





EXROCK fram Ukraing

Analysis of exports of goods transported by rail through land crossings in 2023

Ukraine

- Capital: Kyiv
- Territory: 603,549 sq. km.
- Population: 33.68 people (2024) *
- National currency: hryvnia
- GDP: \$186.26 billion *
- GDP per capita: \$5.53 thousand *
- GDP at purchasing power parity: \$501.07 billion *
- Unemployment rate: 10.6% (2024) *
- The total working-age population is 15.78 million people (as of Q4 2021)

*according to the IMF report (https://www.imf.org/external/datamapper/profile/UKR)
**According to the State Statistics Service of Ukraine (https://www.ukrstat.gov.ua)



Economy of Ukraine

The Ukrainian economy found itself in a situation where millions of people left the country, hundreds of thousands of able-bodied citizens were mobilized to the front, and tens of thousands of enterprises were forced to stop working.

At the moment, the Ukrainian economy is formed by:

- military-industrial complex (39.33%) *,
- construction (1.64%),
- service sector (15.79%),
- agriculture (12.53%)
- trade (11.82%)
- taxes (18.89%).

*The government of Ukraine began transferring domestic industry to a military footing: in 2023, the capacity of the domestic military-industrial complex increased 4 times compared to 2022, and in 2024 it will increase another 6 times.

According to a World Bank report, in 2023, every fifth company in Ukraine faced destruction, while 70% of businesses lost income; on average, the income of enterprises fell by half compared to 2021. The industry most affected by the war is metallurgy, which lost more than 60% of its capitalization.



Ukraine's balance of payments at the end of 2023 was positive, but this is due to external lending - \$42.5 billion was received from Western countries during the year, 25% of which was grant support. From February 2022 to November 2023, the allied states announced military, financial, and humanitarian aid worth 255 billion euros (data from the Kiel Institute), of which almost 100 billion was military aid.

The total aid amounted to about 85% of GDP annually. During 2022-2023, aid arrived rhythmically and on time. In fact, as of 12/15/2023, the state budget received \$70.6 billion of grant and credit aid. In general, Ukraine is experiencing "extremely high uncertainty" in the issue of funding.

The World Bank predicts a slight recovery for the Ukrainian economy after falling by more than 30% in 2022. GDP growth of 5% for 2023 is associated with significant state budget expenditures. However, the decline relative to the pre-war period remains significant - about 25%. Thanks to the sufficient flow

of international assistance, the timely implementation of a fixed exchange rate and foreign exchange restrictions, it was possible to maintain currency stability and even replenish foreign exchange reserves to a record level - more than 5 months of imports or almost 39 billion dollars. as of December 1, 2023.

However, the state of currency equilibrium remains unstable. The main risk is a gigantic negative trade balance – \$31 billion. based on the results of 10 months of 2023, primarily due to the growing needs of the economy for imports, the blocking of Ukrainian exports, and problems with the return of foreign currency earnings.



Foreign economic activity

Ukraine's trade turnover in 2023 amounted to \$99.4 billion, with a predominant advantage in the direction of imports: goods worth \$63.5 billion were imported into the country and \$36 billion were exported (a drop in exports of 18.7% reached a minimum in the last 20 years), According to the State Statistics Service, Ukraine had a smaller volume of exports only in 2005 – \$34.2 billion. *

*Until February 2022, Ukraine was considered an export-oriented country and received 50% of its GDP from exports.



Most goods were imported to Ukraine:

- China \$10.4 billion;
- Poland \$6.6 billion;
- Germany \$4.9 billion.

Ukraine exported the most to:

- Poland for \$4.7 billion
- Romania by \$3.7 billion;
- China by \$2.4 billion.

Two-thirds (65%) of 2023 imports were made up of the following categories:

- machinery, equipment, and transport \$19.8 billion;
- chemical industry products \$11 billion;
- fuel and energy products \$10.3 billion.

Most exported from Ukraine:

- food products \$21.8 billion;
- metals and products made from them \$3.9 billion;
- machinery, equipment, and transport \$2.9 billion;



The main export items were:

- grain crops 19.6% (↓ 2.1%);
- fats and oils 12.7% (↓2.5%);
- ferrous metals 9.2% (↓22.3%);
- seeds and fruits of oilseeds 8.3% (↓33.2%);
- ores, slags 7.1% (↓30.1%);
- electric machines 6.4% (↓35.0%);
- wood and wood products 5.3% (↓22.9%);
- food industry residues and waste 3.4% (55.8%).



Main import items:

- energy materials 20.4% (↑2.4%);
- means of land transport, except railway 11.3% (↑25.2%);
- nuclear reactors, boilers, machines 8.2% (↑38.1%);
- electric machines 5.0% (↑9.7%);
- plastics, polymer materials 4.8% (↑15.5%);
- pharmaceutical products 4.7% (↑20.0%);
- fertilizers 2.1% (↑62.4%);
- various chemical products 2.0% (↓2.5%).

The European Union is Ukraine's main trading partner. In 2023, the share of trade in goods

from the EU amounted to 56.0% of Ukraine's total trade volume, in 2022 this figure was at 55.2%.

According to State Statistics Service data, exports of goods from Ukraine in 2023 decreased by 18% compared to 2022 - to \$36.19 billion, while imports increased by 14.9% - to \$63.56 billion. As a result, Ukraine has a negative foreign trade balance of goods in 2023 increased 2.5 times - to \$27.38 billion (in 2022 the balance is also negative - \$11.16 billion).

The export-import coverage ratio was 0.57 (for 2022 – 0.80). Foreign trade operations were carried out with partners from 230 countries of the world.







Statistics on the movement of vehicles across the customs border of Ukraine

According to customs statistics on the movement of vehicles across the customs border of Ukraine, over the 12 months of 2023, 9.70 million units of vehicles were allowed across the border. Of these, 4.80 million units were exported. This figure for the same period of the previous period changed slightly - by 2.08% (in 2022 it was 4.70 million units).



Of the 9,714.80 thousand vehicles passed through the customs control of Ukraine, 1,3910 thousand were railway cars. In 2022, these figures were less by 2.6% in terms of all vehicles passed through customs, in the amount of 9,461.70 thousand, and more by 7.07% of railway cars passed through - 1,489.40 thousand units, respectively.

| Transport type | Unit | 2022 | 2023 | |
|----------------|---------------|----------|----------|--|
| Import | million units | 4.70 | 4.90 | |
| Export | million units | 4.70 | 4.80 | |
| Total | million units | 9.50 | 9.70 | |
| Sea transport | million units | 6.10 | 9.20 | |
| River | million units | 26.00 | 33.40 | |
| Railway | million units | 1 489.40 | 1 391.00 | |
| Automotive | million units | 7 879.10 | 8 232.40 | |
| Air | million units | 13.50 | 0.10 | |
| Other | million units | 47.50 | 48.70 | |
| Total | million units | 9 461.70 | 9 714.80 | |

Statistics on the movement of vehicles and goods along sections of the Ukrainian border

The movement of goods and vehicles to EU countries in 2023 accounted for 8.20 million units, 6.49% more than those transported in the same direction in 2022 - 7.70 million units.

Exports from Ukraine to the CIS countries have decreased noticeably over the past decade and amounted to 1.49 million units in 2023 in terms of transport vehicles passed through. This figure showed a decline of 15% as a result of the ongoing ban on trade with the Russian Federation and Belarus; in 2022 it amounted to 1.71 million units.

The volume of goods exported to the EU countries increased slightly, by 6.25%, and amounted to 64.13 million tons, while to the CIS countries, it fell more than twice and amounted to 5.81 million tons.

In 2022, 60.36 million tons of goods were transported to the European Union and 13.61 million tons to the CIS countries.



