FEDERATION OF EMPLOYERS OF UKRAINE

State Scientific Research Institut for Informatization and Economic Modeling

CMD UKRAINE Center for Market Economy Development

Danish Industry

MINISTRY OF FOREIGN AFFAIRS OF DENMARK

STRATEGIC GUIDELINES FOR DEEPENING TRADE AND ECONOMIC RELATIONS BETWEEN UKRAINE AND EUROPEAN UNION COUNTRIES

Amid Ukraine's Official Candidacy for EU Membership



Negotiating position of the Ukrainian business

KYIV – 2025





YULIA SVYRYDENKO

FIRST DEPUTY PRIME MINISTER OF UKRAINE – MINISTER OF ECONOMY OF UKRAINE

«The strategic development of Ukraine's economy in the context of EU membership requires not only the modernization of existing sectors, but also the creation of new production capacities. Mutually beneficial cooperation with the EU will provide Ukraine with an opportunity to build up its non-raw material exports, while contributing to technological progress and job creation. On the other hand, a self-sufficient Ukrainian economy means strengthening of European strategic autonomy and is an opportunity for the EU to cut down its dependence on supplies from undesirable countries and excessively long logistics chains.»



OLHA STEFANISHYNA

DEPUTY PRIME MINISTER FOR EUROPEAN AND EURO-ATLANTIC INTEGRATION OF UKRAINE – MINISTER OF JUSTICE OF UKRAINE

«Ukraine's EU membership unlocks new opportunities for the EU's strategic autonomy, particularly through joint investment projects that will strengthen economic cooperation and reduce reliance on unstable suppliers. Collaborative production, the removal of barriers, and the development of a unified and balanced foreign policy are crucial steps in this direction. The primary task is to unite the efforts of all parties to ensure Ukraine's successful accession to the EU.»



ERIK REINERT

HONORARY PROFESSOR AT THE INSTITUTE FOR INNOVATION AND PUBLIC PURPOSE (IIPP) AT THE UNIVERSITY COLLEGE LONDON (UCL), HEAD OF THE CMD-UKRAINE SUPERVISORY BOARD

«I would like to highlight the significance of this research conducted by CMD-Ukraine, the Center for Market Economy, a pro-industrial think tank where I have the honor of chairing the supervisory board. This think tank has demonstrated that Ukraine holds immense potential for economic growth within the context of its prospective EU membership—a process that can be mutually beneficial for both Ukraine and the EU. Ukraine can actively establish new factories, modernize its industries, process raw materials, and create jobs, fostering significant economic growth. At the same time, the EU stands to gain a reliable supplier of not only raw materials but also finished goods—ranging from agricultural products to critical materials and machinery—based on the principles of import substitution, thereby reducing dependency on less reliable suppliers.

Importantly, Ukraine's technological development will benefit from access to EU technologies and equipment, stimulating additional production and the export of high-tech products from Europe. This collaborative pathway offers significant opportunities for both parties. The EU will gain a stable partner capable of ensuring strategic autonomy, food security, and reduced dependence on geopolitically risky suppliers. Meanwhile, such cooperation will lead to the modernization of Ukraine's production capabilities and the growth of its economy.

It is also worth noting that this support will help Ukraine become a successful EU member in the future, significantly reducing its reliance on subsidies and grants, as Ukraine will transition from being merely a consumer to becoming an essential producer and supplier for the European market. The EU should support industrial development in Ukraine, as this assistance aligns with its own interests. Strategic support for Ukraine in establishing a shared foreign policy, modernizing industries, and fostering economic growth will strengthen not only Ukraine's economy but also Europe's overall position, ensuring its autonomy and resilience in global markets.»



RUSLAN ILLICHOV

DIRECTOR GENERAL OF THE FEDERATION OF EMPLOYERS OF UKRAINE

«Ukraine's EU membership is a mutually beneficial process for both parties. The authorities of Ukraine and the EU must work together to accelerate integration, support industrial development, and reduce dependence on third countries. It is essential to eliminate all barriers between Ukraine and the EU, ensuring seamless market access and creating new opportunities for economic growth for both partners.»



DMYTRO KYSYLEVSKYI

MEMBER OF PARLIAMENT, DEPUTY CHAIRMAN OF THE VERKHOVNA RADA OF UKRAINE COMMITTEE ON ECONOMIC DEVELOPMENT

«Ukraine's membership in the EU is not only a value-based choice, but also an opportunity for the development of our industry, which we must seize. Supporting investment in production capacities, creating industrial parks, and building new factories in Ukraine will not only strengthen the economy and have a European level of industrial development in Ukrainian cities, but also provide the EU with stable supplies of high-quality products. Our common task is to introduce effective incentives for the emergence of new production facilities and create conditions for mutually beneficial cooperation with the EU.»

Content

Acknowledgments 6

List of conventional abbreviations 7

Introduction 8

Chapter 1. Foreign Trade Relations Between Ukraine and EU Countries in the Context of Integration Processes 10

Foreign Trade Relations Between Ukraine and EU Countries in the Context of Integration Processes 10

1.1. Commodity and geographical structure of trade with the EU in 2008–2023 10

1.2. Commodity groups in the focus of bilateral trade 20

1.3. Prospective directions for replacing EU imports from the russian federation, belarus, and other countries with Ukrainian goods 27

1.4. Identification of directions for diversifying Ukrainian exports to the EU using export potential and economic complexity assessment methodologies. 34

Brief conclusions to Chapter 1 42

Chapter 2. Producer Survey and Labor Market Analysis 44

Agriculture 45

Poultry breeding 45

Pig farming 48

Honey production 50

Oil and fat industry 52

Food industry 55

Milk processing 55

Sugar production 58

Tomato processing 61

Production of fruit and vegetable juices 63

Flour, bread, and pasta production 65

Confectionery production 69

Alcohol production 72

Production of alcoholic beverages 75

Wine production 77

Light industry(clothing and textile production) 79

Woodworking and furniture industry 82

Pharmaceutical production 86

Chemical industry 88

Fertilizer production 88

Production of household chemicals and perfumery and cosmetic products 90

Production of polymer materials, rubber, plastics, and products thereof 93

Manufacture of rubber and rubber products 93

Production of plastics and plastic items 95

Production of cement, ceramics, glass and articles thereof 97

Cement production 97

Glassware production 100

Ceramicsproduction 102

Metallurgical industry 105

Machinery and equipment manufacturing 110

Agricultural machinery engineering 110

Machine tool engineering 113

Transportation vehicle manufacturing 115

Automotive industry 115

Bus production 117

Trailer andsemi-trailer production 120

Railcar manufacturing 122

Production of tank containers 124

Production of electrical equipment 126

Production of transformers 126

Production of lighting equipment 128

Production of wind turbines 130

Production of cable products 132

Other industrial goods 134

Commercial equipment 134

Production of boilers 136

Telecommunications 138

Summarizing the results of the business survey 142

The state of the labor market 144

Chapter 3. Mechanisms for Ensuring Ukraine's Optimal Integration into the European Economic Area 156

3.1. Strategic directions for deepening trade and economic cooperation between Ukraine and the EU 156

3.1.1. Providing the EU with critical and strategic materials 159

3.1.2. Strengthening the industrial potential and competitiveness of the EU 162

3.1.3. Ensuring food security in the EU 166

3.1.4. Easing the burden of Ukraine's integration into the EU's common market 167

3.2. Current challenges on the «Ukraine-EU» negotiation agenda 168

3.2.1. Exclusion of Ukraine from the scope of the CBAM 168

3.2.2. Optimization of the agricultural trade regime 171

3.2.3. Removing technical barriers to access to the EU market 174

3.3. Development of state support instruments for production and exports in Ukraine 177

3.4. Modeling of macroeconomic effects for Ukraine and the EU as a result of reaching a new level of strategic relations 183

Brief conclusions to Chapter 3 188

Conclusions 190

NOTES 197

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The sole responsibility for the content lies with the authors, the publication does not constitute an endorsement by the Ministry of Foreign Affairs of Denmark and the Confederation of Danish Industry (DI) of the views expressed in it.

