

# East-West Transport Corridor: Issues of Customs and Logistics Infrastructure Development

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**Abstract**—The development of customs and logistics infrastructure of international transport corridors is very important due to the increasing importance of global supply chains. The purpose of the article is to determine the prospects for the development of the international transport corridor "East-West" and designate the most important ways to improve its customs and logistics infrastructure. The article reveals the key patterns of change in trade turnover between the countries-participants of the East-West corridor. It identifies the factors that have the greatest impact on the volume of cargo transportation, and outlines the prospects for the development of foreign trade cooperation. The authors identified the main problems hindering the full use of the transit potential of the transport corridor, as well as specified areas for improving its transport and customs and logistics infrastructure. The urgency of the issue under study is caused by the increased interest of the countries participating in the East-West international transport corridor to its further development and increase in the volume of mutual trade. For Russia, the development of the transport corridor is especially important, as it allows not only strengthening its own export potential, but also increasing budget revenues by attracting significant transit cargo flows going between the countries of Europe and Southeast Asia.

**Keywords**—international transport corridor, customs and logistics infrastructure, trade, export, import

## I. INTRODUCTION

Under modern conditions, the development of the transport and logistics system is considered as the most important growth point of the economy of the Russian Federation. In the current Transport Strategy of Russia, the priority actions are as follows:

- integration into the global transport space through the structures of international transport corridors (ITC),
- realization of the country's transit potential,
- development of regional and foreign economic logistics links

It is very important to find opportunities to embed Russia in the international trade system by creating conditions for the intensification of cargo flows along the Russian part of the New Silk Road.

During the movement of goods through international transport corridors, it is inevitable that it is necessary to go through the relevant customs formalities. One of the obstacles to successful integration into the system of international transport corridors is the insufficient level of development of customs and logistics infrastructure in the countries of the Eurasian Economic Union (EAEU) in general and in the Russian Federation in particular. The development of a modern customs and logistic framework for international transport corridors is a prerequisite for increasing international trade shipments and attracting transit cargo flows.

The relevance of the issue is due to the serious interest of the state authorities to the creation of an administrative and infrastructural basis for sustainable economic growth at both the national and regional levels.

The need to modernize the existing transport and logistics infrastructure, to effectively use the country's geographical potential, to take leadership positions in the creation of international transport and logistics systems was repeatedly asserted by government officials and Russian scientists.

F. Pekhterev [5] and A. Beifert [1] have studied the problem of development of international transport corridors passing along the European part of Russia. Y. Shcherbanin [19] and R. Fedorenko [8] have provided a sufficiently detailed analysis of problems of the international transport corridor "North-South" functioning.

A fairly large number of modern publications by foreign researchers in the EU [10] and in the Asia-Pacific countries [20] are devoted to the development of international transport corridors. F. Günther and others noted the importance of modernizing the transport infrastructure of ITC for its development [4], Liao and others pointed out the urgency of the problem of improving the customs escort of goods passing through the corridor [9].

The scientific significance of this problem is due to the need for an integrated approach to the formation of the framework of the international transport corridor, which unites the terminal warehouse infrastructure, the customs administration system and the range of services provided by logistics providers and customs brokers.

II. METHODS

The methodological basis of the study consists of general scientific methodological approaches, such as system-structural, causal, situational, comparative, economic-statistical, factor analysis, graphical methods.

III. RESULTS

According to the Transport Strategy for the Development of the Russian Federation for the period until 2021, the priority task is to develop the transit potential of the country and attract significant volumes of Eurasian freight traffic. Currently, within the framework of the East-West ITC, cargoes are mainly transported between the EAEU, China and the EU. Despite the possibility of attracting transit cargo, the use of the ITC for the transportation of Russian export and import cargo remains a priority, which requires regular monitoring of cargo turnover between the EAEU, the EU and China (Table 1).