ТЕМПЕРИЛОДЖИСТИКСЕООД TEMPERI LOGISTICS LTD

Excert frem Ukraine

| Vehicles passed: | | | |
|--------------------|---------------|-------|-------|
| | | | |
| EU countries | million units | 7.70 | 8.20 |
| Poland | million units | 4.40 | 4.66 |
| Slovakia | million units | 0.92 | 0.92 |
| Hungary | million units | 1.06 | 1.00 |
| Romania | million units | 1.63 | 33.40 |
| CIS countries | million units | 1.71 | 1.49 |
| Russian Federation | million units | 0.15 | - |
| Belarus | million units | 0.13 | - |
| Moldova | million units | 1.43 | 1.49 |
| Passed products: | | | |
| EU countries | million tons | 60.36 | 64.13 |
| Poland | million tons | 3.19 | 32.52 |
| Slovakia | million tons | 15.04 | 15.18 |
| Hungary | million tons | 6.09 | 5.87 |
| Romania | million tons | 9.04 | 10.55 |
| CIS countries | million tons | 13.61 | 5.81 |
| Russian Federation | million tons | 3.03 | - |
| Belarus | million tons | 3.02 | - |
| Moldova | million tons | 7.55 | 5.81 |







Regional volumes of foreign trade in 2023*

In first place in terms of foreign trade volume in 2023 is the city of Kyiv, which accounts for a little more than a quarter of the total volume - 26.00%, half the volume of the Dnepropetrovsk region - 13.00%, almost 4 times less than the leader of the Lviv region regions – 7.10%, which account for more than half of foreign trade. The top three are followed by Kyiv (5.10%), Odesa (5.00%), Vinnytsia (4.70%), Poltava (4.00%), and Zaporizhzhia (4.00%) regions. About a third of the total volume (31.1%) is distributed among outsiders.

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|-----------------|------------|--------------|--------------|
| Регион | thsd. USD | in % to 2022 | in % to 2023 |
| Всего | 36 186 162 | 82.00 | 100.00 |
| Kyiv city | 9 401 107 | 89.90 | 26.00 |
| Dnipropetrovsk | 4 696 504 | 75.10 | 13.00 |
| Lviv | 2 552 476 | 84.400 | 7.10 |
| Kyiv | 1 837 547 | 87.70 | 5.10 |
| Odesa | 1 797 627 | 74.9 | 5.00 |
| Vinnytsya | 1 698 895 | 106.20 | 4.70 |
| Zaporizhzhya | 1 456 741 | 51.90 | 4.00 |
| Poltava | 1 433 240 | 76.80 | 4.00 |
| Zakarpattya | 1 359 227 | 69.00 | 3.80 |
| Cherkasy | 1 221 195 | 94.40 | 3.40 |
| Mykolayiv | 1 000 676 | 60.90 | 2.80 |
| Chernihiv | 893 217 | 124.50 | 2.50 |
| Volyn | 823 803 | 77.30 | 2.30 |
| Kirovohrad | 810 195 | 92.80 | 2.20 |
| Kharkiv | 778 032 | 88.40 | 2.20 |
| Khmelnytskiy | 777 888 | 99.70 | 2.10 |
| Sumy | 701 728 | 97.00 | 1.90 |
| Ternopil | 686 817 | 88.00 | 1.90 |
| Ivano-Frankivsk | 616 156 | 90.00 | 1.70 |
| Rivne | 594 571 | 79.90 | 1.60 |
| Zhytomyr | 531 143 | 74.00 | 1.50 |
| Donetsk | 199 439 | 70.20 | 0.60 |
| Chernivtsi | 193 684 | 67.60 | 0.50 |
| Kherson | 21 564 | 37.80 | 0.10 |
| Luhansk | 368 | 4.20 | 0.00 |
| | | | |

^{*} Data exclude the territories that are temporarily occupied by the Russian Federation and part of territories where the military actions are/were conducted.

Railway transport in the context of the transport system of Ukraine

The operational length of Ukrainian railways is 21.70 thousand km and ranks fourth in Europe and thirteenth in the world. In the transport system of the country, the railway occupies a leading place, being its main segment.



Until February 2022, 82.7% of total cargo transportation was carried out by rail, which is significantly higher than in the EU countries.



Joint Stock Company "Ukrainian Railway" is the largest employer in Ukraine and a leader in freight transportation, generating 1.5% of Ukraine's GDP and having 62% of the total volume of freight transport by all modes of transport.

The main goods transported by Ukrainian railways were coal, iron ore raw materials, construction materials, and mineral fertilizers. An important place was also occupied by various metals, oil cargo, and grain, which accounted for about a quarter of all transportation.

The most intense lines of cargo flows within the country were Kryvyi Rih - Dnepr, Krivoy Rog - Fastov - Lviv, as well as lines of seaports: Odesa, Chernomorsk, Yuzhny, Berdyansk, Mariupol, etc.

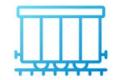
The Ukrainian railway borders and interacts with the railways of Russia, Belarus, Moldova, Poland, Romania, Slovakia, and Hungary and until 2022 provided work with 56 international railway crossings and 18 Ukrainian sea and river ports of the Azov-Black Sea basin.



Pic.1 Map of railways of Ukraine and neighboring countries

In 2022, 150.60 million tons of cargo were transported by rail, the drop in freight traffic was 52.10% compared to the pre-war year.

In 2023, 148.40 million tons of cargo were transported by rail in all types of communications - 1.5%, or 2.20 million tons less compared to 2022.



The drop in cargo transportation in 2022 was 52.1% - to 150.60 million tons annually compared to the pre-war 2021.

In total, in 2023, Ukrzaliznytsia transported an average of more than 12.00 million tons of cargo monthly. November 2023 was a record year when 14.10 million tons of cargo were transported by rail.

Nomenclature of cargo among leaders in terms of volume in 2023:



- grain cargo 30.60 million tons (+5.9%);
- mineral building materials 29.60 million tons (+29.6%);
- iron and manganese ore 27.50 million tons (-13.2%);
- hard coal 26.20 million tons (-11.2%);
- ferrous metals 8.20 million tons (-10.6%);

In 2023, for the first time, the European Union will allocate funds to develop the European integration railway infrastructure of Ukrainian Railways. The funds will be used for the reconstruction of old tracks and the construction of railway checkpoints with EU countries - Poland, Slovakia, Hungary, and Romania. Funding is provided under the Connecting Europe Facility (CEF) monetary instrument

After the opening of the Ukrainian sea corridor and ports in August 2023, it was possible to increase transportation for export. During the 5 months of operation of the corridor, the railway transported 8.80 million tons of cargo towards the Black Sea ports - 8.6% more than during the same period in 2022, when the grain corridor was operating.

In December 2023, there was a record unloading of 3.80 million tons for the Black Sea ports since the beginning of hostilities in 2022.

The railway increased traffic volumes in the direction of the Danube ports by almost 33%, including transit through Moldova and Romania.

In March-December 2022, the total volume of transportation was 102.00 million tons, in the same period in 2023 – 126.00 million tons, on average 23% more cargo per month.

In 2023, 22.30 million tons of all cargo were transported through seaports and 34.40 million tons through land crossings.

At the end of 2023, Ukrzaliznytsia JSC increased intermodal transportation by 34% compared to 2022 – up to 201.30 TEU. In 2022, there was a drop of 46%: if in 2021 the number of transported containers was 279.80 thousand TEU, then in 2022 - 150.10 thousand. At the same time, in 2023 there was a significant increase in the figure to 201.30 TEU. Of this volume, 62% was transported for export. The share of imports and domestic transportation was 19%.