LIST OF CONVENTIONAL ABBREVIATIONS

ACAA	Agreement on Conformity Assessment and Acceptance of Industrial Goods
CBAM	Carbon Border Adjustment Mechanism
CN	EU Combined Nomenclature
EUDR	EU Deforestation Regulation
EU ETS	EU Emission Trading System
GDPR	General Data Protection Regulation
GMP	Good Manufacturing Practice
GTAP	Global Trade Analysis Project
ITC	International Trade Center
HS	Harmonized Commodity Description and Coding System (Harmonized System)
PCI	Product Complexity Index
UNCTAD	United Nations Conference on Trade and Development
ATP	Autonomous trade preferences
ASF	African swine fever
RES	Renewable energy sources
DEA	Department of Economic Affairs
GNI	Gross national income
IDPs	Internally displaced persons
Fiberboard	Fiberboard
UGS	State Service of Geology and Subsoil of Ukraine (Ukrainian Geological Survey)
Particleboard	Particleboard
EFTA	European Free Trade Association
EBRD	European Bank for Reconstruction and Development
ERDF	European Regional Development Fund
PPP	Plant protection products
IP	Industrial Park
R&D	Research and development
UES	Unified energy system
ORDLO	Certain districts of Donetsk and Luhansk regions
DCFTA	Deep and Comprehensive Free Trade Area
GHG	Greenhouse gases
FEC	Fuel and energy complex
TBT	Technical barriers to trade
IOT	Input-output tables
TEM	Trade and economic mission
UKTZED	Ukrainian classification of goods of foreign economic activity



INTRODUCTION

In 2021, the Federation of Employers of Ukraine (FEU) presented a study on «Strategic guidelines for deepening trade and economic relations between Ukraine and the European Union countries under the Association Agreement «. It is still available on the FEU website at https://fru.ua/images/doc/analitics/2021/NDR_Ukr-EU.pdf. The study aimed to summarize the first five-year period of the Association Agreement between Ukraine and the EU and outline the directions for resetting trade relations between them on the most sensitive issues.

Four years later, it can be stated that the situation has undergone fundamental changes that were unimaginable at the time of conduct of the previous study. The big war destroyed a third of the Ukrainian economy and temporarily blocked traditional trade routes. Millions of compatriots left the country, fleeing the hostilities. In turn, manufacturers quickly shifted their focus to the European Union, which unilaterally lifted most of the remaining barriers to Ukrainian imports, organized the «Solidarity Routes» for the transit of Ukrainian goods to third countries, granted Ukraine candidate status for EU membership, and began official accession negotiations. However, along with great support, this poses no less challenges for Ukrainian business, which must, in times of unprecedented difficulties and threats, begin to adapt to the sophisticated conditions of Ukraine's full membership in the EU in an accelerated manner.

Much has changed for the EU itself as well. The growing geopolitical contradictions among key global economic players have revealed stark vulnerabilities in the community's economic security and resilience. Excessive dependence on the import of valuable raw materials and goods from countries that do not share the EU's values risks undermining the competitive positions of European economies at any given moment. Trade wars are disrupting established value chains and necessitating their urgent reconfiguration. The EU is losing global leadership in many innovative sectors and faces the urgent need to strengthen its security and defense sector through the development of its own defense industry. At the same time, the EU must not lose momentum in its ambitious fight against climate change, which requires colossal investments in energy modernization and structural shifts in industry. The EU recognizes the need for a radical revision of its interaction with the world based on the principles of open strategic autonomy, which involves making independent economic choices and shaping the world around it according to its strategic interests and values.

In response to these emerging challenges, a new study was conducted by the Federation of Employers of Ukraine to identify promising directions for the development of trade and investment relations between Ukraine and the EU in the new geopolitical realities. This study also aims to outline key points regarding the format of these relations and thereby substantiate the vision of the Ukrainian business community on the key issues of the agenda for negotiations on Ukraine's full membership in the EU. The central idea of this research is that, in order to solve economic problems and regain global leadership, the EU needs Ukraine as much as Ukraine needs the support and assistance of European partners amid the existential war of attrition and the fight for survival and preservation as a sovereign and independent state on the world map.

To this end, the first section of the study analyzes the shifts in bilateral trade between Ukraine and the EU. It examines the role the EU markets played for domestic producers and exporters at the start of the full-scale invasion. It identifies sectors that managed to increase their exports to the EU despite the

devastating effects of the war. The study also explores changes in the trade regime between Ukraine and the EU that occurred since 2022 and their positive and negative impact on the dynamics of bilateral trade relations. Additionally, it identifies promising product groups whose exports Ukraine could currently increase to the EU market for the benefit of both sides. The analysis covers the commodity flows from russia and belarus to the EU, which are subject to sanctions (or still continue to infiltrate the EU market) and can be swiftly replaced with Ukrainian-made products. It also includes imports to the EU from third countries (primarily from the so-called Global South), which the EU could replace with Ukrainian goods for strategic autonomy reasons.

Using simulation techniques, the study identifies product groups with the highest untapped export potential in Ukraine's trade with the EU and explores the prospective industry directions for diversifying Ukraine's exports of goods to the EU. The priority product groups for the development of domestic exports to the EU identified in all areas are summarized in Appendix A.

To illustrate the perspective of Ukrainian businesses on key challenges and the prospects for further integration with the EU, the second chapter presents the results of a survey conducted among producers. A total of 63 respondents participated, including 48 exporting companies and 15 industry associations, collectively representing 37 sectors of the national economy. Individual questionnaires were developed for each sector to account for their specific operational characteristics and the nuances of trade and economic relations with the EU. However, when summarizing the results, the participants' responses were organized into four main categories: assessment of the state of their sector and prospects for exporting to the EU; identification of key challenges and barriers to accessing the EU market; potential solutions to these issues, including through government policies; and identification of strategic advantages for the EU resulting from deeper cooperation with Ukrainian producers. Each analyzed sector includes concise informational summaries with detailed data on the development of trade relations with the EU and European consumer demand for similar products from third countries.

Given the acute problem of labor shortages caused by millions of Ukrainians becoming war refugees, either leaving the country or becoming internally displaced, the dynamics of Ukraine's labor market were also analyzed.

The third chapter outlines the strategic and operational priorities for developing trade and investment relations between Ukraine and the EU. Among the strategic directions, emphasis is placed on Ukraine's potential to become an indispensable partner for the EU in supplying critical materials to European industries. This would help European countries diversify imports and reduce dependence on supplies from risky and unreliable trading partners. The key position of the Federation of Employers of Ukraine (FEU) is that Ukraine should engage in at least partial processing of these materials to secure its share of the added value in this sector.

The chapter also highlights economic sectors where Ukraine can assist the EU in strengthening its global competitiveness and reclaiming lost positions in the international market. These include the aerospace industry, defense and security, ICT, and others. Additionally, it examines areas of cooperation where Ukraine and the EU have a history of mutually beneficial partnerships, such as woodworking and furniture production, manufacturing of wheelsets, cement, ethanol, and more. Special attention is given to Ukraine's role in ensuring the EU's food security, both in the present context and in anticipation of intensifying climate change.

Current negotiation priorities between Ukraine and the EU have been shaped based on a survey of Ukrainian producers regarding their main challenges in accessing the European market. Key areas of focus include:

- Resolving issues related to technical barriers to trade, particularly the burdensome procedures for certifying exported products and conformity assessments, which should be addressed through the conclusion of the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA).

- Eliminating new restrictions on the import of Ukrainian agricultural products into the EU, such as poultry meat, sugar, eggs, oats, natural honey, and grains.

- Exempting Ukraine from the EU's Carbon Border Adjustment Mechanism (CBAM), which imposes excessive burdens on Ukrainian exporters. Under wartime conditions, investments in large-scale environmental modernization are unfeasible, while EU manufacturers receive special state funding for similar needs.

Arguments are provided for each point, demonstrating how the EU stands to benefit from liberalizing access for Ukrainian products to its market. A crucial concluding argument is that by fostering the dynamic development of Ukraine's production and export potential, the EU can ultimately ease the financial burden associated with Ukraine's integration. The EU's cohesion policy, aimed at economic leveling, requires significant expenditures for countries whose GDP per capita is below the European average.

The study concludes with reflections on Ukraine's «homework,» referring to measures in domestic economic policy that are necessary to further develop the system of support and incentives for industry and other sectors of the national economy. In recent years, Ukraine has made significant progress in this direction: the 5-7-9 program, grants, the launch of the Export Credit Agency (ECA) with the function of insuring against war and political risks, localization in public procurement, a program for partial compensation of the cost of agricultural machinery, the expansion of industrial park networks, and other tools of state support have already substantially contributed to the development of Ukraine's economy under the current challenging conditions.

However, global experience and the results of surveys among producers indicate that, in the context of integration with the EU, this area should be further developed through tax-based investment compensation programs, the creation of a reconstruction and development bank, trade representations, support for international exhibition and trade fair activities, the expansion of localization efforts, etc.



CHAPTER 1

FOREIGN TRADE RELATIONS BETWEEN UKRAINE AND EU COUNTRIES IN THE CONTEXT OF INTEGRATION PROCESSES

1.1. Commodity and geographical structure of trade with the EU in 2008–2023

As a result of the large-scale military invasion by russian federation, the geography of Ukraine's trade and economic relations has undergone radical changes, primarily in favor of the European Union countries. However, Ukraine's geoeconomic turn to the West began to gain momentum back in 2014 thanks to the signing of the Association Agreement and the provision of autonomous trade preferences by the EU for Ukrainian commodity producers.