TABLE I. CHARACTERISTICS OF FOREIGN TRADE BETWEEN THE EAEU, THE EU AND CHINA, 2014-2018

	2014 billion dollars	2015, billion dollars	2016, billion dollars	2017, billion dollars	2018, billion dollars.	Absolute deviation, 2018 from 2014, billion dollars.	Growth rate, 2018 to 2014, %	Absolute deviation, 2018 from 2016, billion dollars.	Growth rate, 2018 to 2016, %
<b>EAEU - EU</b>									
Export	314	199	155	192	247	-66	78.8	92	159
Import	133	84	82	100	104	-29	78.2	22	127
Turn-over	447	283	237	293	352	-95	78.6	115	148
<b>EAEU - China</b>									
Export	48	35	33	45	63	15	131.3	30	191
Import	60	43	45	57	63	2	104.5	17	139
Turn-over	108	78	78	102	126	17	116.3	47	161

Source: Compiled by the authors based on the analytical report of the Eurasian Economic Commission [2].

In recent years, the European Union has been a key trading partner of the EAEU in general and Russia in particular. The imposition of sanctions and the subsequent anti-sanctions, adopted in 2015, the economic crisis in the Russian Federation, as well as a significant depreciation of the ruble against the dollar and the euro led to a significant decrease in turnover in 2015 and 2016. In two years, trade between the EAEU and the EU has decreased by 47%, while imports decreased by 37%, and the volume of export operations decreased by 50.5%. However, starting from 2017, the dynamics changed to a positive one, and over the next two years, the trade turnover increased by 48% compared to 2016. Especially significant was the increase in exports, which amounted to 59%, while the volume of import operations

increased by 29%. Despite these increases, even at the end of 2018, the foreign trade turnover between the EAEU and the EU did not reach the pre-sanction level, making up only 78% of the 2014 volumes. At the same time, the dynamics of recent years is positive, which makes it possible to talk about the existing potential for expanding the volume of mutual trade.

Trade between the EU and China developed in a similar scenario. The economic crisis and the weakening of the ruble in 2015 and 2016 led to a drop in trade turnover by 27% compared to 2014, but the subsequent growth in the next two years made it possible to fully compensate for this decline. Moreover, by the end of 2018, the trade turnover between the EAEU and China was 16% higher than in 2014.

In the structure of foreign trade of the EAEU, the most significant share is occupied by the export and import operations of Russian companies, which according to the data of 2018 accounted for 84% of the total foreign trade (Figure 1). The second place in terms of turnover is Kazakhstan (10% for 2018), the third - Belarus (5% for 2018). The share of Armenia and Kyrgyzstan in 2018 accounted for a little over 1%. Therefore, in the subsequent analysis of the state of the customs and logistics infrastructure, Russia was considered as the main object of study for being the most important participant in foreign trade of the EAEU countries. Russia has now set the task of intensifying transportation along international transport corridors passing through the country's territory. The goal is to create conditions for increasing the volume of exports of Russian companies, as well as attracting goods transported between the EU and countries of the Asia-Pacific region to tap the country's transit potential.

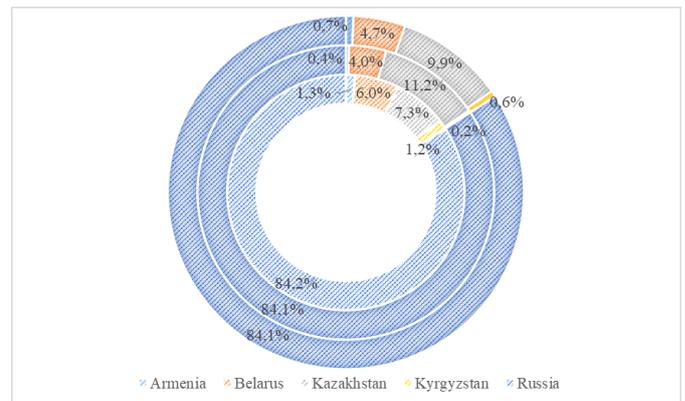


Fig 1 Structure of foreign trade of the countries participating in the EAEU, 2018

Source: Compiled by the authors based on the analytical report of the Eurasian Economic Commission [http://www.eurasiancommission.org/ru/act/integr\\_i\\_makroec/dep\\_stat/tradestat/analytics/Documents/2018/Analytics\\_E\\_201812.pdf](http://www.eurasiancommission.org/ru/act/integr_i_makroec/dep_stat/tradestat/analytics/Documents/2018/Analytics_E_201812.pdf)

The international transport corridor "East-West" has significant transit potential. In the structure of international trade, the volume of trade between the EU and the Asia-Pacific countries plays a significant role. Compared to 2000, the volume of trade between European and Asia-Pacific countries increased by more than four times by 2018.