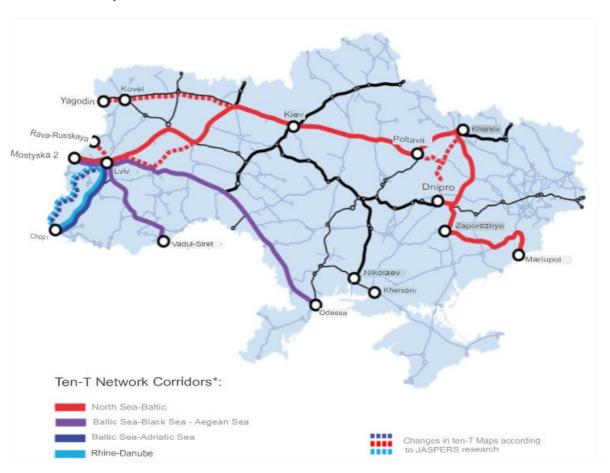
Ukraine increased exports by container transportation by 86% by rail.

Among the items that are most often transported in containers:

- grain (49%);
- ferrous metals (17%);
- oil (10%);
- cake (14%).

Currently, approximately 40% of freight transport by rail in Europe is carried out in containers, in Ukraine this figure reaches only 3%.

International transport corridors



Several international transport corridors pass through the territory of Ukraine: pan-European transport corridors No. 3, 5, 7, 9, Organization for Cooperation between Railways (OSJD) corridors No. 3, 4, 5, 7, 8, 10, Trans-European transport network (TEN-T), the Europe-Caucasus-Asia corridor (TRACECA).

The EU is creating the Trans-European Transport Network (TEN-T) to connect Europe from west to east and north to south with a network of roads, railways, airports, and waterways. The development of the transport system will take place in two stages: the construction of the key network should be completed by 2030, and the general network by 2050.

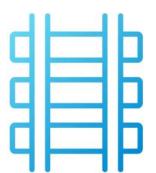
Ukraine joined TEN-T in 2017. According to the European Commission's Indicative Investment Plan for the Development of TEN-T Corridors, by 2030, projects worth a total of €4.45 billion are planned to be implemented in Ukraine - this is the largest figure among all EU Eastern Partnership countries.

It is planned to extend the network corridors into the territory of Ukraine and Moldova already in the first quarter of 2024, we are talking about almost 3,300 km of 1,435 mm standard railway tracks in Ukraine.

Continuation of four TEN-T corridors to the territory of Ukraine and Moldova: the North-Baltic corridor through Kyiv is extended to the Dnieper, as well as Kovel and Yagodin, and through Lviv to the Rava-Russkaya checkpoint; The Baltic Sea – Adriatic Sea and the Rhine – Danube corridors have been extended through Lviv to Chop. All four corridors will pass through the Lviv railway junction.

It is known that more than 90% of trade cargo is transported by sea, but we must not forget about the development of land modes of transport. Thus, the promotion of Chinese goods along the so-called New Silk Road overland from China to European countries will in the future be increasingly based on the development of railways. Initially, the transport route included the transcontinental railway - the Trans-Siberian Railway, which passed through Russia and the second Eurasian Continental Bridge, passing through Kazakhstan, but in 2022, due to the Russian invasion of Ukraine, freight traffic was rerouted to bypass Russia. However, operators are discussing a sharp drop in traffic on the New Silk Road.

Export of goods by railway transport of Ukraine



As of February 2024, Ukrzaliznytsia's transportation volumes lag behind pre-war levels by 15-20%.

In January - December 2023, Ukrzaliznytsia transported 148.40 million tons of cargo, of which the percentage distribution by direction was as follows:

- domestic transportation 57%,
- export 38%,
- import 5%.

Before the war, Ukraine exported more than 70% of its goods by sea: in 2021, 160 million tons of cargo worth \$47 billion were exported through ports out of total exports of \$68 billion. The remaining goods were exported by rail, road transport, and airplanes. Only 11% of goods were exported by railway.

Export rail transportation in 2023 showed a decrease by 5.8% or 3.44 million tons - to 56 million tons compared to 2022 and was distributed by month as follows:



- January 5.17 million tons (10.40 million tons in 2022),
- February 5.07 million tons (9.00 million tons),
- March 5.30 million tons (3.05 million tons),
- April 4.90 million tons (3.90 million tons),
- May 3.80 million tons (3.87 million tons),
- June 4.00 million tons (3.20 million tons),
- July 3.30 million tons (3.50 million tons),
- August –3.30 million tons (4.00 million tons),
- September 3.60 million tons (5.20 million tons),
- October 4.90 million tons (5.18 million tons),
- November 6.10 million tons (3.90 million tons),
- December 6.60 million tons (4.30 million tons).

This result was formed due to a decrease in export transportation of iron ore raw materials (2.44 million tons), ferrous metals (0.94 million tons), mineral building materials (0.91 million tons), nonferrous metal ores (0.37 million tons) and fertilizers (0.19 million tons).

In the overall structure of railway exports, grain cargo predominates - 40.6%.

More than 43% of exports by rail last year were cargo from companies in the mining and metallurgical complex: iron ore raw materials - 35.2% and ferrous metals - 8.1%.

In general, the volume of export shipments of iron ore in 2023 decreased by 11% - to 19.70 million tons, and ferrous metals - by 17.1%, to 4.54 million tons.

The volume of export transportation of grain cargo increased by 0.8% – to 22.70 million tons.

Railway customs crossings of Ukraine with neighboring countries

As of June 2023, there are 14 border railway crossings connecting Ukraine with five countries: **Poland, Slovakia, Hungary, Romania, and Moldova.**

Poland

There are crossings between Ukraine and Poland: Yagodin - Dorogusk, Izov - Grubeshev, Mostiska-2 - Medika, and Rawa-Russkaya - Wehrrata.

The border crossing **Yagodin-Dorogusk** provides the shortest transit to the ports of Lithuania, Latvia, and Estonia in the central, northern, and eastern parts of Ukraine along the common line Kyiv - Kovel - Yagodin - Dorogusk - Lublin - Bialystok - Elk - Motskawa -

Yagodin-Dorohusk Izov-Grubeszow Rava-Ruska-Verkhrata Mostyska - 2-Medika Uzhgorod-Matevtsy Sokiryany-Oknitsa Batevo-Epereshke Mogilev-Podilsky Velchynets Dvakovo -Vadul-Siret Halmeu Dornesti Chop-Chierna NAD Tisou (SL) Chop-Zahon (UGR) Basarabaska-Augustne Reni Giurgiulesti

Sheshtokai - Kaunas - Klaipeda. Further branches are possible to several large and small ports in Latvia and Estonia.

The border crossing **Izov - Grubeshev** is the second operating railway crossing in Volyn to the Slawkow freight station. This railroad is better known as the LHS ("Light Line"). Thanks to this, this transition is one of the most popular.

The border crossing **Rawa Russka - Werhrata** is convenient for goods sent in the direction of Krakow, Wroclaw, as well as to Germany and the Czech Republic.

Mostiska-2 – Medica. In 2022, the Lemtrans group, which includes Levada-Cargo, built the Mostiska cargo container terminal, capable of processing up to 5 million tons of various cargoes annually. In particular, it is possible to transship 60 thousand tons of grain per month.

The throughput of crossings per day is as follows::

- Yagodin Dorohusk 4 trains or 200 cars;
- Izow Grubeszow 12 trains or 600 cars;
- Rava-Russkaya Verkhrata 5 trains or 150 cars;
- Mostiska-2 Medika 6 trains or 306 cars.

Now Poland is the main destination for the export and import of products from and to Ukraine. The volume of rail transport in Poland at the end of 2023 decreased by 3.20% compared to 2022 to 230.00 million tons.