In the period of 2008–2013, the EU accounted for more than a quarter (27.6–30.0%) of Ukraine's external trade turnover. During the period of the deployment of first autonomous and then mutual liberalization of trade between Ukraine and the EU (2014–2021), this share gradually increased to about 40%. In 2022–2023, more than half (55.2–56.0%) of foreign trade in goods was carried out with EU countries. In contrast, trade in goods with CIS countries in the analyzed period reached its peak in 2010–2011 (the share in Ukraine's trade turnover was 40.3–41.3%). Since 2012, trade in this direction has been in decline, which accelerated after the occupation of Crimea and certain districts of Donetsk and Luhansk regions (ORDLO) in 2014, and by 2021, the CIS share in domestic commodity circulation had decreased to 14.3%. By the

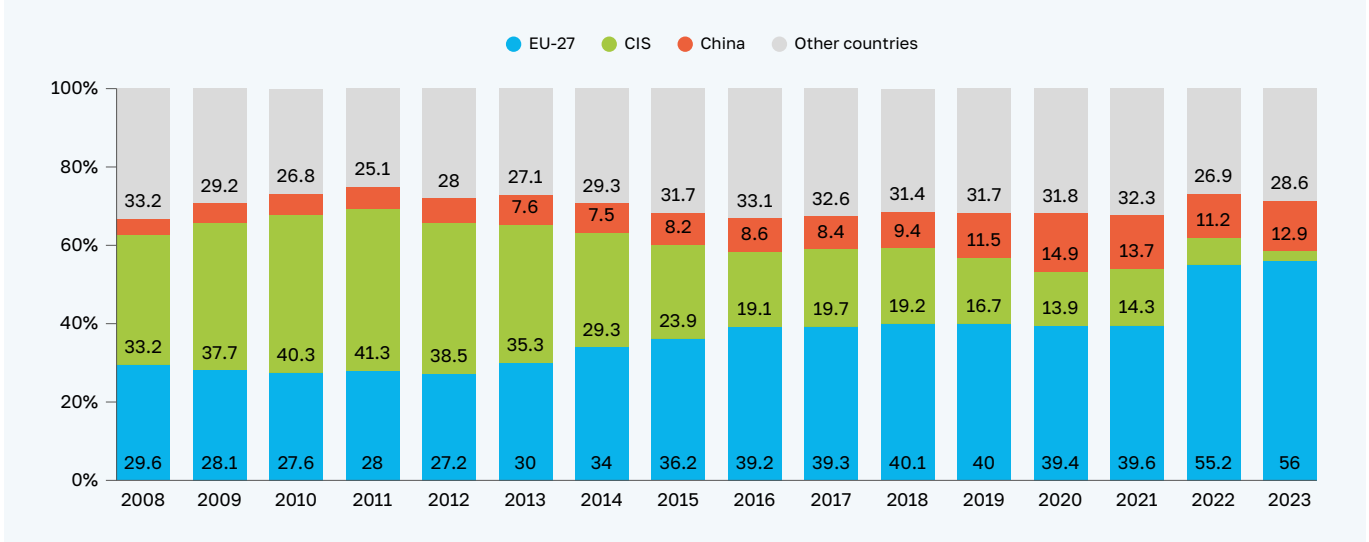


Fig. 1.1. Geographical structure of Ukraine's foreign trade turnover by main directions (EU, CIS, China, and the rest of the world) in 2008–2023

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 24 Oct. 2023). State Statistics Service of Ukraine. URL: https://unctadstat.unctad.org/datacentre/

end of 2023, the corresponding figure was only 2.5% (Fig. 1.1).

Considering the shifts in the geographical structure of Ukraine's foreign trade since 2008, three major stages can be distinguished:

Stage I (2008–2013) – characterized by the predominance of foreign trade relations with the CIS in the context of liberalized access to the markets of post-Soviet countries and regulatory restrictions on access to EU markets; the export structure is still dominated by metallurgical products, but agricultural exports are already beginning to develop actively; mechanical engineering products play a significant role in exports, but in 2012–2013 its supplies begin to decline due to problems in accessing the russian market, where the import substitution policy is being implemented; and the key role of the CIS countries in commodity circulation is also determined by significant supplies of russian energy resources;

Stage II (2014–2021) – the EU's emergence as a leading player in Ukrainian trade as a result, on the one hand, of the granting of autonomous trade preferences (2014) and the entry into force of the Deep and Comprehensive Free Trade Area Agreement as a component of the Association Agreement (2016), and on the other hand, of the closure of the russian market for most Ukrainian producers; partial reorientation of exports from Ukraine to the markets of EU countries, which was restrained by tariff quotas for agricultural products and technical regulations on the rules of conformity and acceptability for industrial goods; and aggravation of the systemic crisis and macroeconomic problems due to the difficulties of finding alternative sales markets for many manufacturers of mechanical engineering products and as a result of the partial destruction of industrial potential in the temporarily uncontrolled territories of the ORDLO;

Stage III (2022 – present) – complete loss of the russian and belarusian markets, temporary transport blockade of seaports and disruption of trade corridors to Central Asian countries; removal of residual trade barriers by the EU and organization of «solidarity lanes» to ensure the transit of Ukrainian goods through EU countries (however, not without excesses with the blocking of Ukrainian products at the borders by some member states); and destruction by the aggressor of large-scale production capacities and supply chains, which, combined with the occupation of new territories and an unprecedented number of refugees, led to a drop in Ukraine's GDP by 29.2%, and in industry by 44.7%. Unprecedented difficulties with logistics resulted in a significant reduction in export supplies, while the situation on world markets led to a rapid increase in the value (but not physical) volumes of imported products.

Thus, the increase in the EU's share in Ukrainian foreign trade since 2014 occurred mainly against the backdrop of the unfolding crisis processes in the domestic economy and a decrease in foreign trade volumes in general and with EU countries (except for 2022–2023) in particular (Table 1.1).

Having fallen sharply in 2009 due to the global financial and economic crisis, exports of goods from Ukraine to the EU in nominal terms exceeded the pre-crisis level (17.6 billion USD in 2008) only at the end of 2018, reaching 19.6 billion USD. However, if in 2008 the EU accounted for only 26.3% of Ukrainian exports of goods, then in 2018 the EU's share reached 41.4%. In 2021, exports of goods from Ukraine to the EU amounted to 25.7 billion USD or 39.0% of total exports. At the end of 2023, exports to the EU amounted to only 23.4 billion USD, which, however, amounted to 64.6% of the total exports of goods in this year.

Throughout the entire period under study, with the exception of 2022, there has been a negative balance of foreign trade in goods between Ukraine and the EU. The trade deficit was particularly large in 2008–2013 (5.6–9.9 billion USD). Starting in 2014, it went down to 2.1–4.6 billion USD, primarily due to the devaluation of the national currency, the reduction of the processing industry, and the decline in the purchasing power of the Ukrainian population, which limited the demand for products from EU countries. Accordingly, the import-export coverage ratio in trade with the EU rose from 0.62–0.71 in 2008–2013 to 0.80–0.92 in 2014–2021.

In 2022, Ukrainian exports of goods to the EU exceeded imports by 1.0 billion USD (coverage ratio 1.04); however, by the end of 2023, the trade deficit reached 9.1 billion USD (coverage ratio 0.72). The positive balance in 2022 was achieved primarily due to the fact that, under the conditions of the maritime blockade, a number of Ukrainian exporters were looking for opportunities to sell their products to world markets in transit through the EU, using the logistics hubs of European countries. Already in 2023,

Table 1.1. Dynamics of Ukraine's foreign trade in goods with the EU countries and in general in 2008–2023, million US dollars

Indicators	2008	2010	2012	2014	2016	2018	2020	2022	2023
Export to all countries	66952	51430	68694	53913	36361	47334	49231	44443	36183
Export to EU countries	17624	12588	16570	16417	13183	19576	17954	28029	23392
EU share in exports, %	26,3	24,5	24,1	30,5	36,3	41,4	36,5	63,1	64,6
Import from all countries	85448	60737	84657	54381	39250	57187	53675	55224	63567
Import from EU countries	27540	18329	25079	20368	16431	22324	22545	26986	32487
EU share in imports, %	32,2	30,2	29,6	37,5	41,9	39,0	42,0	48,9	51,1
Trade balance with the EU	-9916	-5741	-8509	-3951	-3248	-2748	-4590	1042	-9095
Import-export coverage ratio in trade with the EU	0,64	0,69	0,66	0,81	0,80	0,88	0,80	1,04	0,72

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 24 Oct. 2023). State Statistics Service of Ukraine. URL: https://unctadstat.unctad.org/datacentre/

the need for such transit objectively decreased, and the cost of imported products went up significantly.

According to the data from the State Statistics Service, the physical volume of commodity imports into Ukraine in 2023 increased by 6.7%, while the value volume rose by 15.2%. At the same time, the physical volume of exports went down by 4.8%, and the value volume decreased by 18.5%. Thus, the ineffective format of integration into world commodity markets, combined with exogenous challenges, currently makes it impossible to achieve sustainable trade and economic cooperation between Ukraine and the EU countries. This is, in particular, conditioned by the commodity structure of domestic exports to the EU, as well as changes in this structure in recent years (Fig. 1.2).