Aproximately 98% of international cargo transported between the EU and the Asia-Pacific countries are transported by sea. In recent years, there has been a significant increase in rail traffic between the EU and the Asia-Pacific countries. So, in 2010 the volume of rail transportation between the EU and China was about 14 thousand TEU, and in 2017 this figure was 262 thousand TEU.

The growth of container traffic along the route China - EAEU-EU is largely due to rail transportation subsidies in China. The actual “zeroing” of the tariff for container transportation across the territory of the People's Republic of China contributed to the expeditious switching of the freight traffic of Chinese exporters from sea routes to rail transport.

Under these conditions, the East-West transport corridor is an attractive alternative to the traditional sea route for shipping containers from Asia to Europe. It is based on the Trans-Siberian Railway, the use of which makes it possible to shorten the route between Europe and Asia by 8,000 kilometers and save 8-19 days of transit time. Russia is making a lot of efforts to develop this transport artery on its territory.

The main advantage of the ITC "East-West" is to reduce the distance of transportations by more than two times. Container transportation by rail has advantages (compared to sea) in the following indicators:

- speed (terms) of transportation,
- regularity (rhythm) of traffic,
- reliability (guaranteed delivery on time and safety of cargo),
- ability to deliver cargo to a vehicle at any point

One of the weak points of the ITC "East-West" is the lack of unification of technological processes and customs procedures. The solution to this problem will reduce the time and cost of transportation.

Creating an effective customs and logistics infrastructure at the entrance and exit of the ITC, and, in the future, on the internal sections of the route, will not only increase the transit traffic, but also help to include a number of Russian regions into active international trade.

The development of a terminal and logistics infrastructure linked to the China-EAEU-EU railway network solves the problem of providing modern logistic services to consignors and consignees both in domestic and foreign trade, including transit. At present, when transit cargo transportation is carried out by container trains on direct routes, without re-forming (sorting) in the territory of the EAEU countries, the projects of infrastructure development are focused on the needs of domestic and export-import operations, rather than international transit.

Russian Railways, together with other investors, is implementing a large-scale infrastructure project - the creation of a network of transport-logistics centres (TLC) on the Russian territory. The network being created (more than 50 TLCs and their satellites in conjunction with the necessary

reconstruction of the railway infrastructure), connected by regular container trains, will allow Russian Railways providing the overland freight traffic along the route EU-EAEU-China. This is one of the tasks implemented under the federal target program “The development of the transport system of Russia” [12].

In 2012, the Russian Railways Board approved the Concept for the establishment of a TLC in the territory of the Russian Federation. The document provides for the phased construction of facilities and commissioning of the TLC network capacity. At the initial stage, a backbone network should be formed, which will serve as a stimulating factor for the entry of potential investors into terminal infrastructure and logistics infrastructure development projects.

Among the large railway administrations that are actively developing the logistics sector, it is also worth highlighting the Kazakh company KTZ. The company received from the Government of the Republic of Kazakhstan the status of a national integrated translogistic operator [3].

One of the key problems that impede the full use of the capacity of ITC "East-West" is the weak organization of customs services for goods flows, which is emphasized both in the works of economists and in the studies of international organizations. In particular, in the World Bank's ranking of Logistics Perfomance Index (2018) in terms of “International shipments”, Germany is in 4th place (3.86 points), China is in 18th place (3.54 points), Russia ranks the 96th place (2.64 points). The situation for the indicator "Customs services" is not better. So, Germany is on the 1st place (4.09 points), China is on the 31st place (3.29 points), Russia is on the 97th place (2.42 points). Germany is considered in this comparison due to the fact that the share of this country in the total trade turnover between the EAEU and the EU has been the largest in recent years.