In general, in 2022, Polish railways processed 237.60 million tons of cargo: 12.40 million tons of cargo were shipped for export, 20.03 million tons of imported cargo were processed, 3.00 million tons were processed in transit, and 64.30 million tons were handled in domestic traffic. million tons. The largest share in the total transport volume in 2022 was accounted for by iron ore and other mining and metals industry products – 23.70%. Another 5.20% was occupied by metal products.

In 2022, 16.9 million tons of cargo were transported through railway border crossings between Ukraine and Poland, which is 4.5 million tons or 36.7% more than in 2021.

By 2025, it is planned to increase the number of border crossings with Poland by three: Khyrov - Starzhava - State Border, Rava-Russkaya - Grebennoye, Khyrev - Nizhankovichi - State Border.

Slovakia

The Ukrainian and Slovak railways are connected by two border crossings, in particular, Chop - Cierna nad Tisou and Uzhgorod - Matevtsy. At the same time, 90% of cargo is sent with ore cargo. In addition to traditional metallurgical cargo, the crossing can accept grain.

Through the Uzhgorod-Matevtsi crossing it is possible to enter Slovakia without rearranging the wheels, which is a quick solution to deliver cargo to Slovakia and, subsequently, to Austria.

Transition capacity:

- Chop Cierna nad Tisou 7 trains, 490 cars;
- Uzhgorod Matevtsy 10 trains, 500 cars.

Hungary

Given the ban on the export of grain cargo to several EU countries, shippers are now looking for other logistics ways to transport them. Crossings with Hungary have become leaders in the passage of grain. As of the beginning of June, an average of 73 cars per day were transferred through the Chop – Zahony junction. Rail Cargo Group launched intermodal transportation between Kyiv, Lviv, Budapest, and Vienna.

The neighboring junction Batevo - Epereshke is in demand. Through it, Ukrzaliznytsia transferred an average of 164 cars in early June, most of which were loaded with grain.

Bandwidth:

- Chop Zahony (broad gauge) 1 train, 30 cars;
- Batevo Epereshke 7 trains, 420 cars.

Romania

Between Ukraine and Romania, cargo delivery occurs at two junctions **Diakovo - Halmeu** and **Vadul Siret - Dornesti** - one of the most popular crossings for the transportation of Ukrainian agricultural products.

Their bandwidth:

- Vadul-Siret Dornesti 6 trains, 180 cars;
- Dyakovo Halmeu 4 trains, 120 cars.

At the beginning of 2023, Ukrzaliznytsia JSC announced the resumption of operation of the **Rakhiv-Valya-Visheuluy** and **Teresva-Kimpulung-Ia-Tisa** crossings, which will allow 6 pairs of freight trains to be sent daily.

During the war, Romania became the most important logistics hub for Ukrainian exports of grain and mining and metals industry products: compared to the pre-war level, Romanian merchandise imports increased by 2.2 times, and Ukrainian exports increased by 3.4 times, primarily due to agricultural products. At the same time, exports of Ukrainian mining and metals industry products to Romania decreased by 30.60% – to \$327.70 million. Despite this, Romania is an important market for the Ukrainian mining and metals industry, where, at the end of 2023, 7.60% of the total figure was exported in physical terms.

Compared to pre-war 2021, in 2023 Ukrainian exports increased 3.4 times - to 11.70 million tons in physical terms, in financial terms - 2.4 times, to \$3.80 billion.

Ukrainian exports of mining and metallurgical complexes to Romania are represented by many types of products. The most massive export item is iron ore, supplies of which at the end of 2023 amounted to almost 1.50 million tons worth \$154.00 million, as well as:

- wire rod increase by 63.40%, to 78.50 thousand tons;
- semi-finished steel products increase by 3.2 times, to 65.90 thousand tons;
- pipes increase by 66.40%, to 29.70 thousand tons.
- flat hot-rolled steel decreased by 74.50%, to 22.10 thousand tons;
- coated rolled products decrease by 70.60%, to 7.60 thousand tons;
- ferroalloys decrease by 56.30%, to 7.10 thousand tons;
- fittings (code 7214) decrease by 43.30%, to 18.20 thousand tons.

It must be remembered that most of this product is in transit.

Ukraine is seeking to improve railway connections with Moldova and Romania in the direction of Reni-Giurgiulesti-Galati and back. It is planned to increase the capacity of the Giurgiulesti-Galati checkpoint three times, reduce the time of movement of wagons between the Republic of Moldova, Ukraine, and Romania by 2 to 3 days, and reduce transport costs.

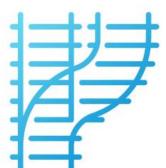
Moldova

There are several railway crossings between Ukraine and Moldova: through **the Sokiryany - Ocnita and Mogilev-Podolsky - Velchinets** crossings, cargo moves to Moldova from the stations of the regional branches of the South-Western Railway and Lviv Railway, through the restored Augustovo-1 - Basarabyaska crossing – from other regional branches: Dnieper Donetsk, Odessa and Southern railways to the ports of Reni, Galati, Giurgiulesti. As of June 2023, the operation of the crossings Slobodka - Kolbasnaya, Kuchurgan - Novosavitskaya, Kuchurgan - Livada has been suspended.



Since March 2023, the railway crossing "Avgustovskoe-1 - Basarabyaska" has been operating on the Berezine - Basarabyaska railway line. Their capacity:

- Sokiriane Ocnita 2 trains, 86 cars;
- Mogilev-Podolsky Velchynets 4 trains, 140 cars.
- Basarabyaska Avgustovskoe-1 3 trains, 150 cars, in the future 5 trains.



From 01/10/24 **The Kuchurgan-Novosavitskoye** crossing for railway communication began its work.

In general, the existing Ukrainian border railway crossings can transport 3,422 cars daily, which is about 220 thousand tons. However, due to the congestion of the junctions by only 50%, the volumes are significantly less. Ukrzaliznytsia transfers an average of 1,750 cars across all junctions. The highest figure for the last year was about 2000 wagons.

According to the Development Program for railway stations and Crossings bordering the countries of the European Union and the

Republic of Moldova for 2022-2025, it is planned to increase the number of border crossings from 14 to 19 to increase the transfer of wagons with cargo. In particular, there are plans to add border crossings with Poland: **Khyrev - Starzhava - State Border**, **Rava-Russkaya - Grebennoye**, **Khyrev - Nizhankovichi - State Border**. Two more crossings are planned to be opened for freight traffic to Romania: **Delovoe - Valea Visheului and Teresva - Kimpulung la Tisa**.

However, increasing the number of crossings will not solve the issue of the capacity of neighboring countries: theoretically, the current crossings can handle 80 million tons of cargo per year. However, even half of these volumes are difficult to transport - everything depends on the capacity of the European infrastructure. For example, Ukrainian cargo is sent to four ports in Poland, which process 8.30 million tons of grain per year. These figures are equivalent to the capacity of Ukrainian ports in just a month. Before the war, 120.00 million tons of cargo were exported through the sea harbors of Ukraine (grains 60-67 million tons, ores and coal from 31 to 42 million tons, oils 5-6 million tons).

As a solution, logistics chains for exports through railway border crossings to the ports of Lithuania (Klaipeda and Butinge), Latvia (Liepaja, Riga, Ventspils, Skulte, Mersgras, Salacgriva, Pavilosta, Roja, Jurmala and Engure) and Estonia (Tallinski, Muuga) should be considered).

Cargo transportation is carried out along three international routes that connect Lithuania and Ukraine through the border points of Mostyska - Medika, Yagodin - Dorogusk, and Izov - Grubeszow. These routes mainly transport oil and agricultural products.