The basis of the Ukrainian commodity exports to the EU in 2008 was base metals and products made of them (33.8%), primarily semi-finished products, flat rolled products, and carbon steel bars and rods. Starting from 2012, the share of these products in exports to the EU dropped and by 2021 was within 16.5–27.0%. In 2021, it amounted to 22.5%. At the same time, the value of supplies of base metals from Ukraine to the EU in 2021 amounted to 5.79 billion USD, which is only 3.7% less than in 2008. Thus, the drop in the share of metallurgical products in domestic exports to the EU occurred mainly against the background of an outpacing increase in supplies of other types of products. However, in 2022–2023, exports of base metals to the EU decreased sharply and amounted to 3.03 billion USD in 2023 (13.0% of total exports to the EU), which in value terms is almost half as much as in 2021. As for the physical volumes of supplies, according to the State Statistics Service of Ukraine, for commodity group «Ferrous Metals», code 72 under the UKTZED, exports to the EU in 2023 went down by 78.9% compared to the results before the large-scale invasion.

In contrast, in the structure of exports of goods from Ukraine to the EU, there is a significant boost in the share of agricultural and food industry products. In 2008–2011, it accounted for 14.6–21.3% of supplies to the EU. Already in 2012, this share increased to 28.9% and later on, against the background of liberalization of access to European markets, rose to 33.8% in 2020. This is primarily corn, the supplies of which, according to Eurostat, in 2008–2020 increased from 1.18 million to 8.76 million tons, and sunflower oil, the exports of which to the EU during the specified period grew from 30.2 thousand to 117.7 thousand tons. Since after the outbreak of a large-scale war, Europe's transport and logistics networks also provide transit for Ukrainian agricultural products, statistics recorded a significant increase in Ukrainian agricultural exports to the EU. In particular, exports of corn rose to 12.9 million tons, and sunflower oil exports – to 221.4 thousand tons in 2023. Overall, the share of agricultural and food industry goods in exports from Ukraine to the EU mounted to 53.4% based on the results of 2023.

At the same time, Ukraine gradually increased its exports of scrap metal and metal ores to the EU, primarily iron ore raw materials. According to Eurostat, in 2008, EU countries imported 11.48 million tons of iron ores and concentrates from Ukraine, and in 2021 the corresponding supplies amounted to 16.45 million tons (an increase of 43.3% in natural terms). The foreign exchange earnings of Ukrainian exporters for these raw materials in 2008 was 1.36 billion USD, while in 2021 – almost 2.8 billion USD (which means it more than doubled). After the invasion, exports of iron ores and concentrates to the EU decreased slightly. In 2023, it amounted to 13.57 million tons (17.5% less than in 2021). Regarding scrap metal, its export in 2008–2021 rose from 16.8 thousand to 70.2 thousand tons, and in 2023 reached 178.0 thousand tons.

The share of mechanical engineering products in exports from Ukraine to the EU during 2008–2021 was in the range of 11.6–17.3% and in general had been gradually increasing. However,

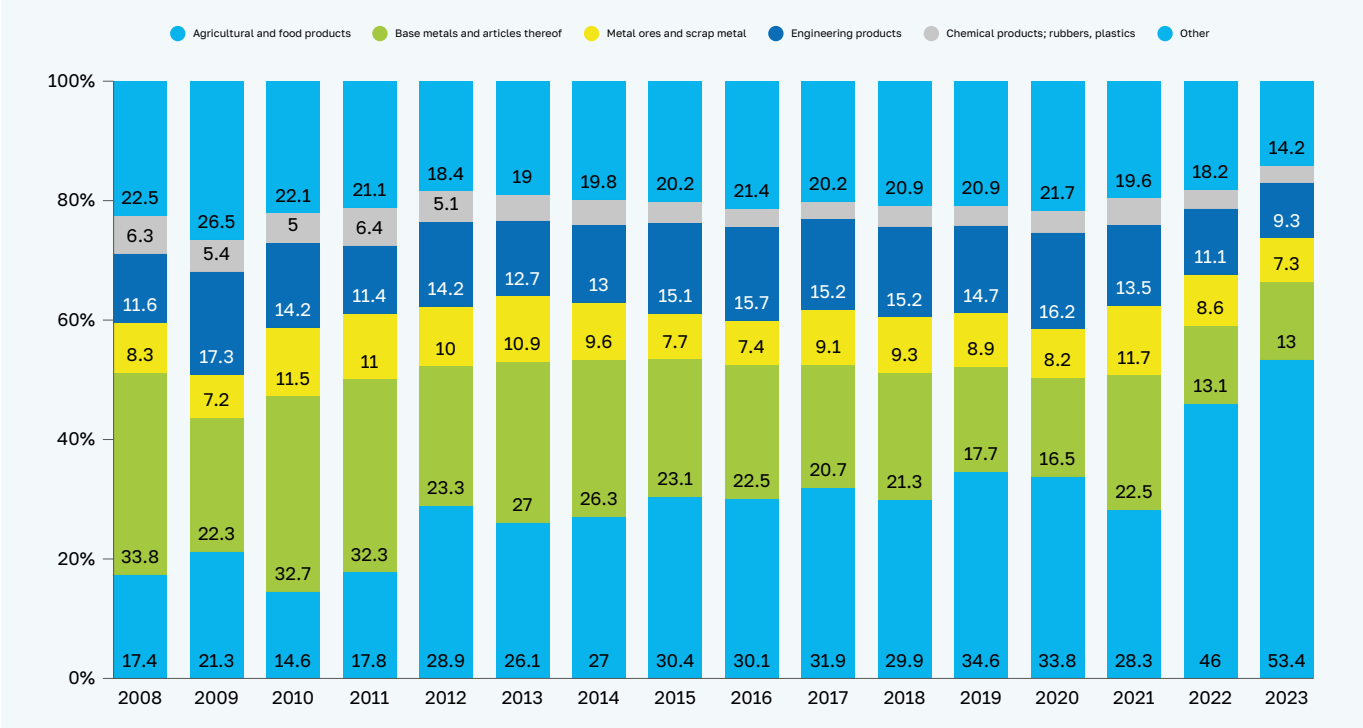


Fig. 1.2. Dynamics of the commodity structure of Ukraine's exports to the EU in 2008–2023, %

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 24 Oct. 2023). State Statistics Service of Ukraine. URL: https://unctadstat.unctad.org/datacentre/

this was mainly due to a significant growth in supplies of only two product lines: spark plug wire sets and other types of cable sets used in transportation vehicles (code 8544 30 according to the UKTZED), as well as electric water heaters for making coffee or tea (code 8516 71 according to the UKTZED).

In 2021, Ukraine exported 54,000 tons of vehicle wires to the EU, which provided over 1.44 billion USD in foreign exchange earnings. In terms of physical volume, these exports rose by 2.6 times in 2008–2021, and in terms of value – by 2.9 times. In 2021, this single commodity item accounted for 41.9% of all exports of mechanical engineering products from Ukraine to the EU. It should be noted that these exports do not reflect the development potential of Ukrainian mechanical engineering, as they are carried out mainly by subsidiaries of EU automakers. In essence, they are the result of the implementation of the strategy by European (and Japanese) companies that have outsourced a separate production function in the car manufacturing process to Ukraine in order to take advantage of savings in labor and scale of production. These exports are under the control of TNCs and are exclusively part of their intra-corporate supply chains.

In the context of the large-scale invasion, several international automobile manufacturers either halted or significantly reduced the production of wiring harnesses in Ukraine. As a result, exports of this product dropped to 48,100 tons in 2022 and further to 24,000 tons in 2023. Consequently, the share of machinery and engineering products in Ukraine's exports to the EU fell to historic lows, accounting for just 11.1% in 2022 and 9.3% in 2023. In the first quarter of 2024, Ukraine's exports of wiring harnesses amounted to only 2,290 tons, which is 3.3 times less than in the first quarter of 2023. This trend of declining shares of machinery products in Ukraine's exports to the EU continues.

Regarding electric water heaters, their active export to the EU began in late 2016. By 2017, Ukraine had exported over 4.2 million units of water heaters, primarily to Hungary (which consistently accounts for 99.9% of Ukraine's total exports of this product). By 2021, these exports increased to 6.0 million units, generating $300.9 million in revenue. However, in 2022, domestic exports of electric water heaters dropped to 5.2 million units and further declined to 3.36 million units in 2023, bringing only $172.0 million in foreign currency revenue.

