover," which results in the budget of the country receiving money from the sold final precious products.

The second and third largest imports by value in 2015 and 2019 are goods in groups 01–24 and 28–40. However, despite the large volumes of imports of these goods, they are less actively applied to change the rates of import duties. Thus, from 2015, the EEC took the following decisions to the goods of groups 01–24: reduced rates for fish, fertilized fish roe agricultural products, cashew nuts, and cocoa products.

Only agricultural products have upward changes in rates to restrict imports of cabbage, group 0704, nuts from group 0802, and fruits from groups 0804 and 0806. Changes in the rates for goods groups 01–24 affect the index of physical volume of imports, retail trade turnover, and the share of the working-age population in the total population.

The index of the physical volume of imports can be calculated using the Laspeyres formula:

$$I_q = \frac{\sum q_1 p_0}{\sum q_0 p_0} \quad (1)$$

where:

I_q—index of physical volume of imports;
q_1—volume of goods in the current year;
q_0—volume of goods in the base year;
p_0—price of goods in the base year.

The index of the physical volume of imports is calculated for the country as a whole. However, there are many constituent links in the calculation, one of them being imports of goods of groups 01–24, the import volumes of which in 2015–2016 were $25–26 billion. In 2017–2020, they ranged from $28.8 billion to $29.8 billion. In 2021, they amounted to a record $33.9 billion. Based on the formula (1), we can see that when calculating the index of physical volume of imports by base weights, the price in the numerator and denominator are the same, only the volumes are different. This proves that the volume affects the result of the calculations. Therefore, since the rate of customs duty becomes less to increase the volume of imports, if the rates for goods of groups 01–24 change to the lower side, the index of physical volume of imports will increase due to a clear increase in the volume of supplied products.

The amount of food in a country plays an important role and is directly related to economic and food security. From January 1, 2019, to June 30, 2020, in which a reduction of import customs duties rates was applied to four codes of the CN FEA of the EAEU that classify squash—2007 99 500 3, 2007 99 500 4, 2007 99 500 5, and 2007 99 500 7, a positive dynamic of import of these goods was observed. In January 2019, imports of these goods were only $1259.21 thousand. By November 2020, the volumes had increased 3.8 times and reached $4743.97 thousand. In May 2020, the figure was $5565.34 thousand. Thus, a high degree of dependence of import volumes and, consequently, economic security indicators on the application of measures of customs and tariff regulation is illustrated.

Another effective tool of customs and tariff regulation is the export duty. An example of a change in export duty rates could be a change in export rates for goods with a low degree of processing: oil, timber, gas, coal, and other resources.

The effect of introducing a 10% rate in the second half of 2021 for goods 4407 11 930 0 and 4407 11 980 0 is presented in Fig. 1. By increasing the size of export rates, it was possible to contain the growing exports of the first half of 2021 in the second half of that year.

The most exported products are fuel and energy products and mineral products from groups 25–27. However, export duty rates are set for timber and pulp and paper products, namely group 44, timber, particularly unprocessed and "roughly processed" timber (moisture content above 22%). The change in export rates is an incentive for domestic enterprises for deep timber processing and helps in decriminalizing the timber industry.

Export duty rates for crude oil 2709 00, diesel fuel 2710 19 421 0–2710 19 480 0, 2710 20 110 0–2710 20 190 0, commercial gasoline 2710 12 411 0–2710 12 590 0, from 2710 20 900 0 and waste oil products 2710 91 000 0–2710 99 000 0 of the CN FEA of the EAEU, and the price level for Urals crude from February 2018 to date are shown in Fig. 2. Export duty rates for crude oil and used oil products are the same. The rates for marketable gasoline and diesel

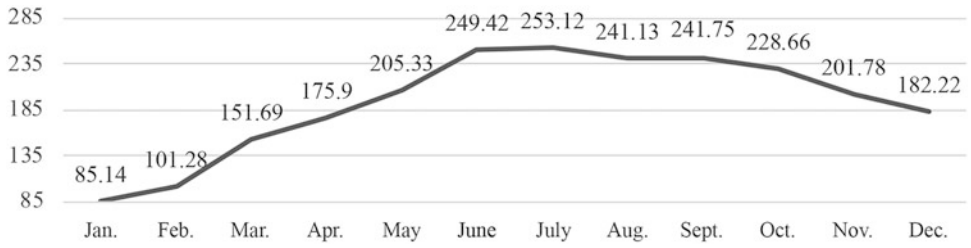

Fig. 1 Exports of goods 4407 11, USD, 2021. *Source*: Compiled by the authors based on (Federal Customs Service of the Russian Federation, n.d.)

fuel, light and middle distillates, benzene, and toluene are also the same.

