

3. МАКРОЕКОНОМІЧНІ МЕХАНІЗМИ

DOI: <https://doi.org/10.32782/mer.2022.95-96.09>

UDC 339.9(477)

PECULIARITIES OF THE MODERN DEVELOPMENT OF INTERNATIONAL LOGISTICS IN UKRAINE

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The article is devoted to the study of international logistics. It systematizes the main types of logistics depending on the state border: domestic (national), international, global. The conceptual foundations of the development of transport highways, which became prerequisites for the emergence and effective functioning of eurologistics, are outlined. The features of activity of the logistics center of the Paris region and the essence of creation of "freight villages" in the Federal Republic of Germany are highlighted. The system of Pan-European transport corridors, some of which pass through the territory of Ukraine, is analyzed. The problems of the blockade of Ukrainian Black Sea ports by Russian troops, which makes it impossible to use them effectively, are outlined. The insufficient number and area of storage facilities in Ukraine before a full-scale war, much of which has already been destroyed or damaged as a result of hostilities, is highlighted. The introduced "transport visa-free" between the EU and Ukraine is a significant factor supporting the domestic economy in general and logistics in particular.

Keywords: logistics, Eurologistics, transport corridor, transport and logistics system, logistics and warehouse center.

JEL Classification: F02, F15, F51

Problem statement. The globalization of modern society does not go beyond the development of logistics. It has to respond dynamically and flexibly to changes in consumer attitudes and preferences, political and economic transformations in countries and regions. The openness of borders contributes to the increasing spread of international logistics. States that actively use their advantageous economic and geographic location at the intersection of transport corridors earn revenues for their budgets, create new jobs and strengthen their position among global trading partners.

Analysis of recent research and publications. Issues of logistics development are in the field of view of domestic and foreign researchers. O. Korniietskyi draws attention to the world experience of using logistics systems in the processes of international cooperation and globalization [1]. O. Avramenko examines the peculiarities of Ukraine's participation in the provision of transport and logistics services, analyzes the state of the country's transport and logistics market [2]. N. Raimbault highlights the expediency of the transition from regional planning to the development of urban logistics on the example of the Paris region of France [3]. A. Onstein, I. Bharadwaj focus on the typology of throughput capacities of modern logistics and warehouse centers [4], etc.

Highlighting the previously unresolved parts of the overall problem. In the author's opinion, when studying

the European experience of functioning of logistics centers not enough attention is paid to the development opportunities of the Ukrainian market of transport and logistics services, it is necessary to consider the factors of positive and negative impact on the current state of logistics in the country.

The formulation of the goals of the article (task setting). Among the main objectives of this study are systematization of types of logistics, consideration of the concepts of development of European transport corridors, analysis of the experience of logistics centers of individual states, identification of problems of functioning of transport and logistics centers in Ukraine during the war.

Presentation of the main research material. Logistics is one of the most dynamic components of the national and global economy. It is the basis that creates the prerequisites for further economic cooperation, meeting the needs of producers and consumers. In addition, logistics is one of the most sensitive areas of the economy and reacts quickly to political and economic instability as well as to changes in the preferences of end users. Depending on the need to cross state borders, there are intrastate (national), international and global logistics. National logistics implies the absence of crossing the state border, focusing on meeting the needs of the domestic market exclusively with the participation of domestic movement of goods and services. All participants use internal rules of record keeping, and their activities

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are regulated exclusively by national legislation. This type is the main one, but the world processes of globalization influence the active development of other types of logistics.

International logistics involves the coverage of logistics activities involving enterprises and organizations of at least two countries. It is clear that the number of participants in the logistics chain increases, if only because of the need to cross state borders, for example, the services of a customs broker [2]. Undoubtedly, the complexity of international logistics activities is higher, because it is necessary to coordinate the rules of documentation of several states, take into account the peculiarities of their national legislation, the number of participants in the logistics chain increases, the probability of force majeure increases, the duration of logistics operations increases, competition due to participants from partner countries increases.

Another type of logistics is global logistics, which is a sustainable form of macroeconomic logistics systems [5]. This is explained by the activities of TNCs and MNCs, their involvement in the world economy in general and the economy of individual states, in particular. Undoubtedly, the U.S. is the largest provider of transportation services, with exports of 80–90 billion U.S. dollars and imports of 90–100 billion U.S. dollars per year [2]. However, the U.S. is gradually losing its leadership, and logistics is actively developing in European countries.

With the emergence of a single European space, a separate type of logistics appeared – Eurologistics. It is based on the coordination of logistics systems and chains of EU countries. Eurologistics is based on the concepts of development of transport highways. According to the concept of European transport axes, reflected in the Declaration of the Committee of Ministers of Transport of the European Community in 1983, the development of high-speed railroads and inland waterways axes located in Belgium, the Netherlands, Luxembourg, France, Germany and Great Britain was envisaged [5].