EU initiatives to support Ukraine

To support Ukraine, the following initiatives are currently in place:

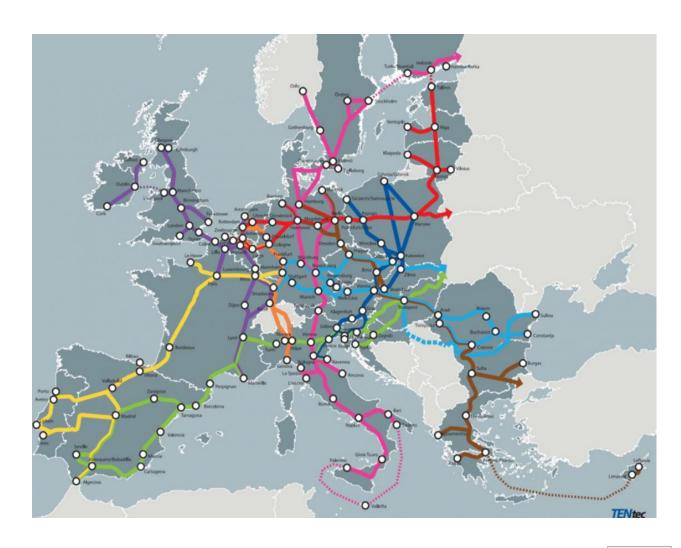
• trade liberalization measures to support Ukraine

At the beginning of March 2024, the European Parliament Committee on International Trade approved the continuation of trade liberalization measures to support Ukraine and extended the temporary suspension of import duties and quotas on the export of Ukrainian agricultural products to the EU for another year - from June 6, 2024, to June 5, 2025.

• expansion of the "Paths of Solidarity" initiative for Ukraine

In June 2023, Ukraine signed an agreement with the EU to participate in the CEF program, allowing it to participate in competitions for the development of transport infrastructure together with partners from EU member states with financial support from the EU. Now Ukraine has the opportunity to apply for financing of infrastructure projects related to the expansion of the main export routes of the "Road of Solidarity", without the need for the participation of other European Union countries, as well as to participate in a set of activities that include supporting checkpoints with technical means and updating trans-European maps transport network (TEN-T).

The Ukraine Reconstruction Agency is already involved in joint projects with Poland, Hungary, and Romania, within the framework of the CEF program, aimed at improving the capacity of checkpoints between Ukraine and EU member states.





Analysis of exports of goods transported by rail through land crossings in 2023

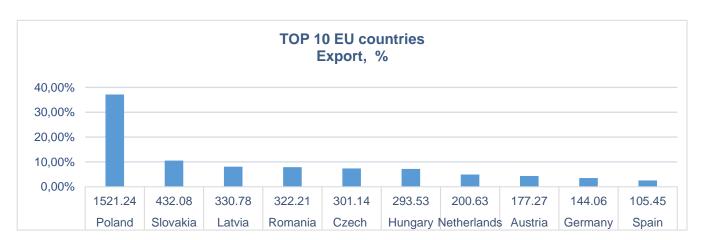
For 8 months of 2023, goods worth \$4,180.83 million were exported through land customs crossings of Ukraine by rail. The USA. The goods traveled to 84 of 247 partner countries, through 22 of 25 existing customs offices, and 32 of 59 railway customs checkpoints and control points in the country. Let's consider the largest export region in terms of volume, Ukraine—the European Union.

TOP - 10 EU countries, leaders in exports transported by rail for 8 months of 2023, (in USD)

Exports transported to the EU countries by rail amounted to about 98% or \$4,094.69 million. from all exports transported by this type of transport.

The largest volume - more than a third of the total volume exported to EU countries - came from Poland and amounted to \$1,521.24 million in kind. The top three exporters of Ukrainian goods included: Slovakia, which accounted for 10.55% and \$432.08 million in physical terms, and Latvia, which accounted for 8.08% and \$330.78 million, respectively. The rest of the TOP 10 positions were distributed as follows: Romania (7.87%), Czech Republic (7.35%), Hungary (7.17%), Netherlands (4.90%), Austria (4.33%), Germany (3.52%) and Spain (2.58%). Exports to other EU countries accounted for a total of 6.5% of the total volume, which amounted to \$266.31 million in physical terms.

| №п/п | EU countries | Export, mln USD | In % of total exports |
|------|----------------|-----------------|--------------------------|
| | Total | 4 094.69 | 100.00 |
| 1 | Poland | 1 521.24 | 24.54 |
| 2 | Slovakia | 432.08 | 22.87 |
| 3 | Latvia | 330.78 | 19.97 |
| 4 | Romania | 322.21 | 11.40 |
| 5 | Czech Republic | 301.14 | 6.14 |
| 6 | Hungary | 293.53 | 5.40 |
| 7 | Netherlands | 200.63 | 4.20 |
| 8 | Austria | 177.27 | 1.38 |
| 9 | Germany | 144.06 | 0.80 |
| 10 | Spain | 105.45 | 0.80 |

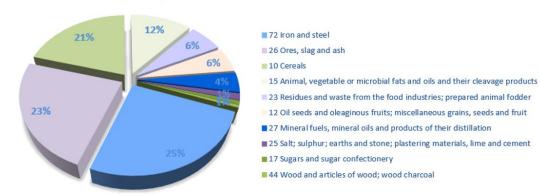


TOP - 10 exports of a group of goods for 8 months of 2023, transported by rail (in USD)

The largest volume is a quarter of the total volume of \$4,180.83 million, exported by rail for eight months of 2023, accounted for a group of goods 72 "Iron and steel" and amounted to \$1,025.89 million. USA in physical terms, a little less than a quarter - 22.87% accounted for 26 "Ores, slag and ash" and amounted to 956.35 million dollars, the third place and a fifth of the total volume of railway exports was occupied by the 10th group of goods "Cereals" with an amount of \$834.87 million. The remaining seven positions in the top 10 exports of goods accounted for about a third of the total volume transported by rail in the first 8 months of 2023.

| HS code | Product groups | Export, million. USD | In % of total exports |
|---------|--|-------------------------|-----------------------------|
| | Total | 4 180.83 | 100.00 |
| 72 | Iron and steel | 1 025.89 | 24.54 |
| 26 | Ores, slag and ash | 956.35 | 22.87 |
| 10 | Cereals | 834.87 | 19.97 |
| 15 | Animal, vegetable, or microbial fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes | 476.58 | 11.40 |
| 23 | Residues and waste from the food industries; prepared animal fodder | 256.85 | 6.14 |
| 12 | Oil seeds and oleaginous fruits; miscellaneous grains, seeds, and fruit; industrial or medicinal plants; straw and fodder | 225.59 | 5.40 |
| 27 | Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes | 175.51 | 4.20 |
| 25 | Salt; sulfur; earths and stone; plastering materials, lime, and cement | 57.77 | 1.38 |
| 17 | Sugars and sugar confectionery | 33.47 | 0.80 |
| 44 | Wood and articles of wood; wood charcoal | 24.50 | 0.59 |









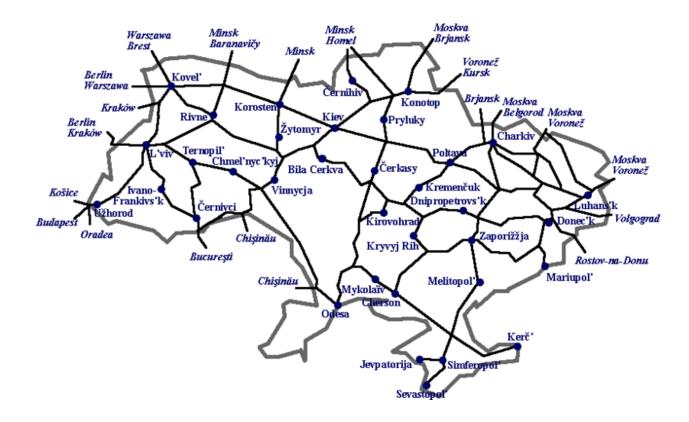
In 2023, exports through land railway crossings to neighboring countries were carried out through 22 Ukrainian customs offices out of 25 operating.

