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КАТЕДРА „СТАТИСТИКА И ПРИЛОЖНА МАТЕМАТИКА“

КРЪГЛА МАСА
С МЕЖДУНАРОДНО УЧАСТИЕ

СТАТИСТИЧЕСКИ ИЗМЕРЕНИЯ НА РЕГИОНАЛНИТЕ РАЗЛИЧИЯ И НЕРАВЕНСТВА МЕЖДУ СЕВЕРНА И ЮЖНА БЪЛГАРИЯ

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С МЕЖДУНАРОДНО УЧАСТИЕ

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CROSS-BORDER TRADE OF UKRAINE AND THE VISEGRAD FOUR COUNTRIES

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Abstract: *The paper reveals the importance of cooperation between Ukraine and the Visegrad Four countries in the context of signing the Association Agreement between Ukraine and the EU. The key areas of cooperation between Ukraine and the Visegrad Four countries have been identified. Ukraine's cross-border trade flows to Poland, Czechia, Slovakia and Hungary are analysed. The sectoral directions of economic cooperation development within the framework of the Visegrad Four and in the context of bilateral economic cooperation of Ukraine with the V4 countries are assessed. Forms of cross-border cooperation between Ukraine and the Visegrad Four countries are described. The investment advantages of border areas are determined. Mutual benefits from cooperation between the Visegrad Group countries and Ukraine are substantiated.*

Key words: *cross-border trade, region, Visegrad Group, economic integration, Euroregion, investment.*

JEL: *F10, F13, F20, Q37, R11.*

Introduction. The intensification of integration processes in the world has increased the role of cross-border cooperation between regions. Cross-border cooperation is carried out through the development and implementation by regions of neighboring countries of joint programs in the field of economy, environment, social system, culture.

In the context of globalization and the development of integration processes, the geographical expansion of the European Union, new actors in the system of international relations (in particular regional associations) are becoming increasingly important. Ukraine has not only declared its intention to join the European Union, but has also identified as one of the priorities of its foreign policy course the increase of cooperation with the Visegrad Group countries, which are forming a new architecture of international relations with the help of EU tools. The issue of rethinking the key areas of cooperation between Ukraine and the Visegrad Four countries has been raised for a number of reasons, namely: the signing of the Association Agreement between Ukraine and the European Union, which allows moving from partnership and

cooperation to political association and economic integration; as well as due to the aggravation of Russian-Ukrainian relations due to Russia's annexation of Crimea, support for terrorist groups and separatist actions in Eastern Ukraine.

Section 1. Institutional backgrounds of the Ukraine-V4 cross-border cooperation

Today Visegrad Four is a powerful regional formation within the EU, which is structurally affect the process of European integration. Cooperation between B4 members is carried out through regular contacts and coordination of common positions on various issues, which are subsequently presented at EU forums.

The Visegrad Four and Ukraine attach great importance to the development of regional and cross-border cooperation. It is extremely economically advantageous, because it is primarily about the need to create proper border infrastructure, the development of profitable economic cooperation between border regions of Ukraine and neighboring countries, labor movement.

Cross-border cooperation between Ukraine and the Visegrad Group countries takes place in such forms as: activities of Euroregions; action of neighborhood programs; activities of international regional organizations and associations; interregional cooperation (agreements on cross-border cooperation).

One of the forms of cross-border cooperation of administrative-territorial units of neighboring states in the EU is cooperation within Euroregions in accordance with bilateral and multilateral agreements in order to solve common problems or solve identical problems through agreed mechanisms. Today in Ukraine there are several Euroregions, two of which are with the Visegrad Four countries: Bug (Ukraine, Poland, Belarus) and Carpathian Euroregion (Ukraine, Poland, Slovakia, Hungary, Romania). The creation of a Euroregion is cost-effective for the Visegrad Group.

A characteristic feature of cross-border trade is its focus on meeting local needs for the production of goods within the border area, as well as goods intended for consumption within the same territory. Revenue from cross-border trade largely remains in the border regions and is used to expand the range of consumer goods, purchase equipment, technologies, materials and raw materials for the development of the economy of these regions.

The main task of cross-border cooperation is to overcome the negative consequences of the fact that border areas are located far from the center of the country, which often makes them peripheral, negatively affects the

development of infrastructure, living standards. It should be noted that this type of problem occurs in all border areas, and cross-border cooperation provides an opportunity to reduce this negative effect by removing political and administrative barriers between neighboring countries, creating a common economic, social and cultural infrastructure. At the same time, the border areas have a number of investment advantages, including such as:

- insignificant transport costs within the country associated with the export of domestic goods to world markets;
- acceleration of processes related to the implementation of foreign experience in the field of economic, social and environmental development of the region;
- favorable prices for import of necessary goods from abroad;
- active cooperation with business entities of foreign countries, especially EU member states.