The Paris region is one of the most important urban regions in the world and a logistics hub. Logistics in this region focuses on domestic retailing and redistribution to other regions in the context of wholesale and retail supply chains. The region is home to a large Charles de Gaulle airport and two major seaports, Le Havre and Antwerp. The River Port of Paris is a milestone in the transport connection between Le Havre and the market of Paris, playing the role of an inland port. In France, the main logistics center is Paris, but the city is not located on the main European transport corridors and is a relative periphery for the development of Eurologistics [3].

In Germany, the main mode of transport for the transportation of goods is road. In the state, the development of transport and storage infrastructure is a priority. For this purpose, so-called "freight villages" are created, to which goods are delivered by different modes of transport, and then reloaded as needed. The possibilities of the "freight village" can be used by several companies, making them coordinated components of one chain. In addition, the digitalization of logistics is being actively implemented.

For example, Hamburg is working on the implementation of 10 intelligent transportation systems. In 2016, the Federal Ministry of Transport and Digital Infrastructure of the Federal Republic of Germany established the Logistics Alliance Germany; an organization that helps find logistics services and partners for free, and since 2019, this organization has operated an online platform for logistics services [6].

The concept of pan-European transport corridors (Declaration of the II Pan-European Conference on Transport, 1994) allocates nine transport corridors in the form of a system of rail, road, waterways of Central and Eastern Europe, some of which pass through Ukraine [7] (Figure 1).

European transport corridors were further developed in the creation of transcontinental transport corridors in Asia and North America.

Another document regulating the activities of the "Wider Europe" transport and logistics system is the "White Book" of the EU – European transport policy until 2010 (2001). After the enlargement of the EU in 2004, the document "On the Guidelines for the Trans-European Transport Network" was adopted. There are currently five major transnational axes:

1. Sea routes: connect the regions of the Baltic, Barents, Mediterranean, Black, Caspian, Atlantic seas, access through the Suez Canal to the Red Sea.
2. Northern Axis: the northern EU states, Norway, Belarus, and the Russian Federation.
3. Central Axis: EU, Ukraine, Black Sea, Caucasus, Central Asia.
4. Southeast Axis: the EU, Turkey, the Caucasus, the Caspian Sea, Egypt and the Red Sea.
5. Southwest Axis: EU, Switzerland, Morocco, Algeria, Tunisia, Egypt [5].

However, the invasion by the Russian Federation on Ukrainian territory has jeopardized the security of the development of these transport and logistics axes and will be an incentive to revise them in the future.

According to the Rendel Institute (United Kingdom), Ukraine has the highest transit rate in Europe, but the use of the country's transport infrastructure potential is at a low level. Creation of new transport corridors, their connection to the functioning international transport system is a priority direction of transport logistics development in Ukraine. Ukraine is interested in active involvement in the functioning of international transport corridors and the European transport and logistics system.

In the transport and logistics system of Ukraine, freight transportation is dominated by rail, pipeline and road modes of transport. The share of water transport in freight transportation is steadily decreasing, while the share of air transport is increasing (Table 1).

Active hostilities will make adjustments to the statistics for 2022, as the sky over Ukraine is declared "closed" and a significant portion of roads are destroyed or damaged. In 2021, the share of the Russian Federation and Belarus in Ukrainian exports was 5% and 2%, respectively, and in



Figure 1 – Transport corridors of Europe

Source: [8]

Table 1 – Freight turnover by types of transport in Ukraine, mln tkm

Year \ Mode of transport	2016	2017	2018	2019	2020	2021
Railway	187557,5	191914,1	186344,1	181844,7	175587,1	180361,0
Road	37978,6	41459,5	42569,5	48906,3	42016,9	46808,1
Water	4003,7	4271,5	3363,0	3387,8	2877,3	2949,5
Pipeline	94378,8	105434,4	99239,9	104528,1	69281,8	59170,5
Air	117,0	275,3	339,7	295,6	316,2	346,3
Total	324145,0	343354,8	331856,2	338962,5	290079,3	289635,4