The leader in terms of the volume of this export was the Dnieper Customs, which accounted for more than a third of the volume or \$1,525.84 million in kind.

Poltava customs, which follows the leader, accounted for almost four times less - 8.63% and 353.43 million dollars. and Zaporizhzhia 7.75% and \$317.33 million respectively.

The top three accounted for 53.64%, the remaining 46.36% was distributed among 19 customs offices and amounted to \$1,898.09 million in kind.

| Nº | Customs | Export, mln USD | In % of total exports |
|----|-----------------|-----------------|--------------------------|
| | Total | 4 094.69 | 100.00 |
| 1 | Dneprovskaya | 1 525.84 | 37.26 |
| 2 | Poltavskaya | 353.43 | 8.63 |
| 3 | Zaporozhye | 317.33 | 7.75 |
| 4 | Energy | 217.36 | 5.31 |
| 5 | Transcarpathian | 211.95 | 5.18 |
| 6 | Zhytomyr | 153.08 | 3.74 |
| 7 | Volynskaya | 140.86 | 3.44 |
| 8 | Chernivtsi | 129,56 | 3.16 |
| 9 | Vinnytsia | 126.61 | 3.09 |
| 10 | Lvovskaya | 119.61 | 2.92 |
| 11 | Ternopil | 105.18 | 2.57 |
| 12 | Chernigovskaya | 100.73 | 2.46 |
| 13 | Kropyvnytskyi | 99.41 | 2.43 |
| 14 | Ivano-Frankivsk | 91.59 | 2.24 |
| 15 | Khmelnitskaya | 77.27 | 1.89 |
| 16 | Sumskaya | 70.27 | 1.72 |
| 17 | Kyiv | 69.89 | 1.71 |
| 18 | Cherkasy | 45.01 | 1.10 |
| 19 | Kharkovskaya | 30.80 | 0.75 |
| 20 | Nikolaevskaya | 29.89 | 0.73 |
| 21 | Donetsk | 28.86 | 0.70 |
| 22 | Rivne | 27.51 | 0.67 |
| | | | |



Let's consider the top three among the customs offices of Ukraine in the context of commodity items of the Criminal Code of Foreign Economic Activity for 8 months of 2023: **Dnieper, Poltava, and Zaporizhzhia customs.**

Dnieper customs



Half of the export volume (46.91%) of the Dnieper customs fell on commodity item 2601 "Ores and salivary concentrates, including vaporized pyrites" or \$715.75 million in kind.

More than a third was distributed between the group of goods 72 "Ferrous metals": 13.11% fell on the product heading 7201 "Wrought iron and mirror iron in ingots, ingots or other primary forms", 11.78% on 7207 "Semi-finished products of iron or non-alloy steel ", 10.42% for "Ferroalloys" and 3.63% for hot-rolled rods, loosely laid in bundles, made of iron or non-alloyed steel", which in total amounted to 38.93% and

\$593.98 million .in physical terms.

On the fifth position of the Dnipro customs house is product category 2701 "Coal, anthracite; briquettes, coils and similar types of solid fuel obtained from hard coal" with 5.30% and \$80.91 million in physical terms.

Rounding out the seven leaders are 2706 "Coal and lignite or peat resins and other mineral resins, dehydrated or non-dehydrated, and products of partial distillation, including "reduced" resins" with 2.81% and a volume of \$42.86 million.



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Export from Ukraine

| HS Code | Product item | Export, million USD | In % of total exports |
|-----------------|---|---------------------------|-----------------------------|
| Dnieper customs | Total | 1 525.81 | 100.00 |
| 2601 | Iron ores and concentrates; including roasted iron pyrites | 715.75 | 46.91 |
| 7201 | Pig iron and spiegeleisen in pigs, blocks, or other primary forms | 200.01 | 13.11 |
| 7207 | Iron or non-alloy steel; semi-finished products thereof | 179.70 | 11.78 |
| 7202 | Ferro-alloys | 158.93 | 10.42 |
| 2701 | Coal; briquettes, ovoids, and similar solid fuels manufactured from coal | 80.91 | 5.30 |
| 7213 | Iron or non-alloy steel; bars and rods, hot-rolled, in irregularly wound coils | 55.33 | 3.63 |
| 2706 | Coal gas, water gas, producer gas, and similar gases, other than petroleum gases and other gaseous hydrocarbons | 42.86 | 2.81 |

Top 7 countries export of goods exported through railway crossings by **Dnieper customs** in the above period:

| Nº | EU countries | Export, mln USD | In % of total exports |
|----|----------------|-----------------|--------------------------|
| | Total | 1 525.81 | 100.00 |
| 1 | Poland | 732.75 | 48.02 |
| 2 | Slovakia | 367.55 | 24.09 |
| 3 | Czech Republic | 185.25 | 12.14 |
| 4 | Romania | 78.24 | 5.13 |
| 5 | Hungary | 43.87 | 2.88 |
| 6 | Latvia | 20.58 | 1.35 |
| 7 | Bulgaria | 18.97 | 1.24 |

Poltavskaya



Two-thirds of the export volume (58.65%) of the Poltava Customs came to commodity item 2601 "Iron ores and concentrates, including burnt pyrite" or 207.27 million dollars in physical terms. Four times less of the volume of the leader fell on feed for animals and was distributed between the categories of goods 2304 "Cakes and other solid waste and residues obtained during the extraction of soybean oil, ground or not ground, not granulated or granulated" - 11.95% and 2306 "Cakes and other solid wastes and residues obtained

during the extraction of vegetable or microbial fats and oils, except wastes of commodity heading 2304 or 2305, whether or not ground, not granulated or granulated" - 3.83%. The third and fourth places were distributed between the group of fats and vegetable oils; 6.03% fell on the category of goods 1512 "Sunflower, safflower or cottonseed oils and their fractions, refined or unrefined, but without changing their chemical composition" and 4.66% - on 1507 "Soybean oil and its fractions, refined or unrefined, but without changing their chemical composition." 1701 "Sugar from sugar cane or sugar beets and chemically pure sucrose, in a solid-state" closes the top seven with 2.28%.





| HS Code | Product item | Export, million USD | In % of total exports |
|-------------|--|---------------------------|-----------------------------|
| Poltavskaya | Total | 353.43 | 100.00 |
| 2601 | Iron ores and concentrates; including roasted iron pyrites | 207.27 | 58.65 |
| 2304 | Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soya bean oil | 42.24 | 11.95 |
| 1005 | Maize (corn) | 25.11 | 7.11 |
| 1512 | Sunflower seed, safflower, or cotton-seed oil and their fractions; whether or not refined, but not chemically modified | 21.33 | 6.03 |
| 1507 | Soya-bean oil and its fractions; whether or not refined, but not chemically modified | 16.48 | 4.66 |
| 2306 | Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable or microbial fats or oils, other than those of heading 2304 or 2305 | 13.54 | 3.83 |
| 1701 | Cane or beet sugar and chemically pure sucrose, in solid form | 8.07 | 2.28 |