Ukrainian exports to the EU of chemical and related products sharply decreased between 2015 and 2020, mainly due to reduced supplies of fertilizers, organic and inorganic chemicals, and primary polymer materials. The post-COVID-19 economic recovery spurred demand and created favorable price conditions in the sector, particularly in the fertilizer market. As a result, Ukrainian exports of chemical and related products to the EU recovered in 2021, reaching $1.47 billion. However, in 2022–2023, fertilizer exports nearly ceased, and exports of organic and inorganic chemical products fell by about half. Overall, the share of chemical products in Ukraine's goods exports to the EU peaked at 6.4% in 2011. By 2021, this share had declined to 4.5%, and in 2023, it stood at just 2.8%.

Overall, the share of processed industrial products in Ukraine's exports to the EU decreased from 60.6% in 2008 to 53.7% in 2021, and further declined to 34.7% in 2023. At the same time, technological simplification of exports occurred (Table 1.2).

The most notable trend in the dynamics of Ukraine's industrial exports to the EU until recently was the increase in the volume and share of resource-intensive goods. These are products whose cost structure typically excludes expenses for research and development (R&D) or for acquiring patents, licenses, or know-how to apply new technical solutions. Among these goods, Ukraine significantly increased its exports to the EU in the following categories: wood products (4.5 times growth from 2008 to 2021, with an additional 16.8% increase in 2022 compared

Table 1.2.
Dynamics of exports of processing industry goods from Ukraine to the EU by level of technological sophistication in 2008–2023

Indicators	Unit.	2008	2012	2016	2020	2021	2022	2023
Export of goods to the EU	million $	17624,6	16570,2	13182,9	17954,5	25709,8	28028,8	23392,8
Export of manufactured goods, including:	million $	10673,7	8351,8	7150,8	9185,4	13816,2	10841,7	8113,9
	%	60,6	50,4	54,2	51,2	53,7	38,7	34,7
Resource-intensive goods	million $	1667,3	1188,3	1331,1	2455,4	3184,8	2893,9	2051,8
	%	15,6	14,2	18,6	26,7	23,1	26,7	25,3
Low-tech goods	million $	6440,6	4938,0	4021,9	4321,2	7361,1	4954,7	3814,6
	%	60,3	59,1	56,2	47,0	53,3	45,7	47,0
Goods produced using mid-level technologies	million $	754,8	531,4	566,3	1444,7	1772,1	1754,1	1451,5
	%	7,1	6,4	7,9	15,7	12,8	16,2	17,9
High-tech products	million $	1682,3	1537,4	706,8	964,2	1498,2	1239,0	795,9
		15,8	18,4	9,9	10,5	10,8	11,4	9,8

Notes:

1. Products of the manufacturing industry here correspond to the group "Manufactured goods" according to the UNCTAD classification, which covers the goods of manufacturing industries, except for the production of food and petroleum products.
2. Production of cable sets for motor vehicles is classified here as low-tech goods

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 31 Jul. 2024). URL: https://unctadstat.unctad.org/datacentre/

to the previous year, reaching nearly $1 billion), furniture (6.4 times growth during 2008–2021), glass products (4.9 times), and textiles (2.4 times). The growth of these exports occurred steadily, regardless of external market conditions or macroeconomic, security, and other internal challenges. Consequently, the share of resource-intensive goods in the structure of Ukraine's processed industrial exports to the EU rose from 15.6% in 2008 to 26.7% in 2022. However, in 2023, export volumes of these goods decreased significantly, reducing their share in exports to 25.3%, even amid an overall decline in goods exports to the EU.

The share of low-tech goods in Ukraine's processed industrial exports to the EU fell during the study period, from 60.3% to 47.0%. This was primarily due to reduced shipments of base metals and their products, with additional declines in wire harness exports following the large-scale invasion.

A positive aspect of Ukraine's processed goods export structure to the EU is the increased share of medium-tech products, which rose from 7.1% in 2008 to 17.9% in 2023. This growth resulted from pre-war increases in exports of electric water heaters and certain types of electrical equipment (such as batteries, motor electrical devices, pumps, alarm systems, refrigeration equipment, etc.), as well as plastic products, whose export volumes remained relatively stable in 2022–2023.

Exports of high-tech products make up the smallest share in the supply of domestic manufactured products to the EU and tend to drop in the analyzed period both in absolute terms (from 1.68 billion USD to 0.79 billion USD) and in relative terms (from 15.8% to 9.8%). This is primarily due to the decline in exports of telecommunications equipment and spare parts for it, complex chemical compounds and polymeric materials, aircraft, etc. At the same time, medicines continue to hold stable positions in this segment (in particular, under the code 3004 of the UKTZED). Their supplies to the EU from Ukraine have grown by 43.9% since the beginning of the large-scale invasion – from 304.2 tons in 2021 to 437.7 tons in 2023.

Structural imbalances in domestic exports of goods to the EU become apparent if we consider the first twenty commodity items in it, applying a high level of data disaggregation by six-digit UKTZED codes (Fig. 1.3).

Among the top 20 commodity items of domestic exports to the EU, eight belong to agricultural raw materials (corn, wheat, barley, rapeseed, soybeans and oilcake from them, and sunflower seeds and oilcake from them), where corn is the undisputed leader with a share of 13.2%. Another eight commodity items cover primary processing products of the metallurgical industry (semi-finished products from carbon steel, hot-rolled flat products, and ferrosilicomanganese) and food industry (crude and refined sunflower oil, soybean oil, domestic chicken meat, and sugar). Two commodity items are represented by iron ore raw materials, and only one item each is for the furniture industry and electrical equipment, namely – sets of cables for transportation vehicles.

For comparison, a previous study by the Federation of Employers of Ukraine "Strategic Guidelines for Deepening Trade and Economic Relations of Ukraine with the European Union Countries in the context of the Association Agreement"[1] showed that as of 2019, the top 20 positions in exports from Ukraine to the EU

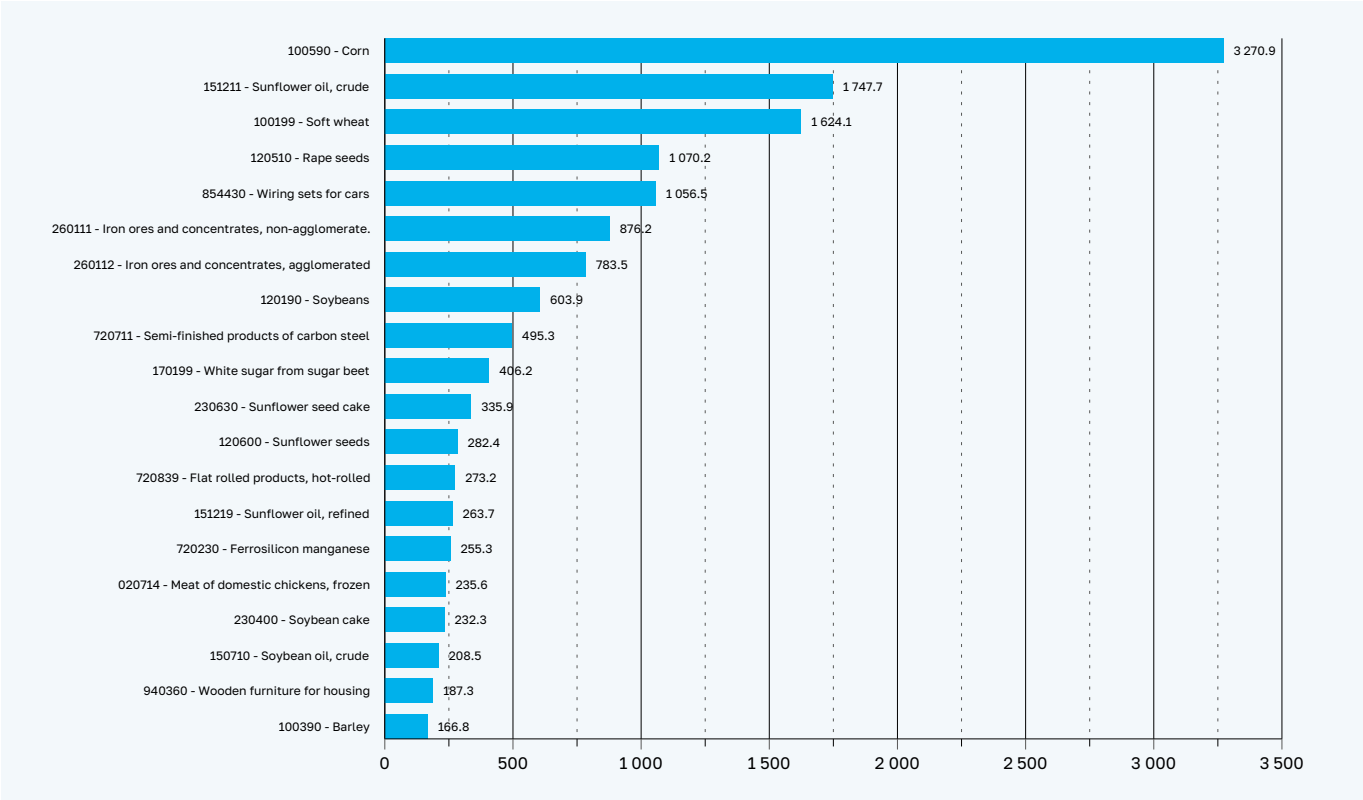


Fig. 1.3. Top 20 commodity items in Ukraine's exports to the EU in 2023, million USD

Source: World Integrated Trade Solutions. Trade Data: Advanced Querry (UN COMTRADE). URL: https://wits.worldbank.org/Default.aspx

1 https://fru.ua/images/doc/analitics/2021/NDR_Ukr-EU.pdf

contained five types of products from processing industries (three types of processed timber, cable sets, and water heaters) and only five types of agricultural raw materials (corn, wheat, soybeans, sunflower seed oilcake, and rapeseed). Primary processing was represented by five types of metallurgical products (two positions of semi-finished carbon steel products, ferrosilicomanganese, cast iron, and flat rolled products) and one type of food product (sunflower oil).