Source: compiled according to [9]

imports 8% and 7% [10]. At present, due to the severance of diplomatic and economic ties with the Russian Federation and Belarus, Ukraine is establishing transport and logistics

cooperation with EU countries, Great Britain and North American states. It is worth noting that logistics in this case has returned to its original interpretation, when the

term was used in military operations to provide army units: assistance of partner states in the anti-Russian coalition with military equipment, weapons, ammunition, etc. These supplies are dominated by rail and road transport, although the difference in gauge creates additional problems and costs. The blockade of Ukrainian ports by Russian troops, the bombing of grain warehouses, the disruption of existing European and Ukrainian transport and logistics chains due to anti-Russian sanctions have threatened grain trade not only in Ukraine, but also in the world at large. In the future, Ukraine will have to overcome the consequences of the mining of the Black Sea water area, the destruction of transport infrastructure, partial on the territory of the whole country, full – in the regions close to the front line. The peculiarity of warehouse logistics in Ukraine, even before the full-scale invasion of the Russian Federation, was the insufficient number of warehouses in the regions. Logistics and storage centers located in the capital region, such as in the settlements of Kalinivka of Vasylkivskiy district, Stoyanka, Brovary, in the Kharkiv region – Izyum, Balaklia, in the ports on the Black Sea coast suffered from the Russian occupation: goods were looted, warehouses were damaged, or completely destroyed. It is impossible to quickly assess the damage caused by the war at this stage due to the lack of necessary specialists, the constant threat of shelling, and the lack of information. In order to support Ukraine as a state and the Ukrainian economy, since June 29, 2022 between Ukraine and the EU began a system of "transport visa-free travel", which provides for the

abolition of the need to obtain permits for domestic carriers to bilateral or transit traffic through the EU, simplifying the recognition of driving documents [11]. This will be a significant support for the national economy; it will contribute to a more intensive involvement of Ukraine in the activities of transport and logistics corridors in Europe. Now Ukraine should work out a new program of transport and logistics development taking into account the future new world order, because it is already clear that the share of the Russian Federation in the economic cooperation between the two countries will be reduced to a minimum, and this niche should be occupied by cooperation with partner countries on mutually beneficial and equal terms for the recovery of our economy, the exit of the world and European economy from stagnation.

Conclusions. Depending on the crossing of the state border, there are internal (national), international and global logistics. The latter represents the presence of established and ramified macroeconomic systems. Eurologistics is a type of international logistics, which emerged after the creation of a common market of European countries and characterized by unified rules of doing business. Concepts of development of transport corridors are developed and effectively implemented in the EU, which contributes to the functioning of powerful transport and logistics centers. Some of the transport corridors pass through Ukraine, but the development of logistics centers is insufficient. Currently, this is further complicated by the destruction and damage caused by the war.

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ОСОБЛИВОСТІ СУЧАСНОГО РОЗВИТКУ МІЖНАРОДНОЇ ЛОГІСТИКИ В УКРАЇНІ

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Стаття присвячена дослідженню міжнародної логістики. Систематизовано основні види логістики в залежності від державного кордону: внутрішньодержавну (національну), яка здійснюється в межах національних кордонів однієї держави, міжнародну з залученням учасників хоча б з двох держав та перетином державного кордону, глобальну, яка являє собою злагоджену макроекономічну систему. Окреслено концептуальні основи розвитку транспортних магістралей, що стали передумовами для виникнення та ефективного функціонування єврологістики. Висвітлено особливості діяльності логістичного центру Паризького регіону, що є великим урбаністичним центром світу, проте знаходиться в транспортній периферії Європи, та сутність створення «вантажних сіл» як основи транспортно-складської інфраструктури логістики ФРН, що має на меті допомогти підібрати логістичні послуги та партнерів. Проаналізовано систему пан'європейських транспортних коридорів, частина з яких пролягає територією України. Розглянуто п'ять головних транснаціональних осей, реалізація яких ускладнена військовою агресією РФ в Україні. Використання потенціалу транспортної інфраструктури в Україні є низьким, необхідно створювати нові транспортні коридори, активно поєднуватися до роботи існуючої міжнародної транспортної системи. Досліджено роль окремих видів транспорту у вантажообігу України, зазначено домінування залізничних, автомобільних, водних перевезень. Авіаперевезення наразі є неможливими через «закрите» небо. Окреслено проблеми блокади російськими військами українських чорноморських портів, що унеможливує їх ефективне використання. Наразі основні вантажопотоки в Україні ввозяться автомобільним транспортом, залізницею. Висвітлено недостатню кількість та площ складських приміщень в Україні до початку повномасштабної війни, значна частина яких вже зруйновані чи зазнали пошкодження в результаті бойових дій. Запровадженій «транспортний безвіз» між ЄС та Україною є вагомим чинником підтримки вітчизняної економіки загалом та логістики, зокрема. Зазначено про необхідність перерозподілу частки вантажообігу з РФ і Білорусі на користь країн-партнерів по антиросійській коаліції.

Ключові слова: логістика, єврологістика, транспортний коридор, транспортно-логістична система, логістично-складський центр.

Стаття надійшла до редакції 29.07.2022

The article was received July 29, 2022

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