Top 7 countries - importers of goods exported through railway crossings by **Poltava customs** during the above period:

| Nº | EU countries | Export, mln USD | In % of total exports |
|----|----------------|-----------------|--------------------------|
| | Total | 353.43 | 100.00 |
| 1 | Austria | 146.16 | 41.36 |
| 2 | Czech Republic | 72.93 | 20.63 |
| 3 | Hungary | 51.95 | 14.70 |
| 4 | Poland | 45.52 | 12.88 |
| 5 | Romania | 18.21 | 5.15 |
| 6 | Moldova | 8.55 | 2.42 |
| 7 | Netherlands | 3.44 | 0.97 |

Zaporozhye



Almost the entire volume of exports (92.05% or \$292.08 million) of the Zaporizhzhia Customs fell to the group of goods 72 "Black metals" - commodity positions 7208 "Flat-rolled iron or non-alloy steel 600 mm wide or more, hot-rolled, uncoated, without galvanic or other coating" (48.57%), 7201 "Wrought iron and mirror iron in ingots, ingots or other primary forms" (28.63%), 7209 "Flat-rolled products of iron or nonalloy steel, width 600 mm or more, cold-rolled (cold-pressed), unplated, not electroplated or otherwise coated" (12.05%), 7202 "Ferroalloys" (1.01%), 7222 "Other bars

and rods of corrosion-resistant (stainless) steel; shaped corners and special profiles made of corrosion-resistant (stainless) steel" (0.86%).



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Export from Ukraine

| HS Code | Товарная позиция | Export, million USD | In % of total exports |
|------------|---|---------------------------|-----------------------------|
| Zaporozhye | Total | 317.33 | 100.00 |
| 7208 | Iron or non-alloy steel; flat-rolled products of a width of 600mm or more, hot-rolled, not clad, plated, or coated | 154.14 | 48.57 |
| 7201 | Pig iron and spiegeleisen in pigs, blocks, or other primary forms | 90.86 | 28.63 |
| 7209 | Iron or non-alloy steel; flat-rolled products, width 600mm or more, cold-rolled (cold-reduced), not clad, plated, or coated | 38.25 | 12.05 |
| 1512 | Sunflower seed, safflower, or cotton-seed oil and their fractions; whether or not refined, but not chemically modified | 18.08 | 5.70 |
| 7202 | Ferro-alloys | 3.50 | 1.10 |
| 7222 | Stainless steel bars and rods, angles, shapes, and sections | 2.74 | 0.86 |

Top 7 countries - importers of goods exported through railway crossings by **Zaporizhzhia customs** during the above period:

| Nº | EU countries | Export, mln USD | In % of total exports |
|----|-----------------|-----------------|--------------------------|
| | Total | 317.33 | 100.00 |
| 1 | Poland | 169.01 | 53.26 |
| 2 | Spain | 74.66 | 23.53 |
| 3 | The Netherlands | 18.08 | 5.70 |
| 4 | Moldova | 10.54 | 3.32 |
| 5 | Portugal | 10.53 | 3.32 |
| 6 | Romania | 10.38 | 3.27 |
| 7 | Slovakia | 5.21 | 1.64 |



Analysis of exports by rail to neighboring countries in the context of customs posts of Ukraine (for 8 months of 2023)

As mentioned above, in Ukraine in 2023 there were export shipments through 22 of the 25 existing customs offices and 32 of the country's 59 customs checkpoints.

For a narrower analysis in the context of railway customs checkpoints, there is currently no sufficient open data on the website of the State Border Service of Ukraine.

Based on the available data, let us analyze the statistics of railway traffic through the border checkpoint **No. 5 Yahodyn/Divisions No. 5, Customs Post "Yahodyn"**, related to the Volyn customs and located in the Volyn region 8 km from the border of Ukraine and Poland, which has international status, on the adjacent territory there is a checkpoint Dorohusk.

Station "Yagodin" is located in the village. Rymachi, Volyn region, is a border loading and passenger railway station, which belongs to the Rivne Directorate of Railway Transportation (Lviv Railway).

The Yagodin station was built in 1907, on the existing Kovel-Kholm railway line, which was opened in 1877. In 1995, a special point appeared on the territory of the station for rearranging wheelsets from 1435 to 1524 and vice versa.

Border and customs control, as well as the replacement of wheel sets, lasts about two hours. The Yagodin customs office is located at the Yagodin station.

The daily throughput capacity of the **Yagodin – Dorohusk** railway border crossing is 4 trains or 200 wagons.



Over the 8 months of 2023, 60 thousand tons of cargo worth \$6.54 million were transported through this checkpoint. This is 4.64% of the total volume of goods exported through Volyn customs by rail and about 0.16% of the total volume of goods exported by Ukraine through railway checkpoints during the specified period.

Yes, at this crossing there are problems of limited track capabilities related to the fact that more than 10 Polish carriers operate at this border station, and on the Ukrainian side there is only one - Ukrzaliznytsia, and it is difficult for it to dose the cargo flow for a large

number of recipients in the context of different nomenclature. Polish infrastructure is not ready to handle the volume of cargo coming from Ukraine.

This is reflected in the numbers:

for 8 months of 2023, with a capacity of 200 wagons, crossed the border per day:
 60,000 tons / 8 months = 7,500 tons / 30 days = 250 tons, or in round numbers 4 wagons.

Thus, the transfer of cargo amounted to 2% of the maximum throughput of the station.



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Export from Ukraine

About half of the goods went to Spain (44.04%), more than a third (37.19%) to Poland, the remaining fifth to Lithuania (13.53%) and Germany (5.23%).

| Nº | EU countries | Export, mln USD | In % of total exports |
|----|--------------|-----------------|--------------------------|
| | Total | 6.54 | 100.00 |
| 1 | Spain | 2.88 | 44.04 |
| 2 | Poland | 2.43 | 37.19 |
| 3 | Lithuania | 0.89 | 13.53 |
| 4 | Germany | 0.34 | 5.23 |

Half of the export volume (51.21% or \$3.35 million) of **Divisions No. 5, Customs Post** "**Yahodyn**" was for the 25th group of goods "Salt; sulfur; earth and stones; plastering materials, lime, and cement" and was distributed between product headings: 2508 "Other clays (except expanded clays of product heading 6806), andalusite, kyanite, and sillimanite, whether or not calcined; mulit; fireclay or dynamite earth" (50.79% or \$3.32 million) and 2517 "Pebbles, gravel, crushed stone or crushed stones" (0.41% or \$0.03 million).

Less than half of the volume (42.49% or \$2.78 million) went to the group of goods 10 "Cereal crops" and was distributed among the positions: 1001 "Wheat and a mixture of wheat and rye (meslin)" (19.69% or \$1, 29 million), 1205 "Rapeseed or rapeseed, crushed or not crushed" (13.53% or 0.88 million dollars), 1005 "Corn" (5.23% or \$0.34 million) and 1003 "Barley "(4.03% or 0.26 million dollars). 6.31% or \$0.41 million was accounted for by item 0713 "Legumes, dried, shelled, shelled or unseeded, ground or ground" of the group of goods "07 Vegetables and some edible roots and tubers".

| HS Code | Product item | Export, million USD | In % of total exports |
|--|---|---------------------------|-----------------------------|
| Divisions No 5, Customs Post "Yahodyn" | Total | 6.54 | 100.00 |
| 2508 | Clays; (not including expanded clays of heading no. 6806), andalusite kyanite and sillimanite, whether or not calcined; mullite; chamotte or dinas earth | 3.32 | 50.79 |
| 1001 | Wheat and meslin | 1.29 | 19.69 |
| 1205 | Rape or colza seeds; whether or not broken | 0.88 | 13.53 |
| 0713 | Vegetables, leguminous; shelled, whether or not skinned or split, dried | 0.41 | 6.31 |
| 1005 | Maize (corn) | 0.34 | 5.23 |
| 1003 | Barley | 0.26 | 4.03 |
| 2517 | Pebbles, gravel, crushed stone for concrete aggregates for road or railway ballast, shingle or flint; macadam of slag, dross, etc tarred granules, chippings, powder of stones of heading no. 2515 and 2516 | 0.03 | 0.41 |

Above, we analyzed the export of commodity items of groups of goods in physical terms; let us consider the volumes of goods that passed through Divisions No. 5, Customs Post "Yahodyn" in quantitative terms.