The structure of commodity imports from the EU to Ukraine is fundamentally different. First, it is much more diversified: in 2023, it included 4,647 types of commodity items (aggregation level by six-digit UKTZED codes), and the top 20 positions in it accounted for 30.1% of the value of supplies from the EU. In contrast, Ukrainian exports to the EU in 2023 were carried out for only 3,555 types of commodity items, of which the top 20 concentrated 57.8% of the value of supplies to European markets. Second, imports are dominated by the share of products from mechanical engineering and chemical and related industries, and, after the large-scale invasion, also petroleum products (Fig. 1.4).

The basis of mechanical engineering imports to Ukraine from the EU countries is passenger and freight cars and parts for them, electrical semiconductors and electrical equipment, pumps, compressors, power generating units and rotating electrical converters, various mechanical equipment, tractors and other self-propelled machinery for use in agriculture, etc. Thus, in 2008, Ukraine imported 111.6 thousand passenger cars from the EU. In 2014–2015, this import collapsed to 28.0–28.2 thousand cars, but since then it has been constantly growing, reaching 207.9 thousand cars in 2021 and 238.6 thousand cars by the end of 2023. This was facilitated by the policy of complete openness of the domestic market, including certain tax benefits, including for used cars. As for tractor imports, in 2008 they reached 48.3 thousand units, but by 2014 they had fallen to only 3.9 thousand units. Since then, tractor imports from the EU have gradually increased and reached 15.2 thousand units in 2021 and 21.6 thousand units in 2023.

In terms of value, total mechanical engineering imports from the EU amounted to 9.4 billion USD in 2021, which is 13.5% less than in 2008. In 2023, these imports decreased to 8.2 billion USD, which is 12.9% less than before the large-scale invasion.

Imports from the EU of products of the chemical and related industries are represented primarily by pharmaceutical products and preparations, perfumery and cosmetic goods, household chemicals, primary polymeric materials and semi-finished products from them, as well as nitrogen-containing fertilizers, insecticides, and other plant protection products. A sharp increase in the share of products of the fuel and energy complex in 2014–2015 to 18.6–22.2% is associated with the organization of reverse supplies of natural gas from the EU countries, and during 2022–2023 – with a reorientation to European oil product markets after the severance of trade relations with the russian federation and belarus. In particular, supplies of heavy and middle oil distillates (primarily diesel fuel) from the EU to Ukraine in 2023 mounted 3.89 million tons, which is almost three times more than in 2021 (1.35 million tons); as for light distillates (gasoline), their imports increased to 1.09 million tons in 2023 compared to 647.8 thousand tons two years earlier.

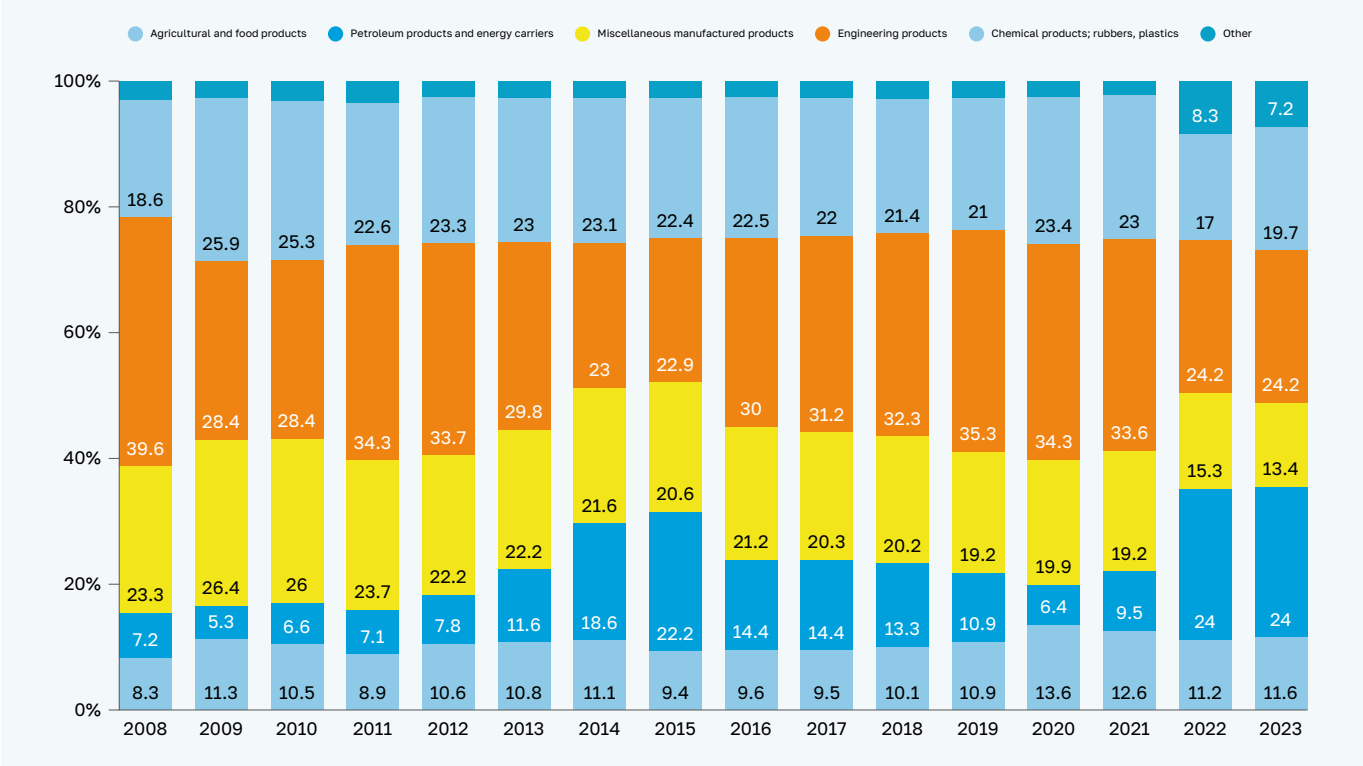


Fig. 1.4. Dynamics of the commodity structure of Ukraine's imports from the EU in 2008–2023, %

Note:

1. The commodity group «Miscellaneous manufactured products» includes products of the woodworking, paper, textile, fur, and metallurgical industries; manufacture of products from clay, glass, and stone; production of cement, etc.

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 24 Oct. 2023). State Statistics Service of Ukraine. URL: https://unctadstat.unctad.org/datacentre/

Among other manufactured goods of, a significant share of Ukrainian imports from the EU is made up of ferrous metal products, flat clad rolled iron with coating, special fabrics and products made of them, paper, cardboard and products made of them, and rubber products. However, supplies of these types of commodities show a long-term downward trend. In contrast, imports of various plastic products and instrument-making products, primarily medical devices and equipment, measuring and/or control devices, are increasing.

In general, the share of the manufactured goods (excluding food and fuel and energy ones) in imports from the EU to Ukraine reached 80.7% in 2008. Then it slightly dropped during the economic crisis and the introduction of the practice of reverse natural gas supplies in 2014–2015 (64.9–67.3%) and gradually increased to 75.1% in 2021. After the large-scale invasion, it fell to 55.9%, with the value of such imports going down from 21.1 billion USD in 2021 to 15.1 billion USD in 2022 (a drop of 28.4% in terms of value). However, it recovered somewhat in 2023 – to 18.7 billion USD, accounting for 57.6% in the structure of imports from the EU. At the same time, the structure of imports of processed products from the EU to Ukraine in terms of technological sophistication level has remained almost unchanged for a long time and is characterized by a significant predominance of the share of goods produced using high and medium technologies (Table 1.3).

The share of resource-intensive goods in imports of the manufactured products from the EU to Ukraine during 2008–2022 was in the range of 9.9–14.4%. The relevant product segment is represented primarily by paper, cardboard, and products made from them, textiles, ceramic building materials, wood-fiber (MDF) and particle boards (chipboard).