Section 2. Analysis of the Ukraine-V4 cross-border trade

In Figure 1 the dynamics of bilateral trade of Ukraine and V4 states is revealed (real data and prediction). The forecast is based on a long short-term memory model or LSTM constructed using yearly trade data (according to the Observatory of Economic Complexity, 2020). In general, there is positive trend for all cases. The largest gaps in dynamics were observed in 2008 (global financial crisis) and 2013-2014 (military crisis in Ukraine, annexation of Crimea and part of Donbas).

In 2018 Ukraine exported $3.2B to Poland. During the last 23 years the exports of Ukraine to Poland have increased at an annualized rate of 11.7%. The main products exported from Ukraine to Poland were iron ore ($381M), insulated wire ($343M), and hot-rolled iron ($210M). In 2018, Ukraine imported $5.28B from Poland. During the last 23 years the import from Poland to Ukraine have increased at an annualized rate of 9.1%. The main products exported from Poland to Ukraine were petroleum gas ($215M), insulated wire ($212M), and cars ($119M) (see Table 1). Poland is 4th leading Ukrainian trade partner both in export and import. Besides Poland became the main destination of Ukrainian labour flows during last years (Sokołowicz & Lishchynskyy, 2018).

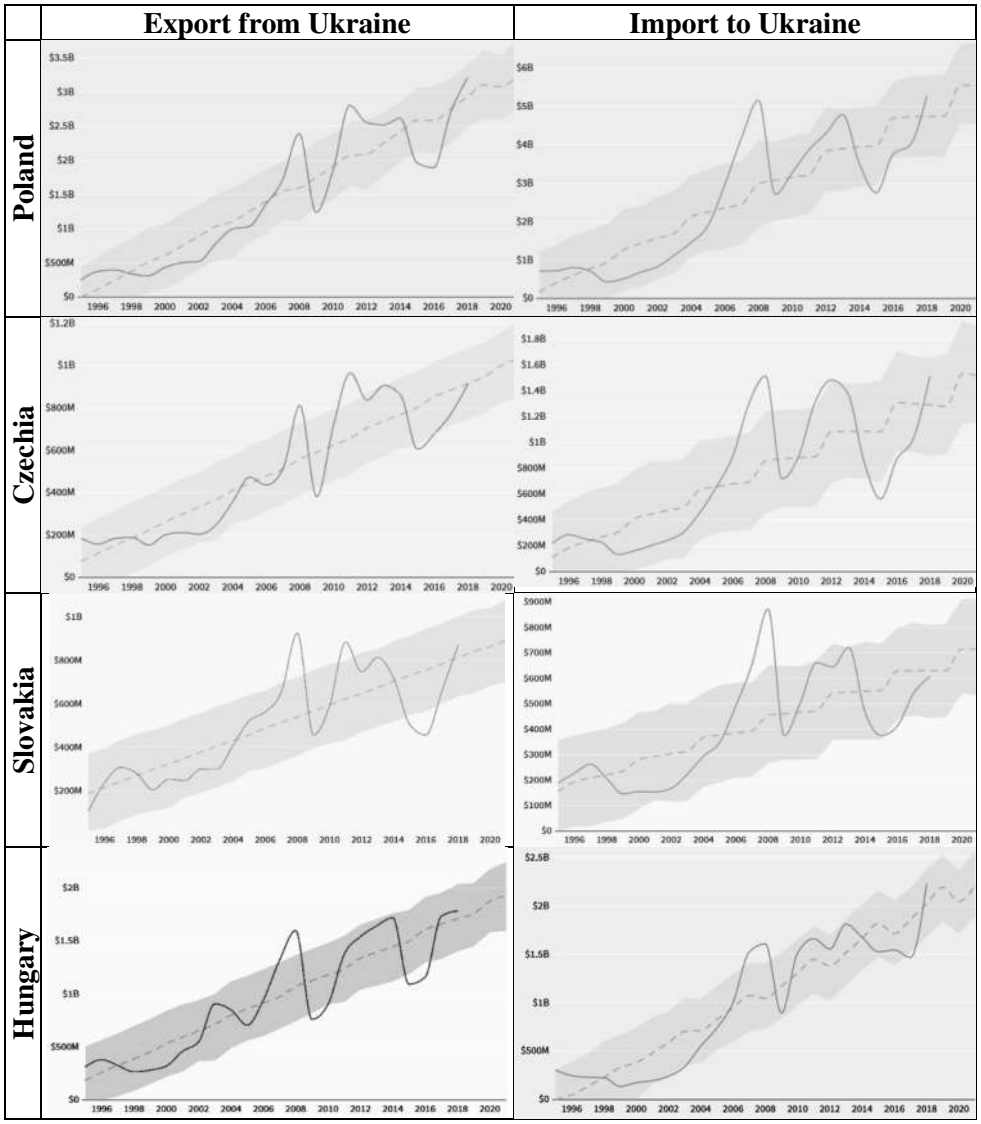

Fig 1. Main sectors of Ukrainian trade with V4 states
Source: The Observatory of Economic Complexity, 2020