The World Bank specialists in the process of compiling the Doing business rating calculate the costs of standard export-import supplies. In the 2019 ranking, the results of calculations based on data as of May 2018 are presented (Table 2-4).

TABLE II. COST STRUCTURE FOR EXPORT-IMPORT OPERATIONS IN RUSSIA, 2018

Cost elements	Time expenditures, hours		Financial expenditures, dollar/container	
	Export	Import	Export	Import
Documentary compliance	25.4	42.5	92	152.5
Border compliance	66	30	580	587.5
Total	91.4	72.5	672	740

Source: World Bank reports. Doing Business: Understanding Regulations for Small and Medium-Size Enterprises. Economy profile: Russia (2019) [14]

On the 1<sup>st</sup> of January, 2018, the new Customs Code of the Eurasian Economic Union entered into force, which led to some distortion of the results. The new code greatly simplifies

the preparation of documents for a respectable participant in foreign economic activity, creates conditions for the automatic issuance of declarations, establishes the obligation of customs authorities to justify requesting additional documents, instructs customs officers to request existing documents from various regulatory agencies, including the tax service, on their own, shifts the focus to post control when importing, which together significantly speeds up the processes of customs clearance and control role. At the same time, as of May 2018, the opposite effect was observed: so, in comparison with similar results in the 2018 ranking, the financial costs of the importer increased from 560 to 740 dollars per container, and the time costs increased from 57 hours to 72, five. However, these indicators are considered by many experts as temporary, due to the difficulties of the transition period observed at the beginning of the new code.

Russia as the leader of the EAEU is actively engaged in the modernization of the system of customs services for transit flows. The EAEU countries pursue a consistent policy to unificae customs and border rules and documentation, as well as to reduce the time required to perform border and customs inspection operations.

The Customs Code of the Eurasian Economic Union, which entered into force on January 1, 2018, provides:

- automation of all customs systems;
- transition to electronic declaration (rejection of paper media);
- sufficiency of electronic documents (other documents - only as a last resort);
- use of the “single window” mechanism.

This will ensure:

- improvement of customs administration, taking into account the current level of information technology development;
- maximum reduction of the national segment of customs regulation;
- widespread introduction of international experience and practice in the legislation of the EAEU countries.

The crucial point is the implementation of customs control at the external border of the EAEU countries and the subsequent non-stop crossing of the internal borders of the Union countries by cargo - without additional customs operations. Thus, transit container trains traveling along the most intensive transcontinental China-Kazakhstan-Russia-Belarus-Poland route pass through customs and border control only at the Kazakhstan-China and Belarus-Poland borders (subject to prior notification by the railway carrier and the absence of circumstances requiring additional checks).

Over the past decades, China has consistently made active efforts to simplify the procedures for customs clearance of export-import shipments. Back in 2001, China launched an ambitious project to develop a “one-stop” electronic declaration system - the Golden Customs Project.

The development of railway shipments via the ITC East-West is facilitated by the policy of subsidizing land container transportation from China to the EU, which has been carried out since 2011. It led to the actual zeroing of the consignor’s costs for transportation in China. This suggests that the costs for the implementation of export shipments at ITC "East-West" are currently even lower than the average figures presented in Table 3.

TABLE III. COST STRUCTURE FOR EXPORT-IMPORT OPERATIONS IN CHINA, 2018

Cost elements	Time expenditures, hours		Financial expenditures, dollar/container	
	Export	Import	Export	Import
Documentary compliance	8.6	24	73.6	122.3
Border compliance	25.9	48	314	326
Total	34.5	72	387.6	448.3

Source: World Bank reports. Doing Business: Understanding Regulations for Small and Medium-Size Enterprises. Economy profile: China (2019) [15]

The main administrative and legal obstacle to the increase in freight turnover between China. the EAEU countries and the EU are differences in transport law system. In Europe, it is governed by the provisions of the Convention concerning International Carriage by Rail (COTIF). In the CIS countries, the Baltic States, as well as in Albania, Iran, China, the DPRK, Vietnam, Mongolia, Hungary and Slovakia are governed by the Agreement on Direct International Goods Transport by Rail and Procedure Instruction attached thereto (SMGS). SMGS and COTIF regulate the same issues, but the approach is fundamentally different.