The highest rate for crude oil and diesel was registered in November 2018, while the volume of crude oil exports was 21820.6 thousand tons. The lowest rate for crude oil and diesel was in May 2020, as was the price of Urals oil. The highest rate for diesel fuel came in November 2018.

The change in export duty rates mainly affects the change in federal revenues. Fewer volumes of oil were exported in 2020 than in 2018–2019. Export duty rates on energy resources were reduced in 2020, resulting in a lower percentage of customs payments on crude oil to the budget in 2020.

Allocating funds from the budget can affect economic security indicators. For example, when allocating funds for the purchase of new equipment, there is an opportunity to reduce the degree of depreciation of fixed assets, increasing the index of physical volume of GDP, increasing the share of investment in fixed capital in GDP, increasing the index of industrial production and the index of economic activity "mining of minerals," and so on.

4 Conclusion

The findings prove the possibility and sufficiently high effectiveness of the application of customs and tariff regulation in order to ensure and maintain economic security. Changes in the classification of goods under the CN FEA and changes in the rates of import and export customs duties can directly or indirectly affect many indicators of economic security. Given their interconnectedness and interdependence, adjustments through customs and tariff regulation may lead to the deterioration of some indicators at the expense of improvement of others.

Scientists currently foresee the end of the era of globalization and friterism and the change of national economies to self-sufficiency with a significant increase in protectionism. In these circumstances, measures of customs and tariff regulation will become increasingly relevant, and their correct condition can positively affect overcoming the post-crisis phenomena and ensure the economic security of the country in the new conditions of the global economy.

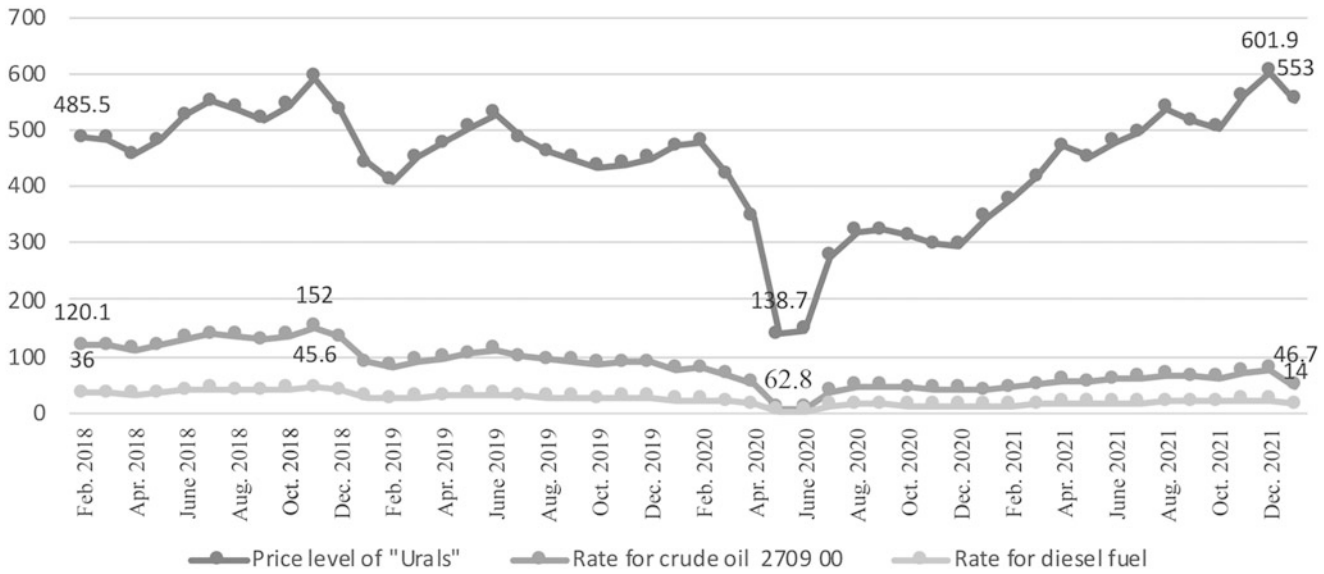

Fig. 2 Dynamics of average Urals crude oil price and export duty rates for crude oil 2709 00 and diesel fuel from February 2018 to March 2022, USD per ton. *Source*: Compiled by the authors based on (Ministry of Energy of the Russian Federation, n.d.)

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