The majority - three quarters or 77.76% and 46.64 thousand tons of the total volume of 59.97 thousand tons, fell on product item 2508 "Clays; (not including expanded clays of heading no. 6806), andalusite kyanite and sillimanite, whether or not calcined; mullite; chamotte or dinas earth." Far behind, in second position in terms of tonnage, is commodity item 1001 "Wheat and meslin" with 5.21 thousand tons and 8.69% of the total export volume that passed through the customs checkpoint in question. The remaining five positions were distributed in approximately equal shares and amounted to less than 15% of the considered export volume.

| HS Code | Product item | Export, million USD | In % of total exports |
|--|---|---------------------------|-----------------------------|
| Divisions No 5, Customs Post "Yahodyn" | Total | 59.97 | 100.00 |
| 2508 | Clays; (not including expanded clays of heading no. 6806), andalusite kyanite and sillimanite, whether or not calcined; mullite; chamotte or dinas earth | 46.64 | 77.76% |
| 1001 | Wheat and meslin | 5.21 | 8.69% |
| 1005 | Maize (corn) | 1.95 | 3.26% |
| 1205 | Rape or colza seeds; whether or not broken | 1.92 | 3.21% |
| 2517 | Pebbles, gravel, crushed stone for concrete aggregates for road or railway ballast, shingle or flint; macadam of slag, dross, etc tarred granules, chippings, powder of stones of heading no. 2515 and 2516 | 1.66 | 2.77% |
| 1003 | Barley | 1.34 | 2.23% |
| 0713 | Vegetables, leguminous; shelled, whether or not skinned or split, dried | 1.25 | 2.08% |







Let us consider the most important segment of exports transported in the reporting period by rail in Ukraine, namely the export of grain products.

Export of agricultural products

Agricultural exports during the war accounted for more than half of the total exports of goods from Ukraine.

Despite blocking its borders for the transport of goods, Ukraine last year ranked third among the largest suppliers of agricultural products to the EU, according to a report by the European Commission.

From March 2022 to December 2023, 36 million tons of agricultural products were exported by rail through land logistics hubs, which served as alternative export routes after the blocking of Ukrainian seaports.



In total, in 2023, 30.58 million tons of grain cargo were transported by rail in Ukraine, the 2023 figure is almost 1.709 thousand tons higher than the volume of grain cargo transported by rail a year earlier.

In export traffic, 22.729 million tons of grain were transported by rail last year, out of 43 million tons of the country's total grain exports, 178 thousand tons more than in 2022, incl. in the direction of ports - 14.324 million tons (-4.9%); to western border crossings - 8.405 million tons (+12.2%). Before the embargo on the import of Ukrainian grain with

neighboring countries was introduced in April, 0.9-1 million tons of grain were transported by rail per month. After the ban was introduced, the volume was halved.

The easiest way now is to transport grain by rail through Romania and Slovakia, the hardest thing is through Poland. There are problems with the supply of rolling stock from the EU and the blocking of borders by Polish strikers.

In 2023, 10 million tons of agricultural products were exported by rail, 3.2 million tons by cars, and 47 million tons by seaports.

In January 2024, 685 thousand tons of agricultural products were exported by rail, 140 thousand tons by cars, and 5.5 million tons by seaports. Most of all, corn, wheat, rapeseed, and vegetable meal were transported across the western borders.



Now the cost of rail transportation in the EU has increased from 30-35 euros/t to 70-75 euros/t, but it will decrease against the backdrop of stable operation of seaports and balanced shipments towards the borders. Then border terminals will become trading points where the demand of European buyers will be determined.

The structure of exporters in 2022/23 has changed compared to previous years because a significant share - 45% of Ukrainian grain went through alternative routes, and only 55% through deep-sea ports. Grain exports from Ukraine last season amounted to 49 million tons, which is 1 million tons more than a year earlier.

The ten largest grain exporters look like this:

- Kernel share in exports 8%;
- Louis Dreyfus 7%;
- Cargill 5%;
- «NIBULON» 5%;
- ADM 5%;
- «Agroprosperis» 4%;
- Cofco 3%;
- Viterra 3%;
- UkrLandFarming 2%;
- «Olam Ukraine» 1%.

TOP 10 countries importing Ukrainian agricultural products for 9 months of 2023:

- China 11.4% (\$2.27 billion)
- Netherlands 5.8% (\$1.15 billion)
- Egypt 5.4% (\$1.09 billion)
- Poland 5.4% (\$1.08 billion)
- India 5.3% (\$1.06 billion)
- Türkiye 4.8% (\$965 million)
- Spain 4.2% (\$841 million)
- Germany 3.7% (\$734 million)
- Italy 3.3% (\$664 million)
- Indonesia 2.5% (\$503 million).



Over the three quarters of 2023, Ukraine exported agricultural products worth \$15.5 billion, which is almost the same as last year (\$15.65 billion).

Over the past two years, about 30 companies have received permission to create railway infrastructure near the border for the construction of transshipment terminals and have already opened 7 points, and another 12 are being completed.

Almost all railway lines in the EU have 2-3, and sometimes 4 terminals, 70% of which were built after February 2022.

Today, due to the prospects of unprofitable logistics costs in the future, many large agricultural industrialists have refused to invest in border infrastructure, expecting that with an increase in the volume of rolling stock in Ukraine, rail transportation to ports will become cheaper and only near the western border to companies for those operating in the 150 km zone it will be profitable to export products through land customs crossings, and for other regions it will be more profitable to transport grain to seaports.

However, to be able to diversify supply chains, it is necessary to develop dry ports, infrastructure, and the capacity of railway junctions.

According to Ukrzaliznytsia, there are now 16 terminals operating in Ukraine, allowing the transshipment of 1,186 wagons of grain per day.

There are 13 logistics hubs near the borders with Ukraine in Poland, 9 in Romania, 11 in Hungary, 7 in Slovakia, and in total there are 56 terminals where grain cargo is transshipped.



Conclusions and forecasts

In general, the main economic risks of last year will remain in 2024:

- Consequences of the war and an additional reduction in the country's production potential
 with the loss of labor resources.
- Decrease in the volume of international support for Ukraine.
- Blocking of transport routes for export and import.
- Risks of man-made accidents and infrastructure destruction
- Exacerbation of protest sentiments in society due to the high level of unemployment, difficulties in finding sufficient means of subsistence, and the psychological breakdown of a significant number of people as a result of martial law.

To reduce economic risks, the following steps in the economy are proposed:

Government incentives

A clear economic model for business, government investment in priority critical projects, and financing of a large-scale defense order is needed.

Access to markets

Unimpeded functioning of international logistics routes and product sales channels, creation of conditions for duty-free trade in the markets of partner countries, adoption of clear plans for government orders, and public procurement.

Access to labor resources, access to financing.

Training and retraining of personnel, measures to change tax instruments for stimulating investment, state grant support and expansion of credit and guarantee programs for the restoration and development of business, and introduction of a state system of insurance of investments against war risks.

It is believed that today the number of land customs crossings between Ukraine and European countries is sufficient. In the future, their number will need to be increased, which will make it possible to develop border and track infrastructure, expand and build new terminals, make large capital investments, and be able to "switch" logistics flows and diversify risks.