The acceptance and shipment of goods on the whole route between countries governed by COTIF law and countries in which regulation is carried out by SMGS law are impossible both from the transport and legal point of view and from the positions of fulfillment of customs requirements.

Since it is not yet possible to unify legal norms, at joint meetings of representatives of the Central Institute of Transport and the Organization for Cooperation of Railways, it was decided to create a transportation document that would be recognized by all interested parties and contain all the necessary data for COTIF and for SMGS .

In addition, the International Railway Transport Committee, together with the Organization for Cooperation of Railways more than 10 years ago, developed a unified consignment note CIM / SMGS12, which is also recognized as a customs document. From September 1, 2006, it is used for cross-border rail freight and is available in electronic form, which is especially important in connection with the EU requirement of prior notification.

The use of a unified CIM / SMGS consignment note for transportation in China - European countries reduces the time for cargo delivery by rail and facilitates procedures at border crossings due to the fact that it is not necessary to reissue shipping documents from one transport right to another [3].

Compared to the EAEU and China, in the EU, the level of financial and time costs for exporters and importers, according to research by analysts of the World Bank, is much lower. The choice of Germany for estimating the costs of traders was due to two factors. First, Germany is the most important foreign trade partner of the EAEU among all EU countries. Secondly, Germany is the final destination of key land routes between China and the EU.

TABLE IV. COST STRUCTURE FOR EXPORT-IMPORT OPERATIONS IN GERMANY, 2018

Cost elements	Time expenditures, hours		Financial expenditures, dollar/container	
	Export	Import	Export	Import
Documentary compliance	1	1	45	0
Border compliance	36	0	345	0
Total	37	1	390	0

Source: World Bank reports. Doing Business: Understanding Regulations for Small and Medium-Size Enterprises. Economy profile: Germany (2019) [16]

In general, it can be concluded that at present time the customs and logistics infrastructure of Russia and the EAEU is significantly inferior in development to both China and the EU. The absence of a solution to this problem may lead to the loss of the opened “window of opportunities” for attracting additional transit flows and the emergence of new routes for international distribution bypassing Russian Federation.

#### IV. DISCUSSION

The need to develop international transport corridors and the active participation of the state in creating conditions for their improvement has been repeatedly asserted by researchers [13, 17]. At the same time, considerable attention has traditionally been paid to the problems of modernizing the existing transport and logistics infrastructure [6, 7, 11].

The problems of foreign economic activity management are studied in sufficient detail in the scientific works of various authors, with a separate study of customs services rendered by participants of foreign economic activities by customs authorities, and services provided by specialized intermediaries [18].

At the same time, there is still no comprehensive understanding of the processes of organizing the movement of international goods, combining issues of customs escort, the development of terminal cargo handling, embedding the existing logistics infrastructure in the international transport corridor and ensuring the attractiveness of this route for foreign companies using it as a transit route. and for domestic enterprises aimed at exporting their products.

#### V. CONCLUSION

The customs and logistics infrastructure of the international corridor should be designed in such a way that, on the one hand, to correspond to the scale of the logistics

processes of goods movement within a significant transit flow, and on the other hand, to reduce the costs associated with crossing customs borders, declaring goods and paying customs duties . The criterion for evaluating the performance of the transport corridor should be a comparison of the scale of global supply chains with the level of costs of domestic supply chains, which include Russian part of the East-West ITC. It will increase competitive advantages of Russian economy while ensuring trade and economic integration.

### Acknowledgment

The reported study was funded by RFBR and FRLC according to the research project № 19-510-23001.

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