Low-tech goods account for 7.4–9.8% of processed imports to Ukraine from the EU. This category of supplies consists primarily of flat carbon steel products and base metal products, the share of which has increased not least due to the destruction and loss of relevant production facilities in eastern Ukraine, as well as trailers and semi-trailers.

The largest share of imports of processed products from the EU to Ukraine is made up of goods manufactured using mid-level technologies. In years of more favorable conditions, this share was 42.8–47.5%, while in crisis periods (2009 and 2014–2015), it dropped to 34.1–37.3% due to a decline in demand for agricultural mechanical engineering products, passenger and freight motor vehicles and parts for them, as well as various mechanical equipment, which forms the basis of imports of mid-level technologies from the EU to Ukraine. In 2022, imports of these products went down in proportion to the decrease in supplies of all manufactured products, so their share was 44.0%. However, in 2023, it also grew in proportion to the increase in purchases of such products, amounting to 44.6% in the total volume.

Finally, the share of high-tech goods in the structure of imports of the manufactured products into Ukraine from the EU during 2008–2023 went up from 29.4% to 36.2%. This was conditioned by the consistently high demand for pharmaceuticals, plant protection products and chemical fertilizers, complex chemical compounds, measuring instruments and medical equipment, complex polymers, and plastic products. For these types of goods, a significant level of import dependence of Ukraine in trade and economic relations with EU countries can be observed.

Analysis of the Ukrainian imports of goods from the EU at a high level of disaggregation (by six-digit UKTZED codes) indicates that in 2023, twelve of the top 20 positions belong to mechanical engineering products, including passenger and commercial vehicles, aircraft, tractors, mobile phones and other communication equipment, fuel rods for nuclear power plants, and various military equipment – night vision devices, artillery, shells, etc. (Fig. 1.5).

Table 1.3.
Dynamics of imports of the manufactured goods to Ukraine from the EU by level of technological sophistication in 2008–2023

Indicators	Unit	2008	2012	2016	2020	2021	2022	2023
Import of goods from the EU	million $	27539,7	25078,8	16431,4	22544,8	28091,0	26986,4	32487,0
Import of manufactured goods, including:	million $	22219,9	19643,0	11950,6	17307,8	21086,4	15093,8	18723,2
	%	80,7	78,3	72,7	76,8	75,1	55,9	57,6
Resource-intensive goods	million $	3083,2	2658,7	1716,8	1985,4	2337,7	1812,0	1854,9
	%	13,9	13,5	14,4	11,5	11,1	12,0	9,9
Low-tech goods	million $	2050,3	1929,6	919,8	1295,8	1558,8	1339,1	1743,8
	%	9,2	9,8	7,7	7,5	7,4	8,9	9,3
Goods produced using mid-level technologies	million $	10554,5	8402,7	5178,7	7725,2	9601,4	6648,5	8351,9
	%	47,5	42,8	43,3	44,6	45,5	44,0	44,6
High-tech products	million $	6531,9	6651,9	4135,3	6301,4	7588,6	5294,2	6772,6
		29,4	33,9	34,6	36,4	36,0	35,1	36,2

Note:

1. Products of the manufacturing industry here correspond to the group “Manufactured goods” according to the UNCTAD classification, which covers all goods of manufacturing industries, except for the production of food and petroleum products.

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 31 Jul. 2024). URL: https://unctadstat.unctad.org/datacentre/

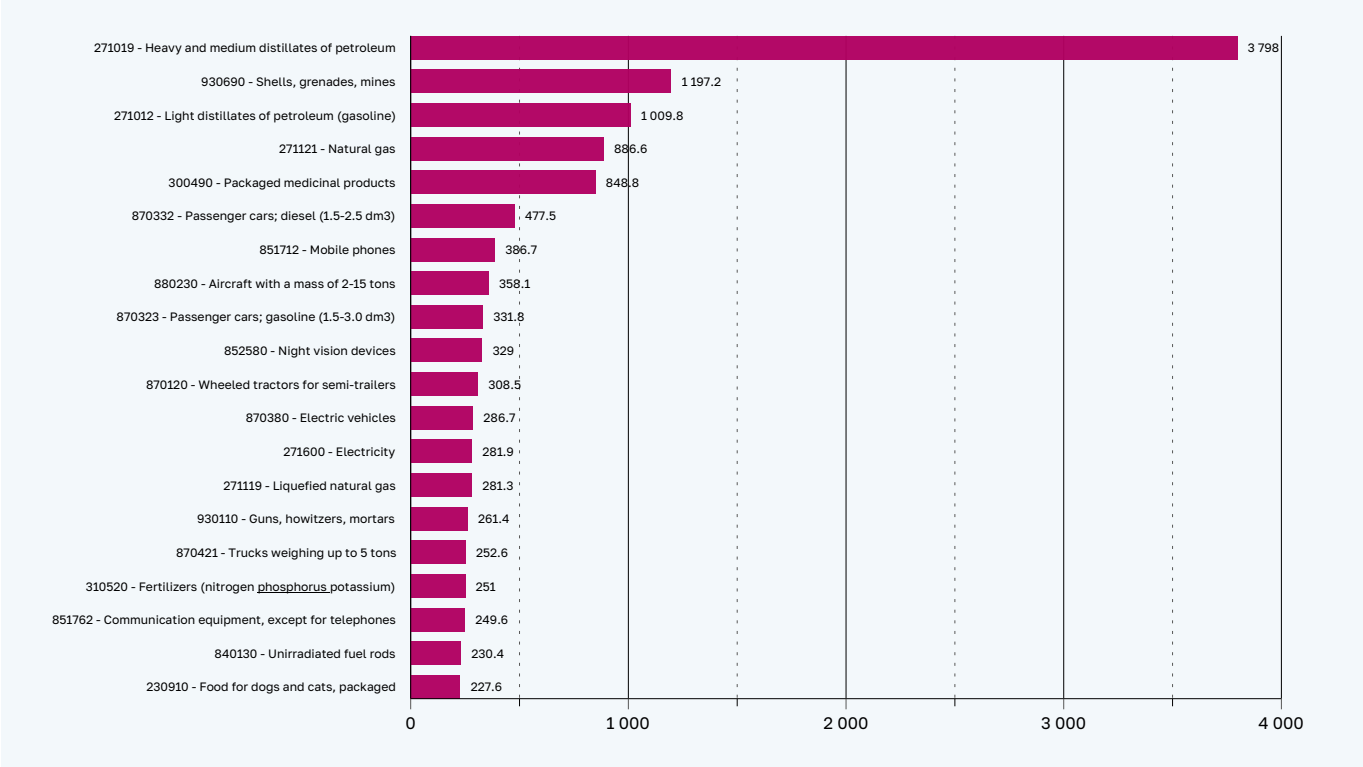


Fig. 1.5. Top 20 commodity items in Ukraine's imports from the EU in 2023, million USD

Source: World Integrated Trade Solutions. Trade Data: Advanced Querry (UN COMTRADE). URL: https://wits.worldbank.org/Default.aspx

Five items belong to the products of the fuel and energy complex: petroleum products, natural gas in gaseous and liquefied state, and electricity. The leading place here is occupied by heavy and medium oil distillates (code 271019 according to the UKTZED), the share of which in total imports of goods from the EU reaches 9.3%. Among the remaining commodity items, two cover products of the chemical industry (packaged pharmaceuticals and chemical fertilizers), and another one is pet food. It is worth noting that back in 2008, Ukraine exported chemical fertilizers to the EU for the amount of 214.2 million USD, while return deliveries amounted to only 35.3 million USD. According to the results of 2023, Ukraine supplied fertilizers to the EU in the amount of only 46.8 million USD, while the EU delivered fertilizers to Ukraine for the amount of 754.2 million USD. Thus, in trade and economic relations with the EU, Ukraine de facto became a part of the EU common fertilizer market and turned from a net exporter of fertilizers into a net importer.

Compared to 2019, the top 20 commodity items in imports from the EU to Ukraine included weapons and military equipment for the first time, as well as more types of fuel and energy products and aircraft. They displaced plant protection products, grain harvesters, wind power plants, electrical conductors, insulating plastic fittings, and other plastic products. Overall, the dominance of mechanical engineering commodities with a mix of fuel and energy products and chemical products in the top 20 remained unchanged.

In geographical terms, the main countries of destination for commodity exports from Ukraine to EU member states in 2023 were Poland, which accounted for 20.3% of the relevant supplies and became Ukraine's largest trading partner among all countries in the world, Romania (16.1%), Germany and Spain (8.6% each), Italy (6.6%), the Netherlands (6.4%), Hungary (5.1%), Slovakia (4.6%), and the Czech Republic (4.3%). The remaining EU countries accounted for less than a fifth of exports (Fig. 1.6).