In 2018 Ukraine exported $914M to Czechia. During the last 23 years the exports of Ukraine to Czechia have increased at an annualized rate of 7.22%. The main products exported from Ukraine to Czechia were iron ore ($310M), insulated wire ($183M), and hot-rolled iron ($36.6M). In 2018 Ukraine imported $1.51B from Czechia. During the last 23 years the imports from Czechia to Ukraine have increased at an annualized rate of 8.72%. The

main products exported from Czechia to Ukraine were broadcasting equipment ($225M), insulated wire ($108M), and petroleum gas ($86.2M).

Table 1

Main sectors of Ukrainian trade with V4 states

	Export from Ukraine	Import to Ukraine
Poland	***Total: $3.2B:*** • Iron Ore ($381M); • Insulated Wire ($343M); • Hot-Rolled Iron ($210M)	***Total: $5.28B:*** • Petroleum Gas ($215M), • Insulated Wire ($212M), • Cars ($119M).
Czechia	***Total: $914M:*** • Iron Ore ($310M); • Insulated Wire ($183M); • Hot-Rolled Iron ($36.6M).	***Total: $1.51B:*** • Broadcasting Equipment ($225M); • Insulated Wire ($108M); • Petroleum Gas ($86.2M).
Slovakia	***Total: $870M:*** • Iron Ore ($333M); • Insulated Wire ($147M); • Acyclic Hydrocarbons ($70.1M).	***Total: $607M:*** • Petroleum Gas ($79.4M); • Cars ($64.6M); • Coated Flat-Rolled Iron ($41.1M).
Hungary	***Total: $1.79B:*** • Electric Heaters ($261M); • Telephones ($251M); • Petroleum Gas ($195M).	***Total: $2.22B:*** • Petroleum Gas ($309M); • Insulated Wire ($261M); • Packaged Medicaments ($168M).

Source: The Observatory of Economic Complexity, 2020

In 2018 Ukraine exported $870M to Slovakia. During the last 23 years the exports of Ukraine to Slovakia have increased at an annualized rate of 9.49%. The main products exported from Ukraine to Slovakia were iron ore ($333M), insulated wire ($147M), and acyclic hydrocarbons ($70.1M). In 2018 Ukraine imported $607M from Slovakia. During the last 23 years the imports from Slovakia to Ukraine have increased at an annualized rate of 5.19%. The main products exported from Slovakia to Ukraine were petroleum gas ($79.4M), cars ($64.6M), and coated flat-rolled iron ($41.1M).

In 2018 Ukraine exported $1.79B to Hungary. During the last 23 years the exports of Ukraine to Hungary have increased at an annualized rate of 7.84%. The main products exported from Ukraine to Hungary were electric heaters ($261M), telephones ($251M), and petroleum gas ($195M). In 2018 Ukraine imported $2.22B from Hungary. During the last 23 years the imports from Hungary to Ukraine have increased at an annualized rate of 9.06%The main products exported from Hungary to Ukraine were petroleum gas ($309M), insulated wire ($261M), and packaged medicaments ($168M).

Conclusions

The cooperation of the Visegrad Group with Ukraine is quite profitable, as it will increase the market, the number of consumers of products and services; expand business connections; will promote the influx of cheap labor, skilled workers. But even for Ukraine, this cooperation brings a lot. Firstly, it is new investments and financial flows in various industries, secondly, bilateral development of tourism, thirdly, development of enterprises in the region, because due to small national markets in the Carpathian region the business environment must be modernized so that stimulate the development of local enterprises and attract foreign investors. Despite the creation of the internal market, there are still many practical difficulties in trading in goods and services, and there are formal barriers to cooperation. Thus, the joint activities of the Visegrad Group and Ukraine can bring great benefits to both the V4 countries and Ukraine in various fields.

LITERATURE

Sokołowicz M., Lishchynskyy I. (2018) Are Poland and Ukraine Gravity Centres for Each Other? Study on the Labour Migration Patterns. *Comparative Economic Research*, 21(1), 45–65. DOI: 10.2478/cer-2018-0003

Lishchynskyy, I., Lyzun, M., Kuryliak, V., & Yevhen, S. (2019). The Dynamics of European Periphery. *Management Theory and Studies for Rural Business and Infrastructure Development*, 41(4), 527-536.

The Observatory of Economic Complexity (2020). Retrieved 2020.10.01 from https://oec.world/en/profile/bilateral-country/ukr/partner/

State Statistics Service of Ukraine (2020). Retrieved 2020.10.01 from http://ukrstat.gov.ua/