## Секція «МІЖНАРОДНЯ ТА НАЦІОНАЛЬНА ТРАНСПОРТНА ІНФРАСТРУКТУРА» ГОЛОВА СЕКЦІЇ – д.т.н., професор Лаврухін О.В.

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## THE INFLUENCE OF THE CONSTRUCTION OF THE EURORAIL ON ENSURING THE ECONOMIC SECURITY OF UKRAINE

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Economic security is a pivotal concern for any nation, especially during periods of conflict. Economic security is a state of the national economy that enables it to maintain resilience against internal and external threats, ensure high competitiveness in the global economic environment, and is characterized by the ability of the national economy to achieve sustainable and balanced growth [1].

In Ukraine, the ongoing armed conflict has underscored the critical importance of maintaining robust and efficient railway transport systems. Railway transport is the backbone of Ukraine's logistics and transportation network. It plays a significant role in the country's economy by enabling the efficient movement of bulk goods, including agricultural products, coal, steel, and other raw materials. Roads and highways are often more susceptible to damage and blockages due to military activities, making railways a more reliable mode of transport. The ability to transport large volumes of goods quickly and efficiently becomes critical in maintaining the supply chain, supporting military logistics, and ensuring that civilian needs are met.

Undoubtedly, the economic security of Ukraine during wartime depends on the efficiency of railway transport, including international routes.

Ukraine inherited an old track system that differs in size from the European standard. Ukrainian trains run on a "broad" gauge of 1520 mm, while at the border, they meet the "narrow" European gauge of 1435 mm. This discrepancy creates significant obstacles at the western borders, slowing down the speed at which domestic goods can be exported abroad and imported goods can enter the country. It also introduces discomfort in passenger transport. On May 24, 2022, Prime Minister Denys Shmyhal announced Ukraine's intention to switch to the European gauge standard. At first, the Eurorail will connect major railway junctions and major cities, and then the network will be gradually expanded throughout the country. The European Commission and the European Investment Bank have developed a strategy for the integration of railway networks of Ukraine, Moldova and the European Union. It was published on the website of the European Commission.

The need for the construction of a new 1435 mm gauge main network (Eurogauge) in Ukraine and Moldova has been determined, which will work in parallel with the current 1520 mm network based on two principles:

- the 1435 mm Eurogauge will be intended for high-speed transport (international passenger trains, Intercity, cargo transportation in containers/on platforms), while the 1520 mm gauge will serve slower transport (local and regional passenger trains, heavy goods);
- the development of the 1435 mm trunk network will be carried out in stages from west to east [2].

The proposed strategy defines three main stages:

- construction of a 1435 mm Euro track from the border with Poland (Mostyska) to Lviv and in Moldova from Chisinau to the border with Romania;
- construction of a 1435 mm Eurotrack between Lviv and Kyiv, creation of a second corridor in the north of Ukraine from Poland (Dorogusk) to Kyiv and connecting Lviv with Chop;
- continuation of the Eurotrack from Kyiv to the east to Kharkiv and Dnipro, as well as expansion of the network in the west and south of Ukraine: from Poland (Rava-Ruska) to Lviv, from Lviv to the border with Romania (via Ivano-Frankivsk and Chernivtsi), from Odessa to Chisinau.

The total cost of the three stages is about 11.5 billion euros: the first -700 million euros; the second -5.9 billion euros; the third -4.9 billion euros. In the future, it is possible to expand the 1435 mm railway network to such large Ukrainian cities as Zaporizhzhia, Kherson, Mykolaiv, Mariupol, Donetsk, Luhansk and Sevastopol (the last four are under temporary occupation).

Many scientific works, including articles, monographs and dissertations, are devoted to the study of the economic security of Ukraine, railway transport and enterprises of various industries, in which the essence of the economic security of Ukraine, railway transport and enterprises is defined, threats are revealed, and methods of assessing the economic security security level are developed, and the mechanisms of its provision are created [3 -8]. The development of railway transport infrastructure in the context of cross-border cooperation is disclosed in the monograph [9].

However, the possible influence of the construction of Eurorail in Ukraine on its economic security remains insufficiently researched.

Therefore, the *purpose of this publication* is to determine the possible positive and negative effects of the construction of the Eurorail in Ukraine on the economic security of the state.

The decision to build Eurorail (1435 mm gauge) in Ukraine presents a strategic move with substantial implications for the country's economic security, especially during wartime. There are both the potential positive and negative impacts of this infrastructure project on Ukraine's economic security amid ongoing armed conflict.

## **Positive Impacts**

Enhanced Trade and Economic Integration. One of the most significant benefits of adopting the 1435 mm gauge is the seamless integration with the European railway network. This facilitates more efficient trade with EU countries, allowing for faster and more cost-effective transportation of goods. Enhanced trade routes can increase export volumes and diversify trade partnerships, thus bolstering economic resilience in times of conflict.

Attraction of Foreign Investment. Modernizing Ukraine's railway infrastructure to the Eurorail standard can attract foreign investments. Investors from the EU and beyond are likely to see improved infrastructure as a sign of economic stability and growth potential. Increased investment can provide much-needed capital for economic activities, further strengthening economic security.

Improved Logistics and Supply Chains. Efficient railway systems are crucial for maintaining robust logistics and supply chains, especially during wartime. The adoption of Eurorail can reduce bottlenecks and improve the speed and reliability of transporting essential goods, including military supplies and humanitarian aid. This logistical efficiency is vital for sustaining economic activities and supporting wartime efforts.

Geopolitical Leverage. Aligning Ukraine's rail network with European standards enhances its geopolitical importance. This alignment can foster stronger ties with the EU, potentially leading to increased political and economic support. Such support is invaluable during wartime, providing Ukraine with strategic advantages and greater leverage in international negotiations.

## **Negative Impacts**

High Financial Costs. Constructing and maintaining Eurorail infrastructure requires significant financial investment. In wartime, when resources are already strained, allocating funds to such large-scale projects can divert money from other critical areas, such as defense and humanitarian aid. This financial burden can exacerbate economic vulnerabilities.

*Operational Disruptions*. Transitioning to a new gauge may cause temporary disruptions in the railway system, affecting trade and the movement of goods. During wartime, any disruption can have amplified negative effects, potentially hindering military logistics and the supply of essential goods. These operational challenges can weaken economic security.

Dependency on External Funding. Funding large infrastructure projects often requires loans or financial assistance from international bodies or other nations. This dependency can increase Ukraine's debt burden and create long-term economic liabilities. Moreover, reliance on external funding might come with conditions that could limit Ukraine's economic sovereignty.

Geopolitical Risks. While alignment with the EU presents opportunities, it also poses risks. Increased integration with European infrastructure may escalate tensions with neighboring countries opposed to Ukraine's EU alignment. These geopolitical tensions can lead to economic sanctions or other retaliatory measures, further complicating economic security during wartime.

Conclusion. The construction of Eurorail in Ukraine is a double-edged sword. On one hand, it offers substantial benefits, such as enhanced trade, foreign investment, improved logistics, and geopolitical leverage, all of which contribute positively to Ukraine's economic security. On the other hand, the project entails significant financial costs, potential operational disruptions, dependency on external funding, and geopolitical risks that can adversely impact economic stability.

To maximize the positive impacts while mitigating the negatives, it is crucial for Ukraine to adopt a balanced approach. This includes securing diversified funding sources, ensuring minimal disruption during the transition, and leveraging the geopolitical advantages without escalating conflicts. By carefully navigating these challenges, Ukraine can strengthen its economic security even amidst the adversities of wartime.

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