As for Poland, Ukraine exports mainly sunflower, soybean, and rapeseed oils, rapeseed, soybean and sunflower seed oilcake, iron concentrates and ores, corn, wheat, soybeans, wood joinery and carpentry, cladding sheets, chipboard, and sawn timber. Exports to Romania are mainly represented by the same commodity groups, as well as sugar, hot-rolled carbon steel bars, and fuel wood. Ukraine supplies mainly rapeseed and soybeans, corn, sunflower oil, seamless steel pipes, natural honey, fruit juices, carbon steel wire, and wooden containers to Germany. The leading positions in exports to Spain are corn, wheat, barley, sunflower oil and sunflower seed oilcake, sugar, rapeseed and sunflower seeds, cast iron, ferroalloys, seamless steel pipes, semi-finished carbon steel products, and flat rolled products.

After the large-scale invasion, the geography of domestic exports of goods to the EU countries became less diversified. In particular, in 2019, Poland (which was also Ukraine's largest trading partner among the EU countries at that time) accounted for only 13.0% of export deliveries to the EU, while in 2023 this share increased to 20.3%. Since then, the share of Romania has grown the most – from 4.8% to 16.1%, indicating that the seaports of this country have become the main logistics center for the transit of Ukrainian products to third-country markets. Among the countries of destination for domestic exports to the EU countries, the share of Spain has also increased – from 7.2% to 8.6%. Instead, the weight of countries such as Germany (from 11.5% to 8.6%), Hungary (from 7.5% to 5.1%), and the Netherlands (from 8.9% to 6.4%) went slightly down, which is primarily due to the reduction in domestic exports of cable sets for transportation vehicles and electric water heaters for making coffee or tea.

Ukraine's largest partners in the import of goods among EU countries in 2023 were Poland, which accounted for 20.2% of import supplies from the EU, Germany (15.6%), Italy (7.0%), Bulgaria (6.8%), the Czech Republic (5.5%), France (5.4%), and Slovakia (5.2%). The share of each of the other countries in the structure of commodity imports from the EU does not exceed five percent (Fig. 1.7).

Key imports from Poland include petroleum products and natural gas, nitrogen fertilizers and fertilizers containing nitrogen, phosphorus, and potassium, coking coal, petroleum bitumen, animal feed, cheese, polymers in primary forms, detergents (excluding soap), pharmaceuticals, and flour-based confectionery products. From Germany, Ukraine primarily imports pharmaceuticals, petroleum products, natural gas, plant protection products (insecticides, fungicides, herbicides), cheese, coffee, and animal feed. Italy's main exports to Ukraine consist of tobacco products, wine, coffee, pharmaceutical preparations, petroleum products, fertilizers, pasta, hair care products, and cosmetics. Approximately half of Bulgaria's exports to Ukraine in 2023 were recorded as humanitarian aid.

Unlike exports, Ukraine's imports from EU countries became somewhat more geographically diversified after the large-scale invasion. In 2019, the top three EU trading partners accounted for 48.0% of imports, but by 2023, this share had decreased to 42.8%. During this period, Poland's share of imports slightly increased (from 16.7% to 20.2%), while Italy's share decreased (from 8.6% to 7.0%), and Germany's share also declined (from 22.7% to 15.6%). In monetary terms, imports from Germany in 2023 amounted to $5.06 billion, 2.1% less than in 2019 ($5.17 billion).

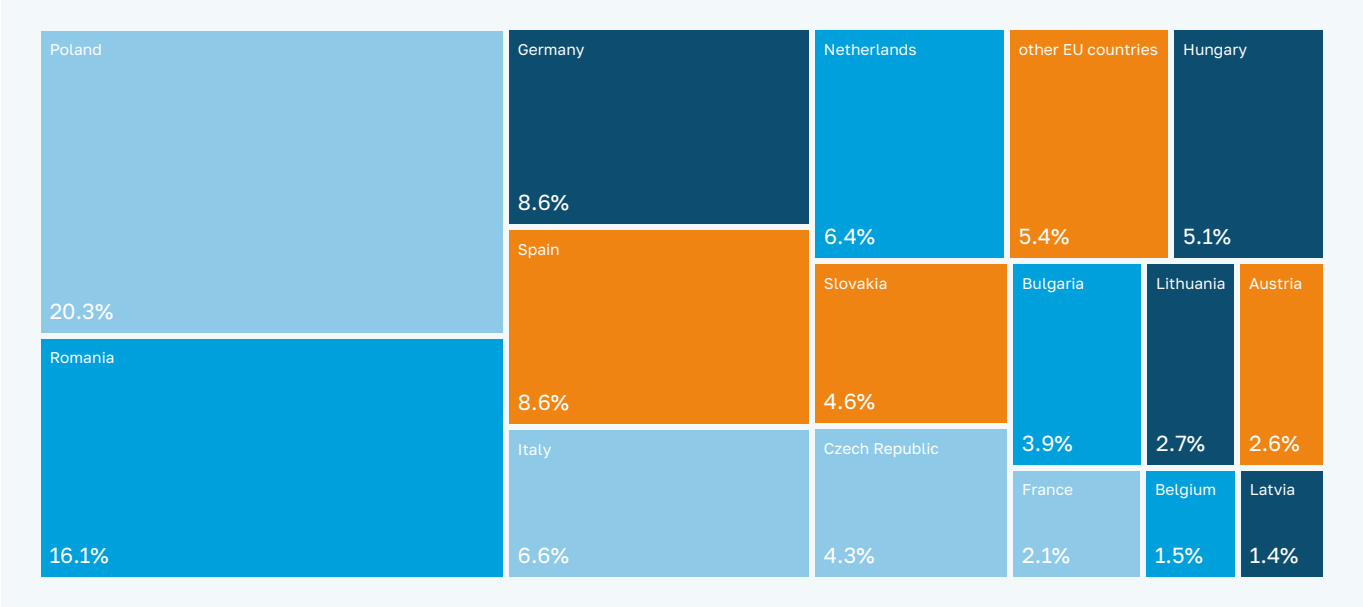


Fig. 1.6. Geographical structure of Ukraine's merchandise exports to the EU in 2023

Source: State Statistics Service of Ukraine. URL: https://www.ukrstat.gov.ua/

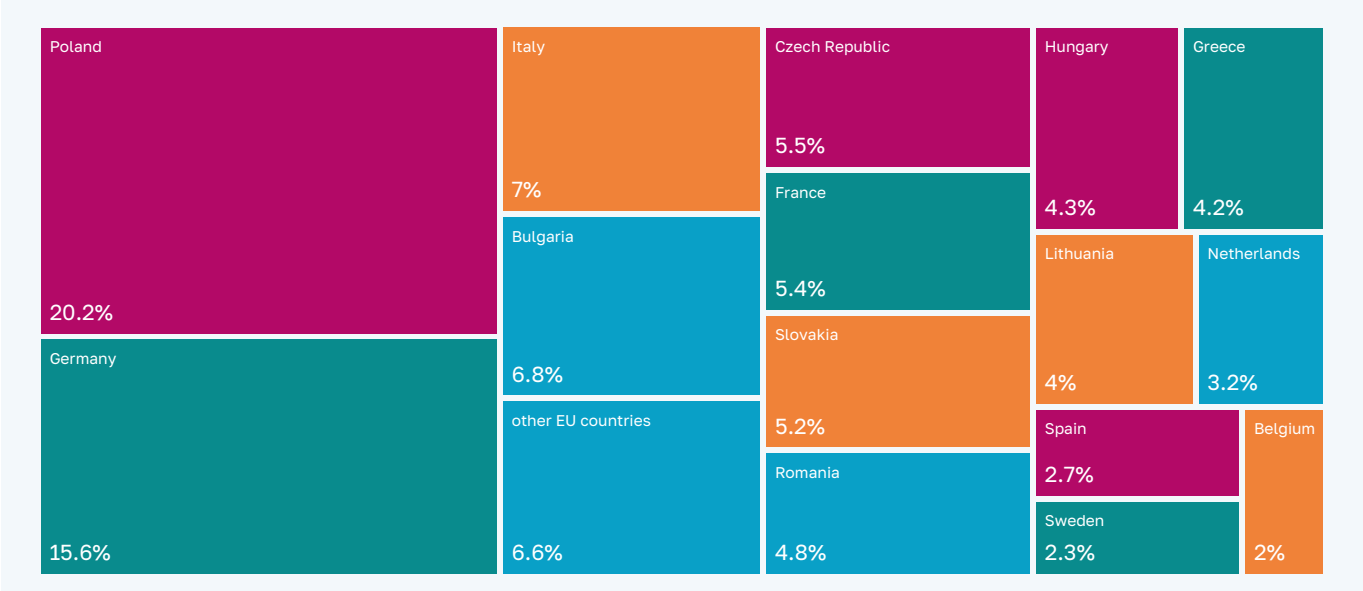


Fig. 1.7. Geographical structure of imports of goods into Ukraine from the EU in 2023

Source: State Statistics Service of Ukraine. URL: https://www.ukrstat.gov.ua/

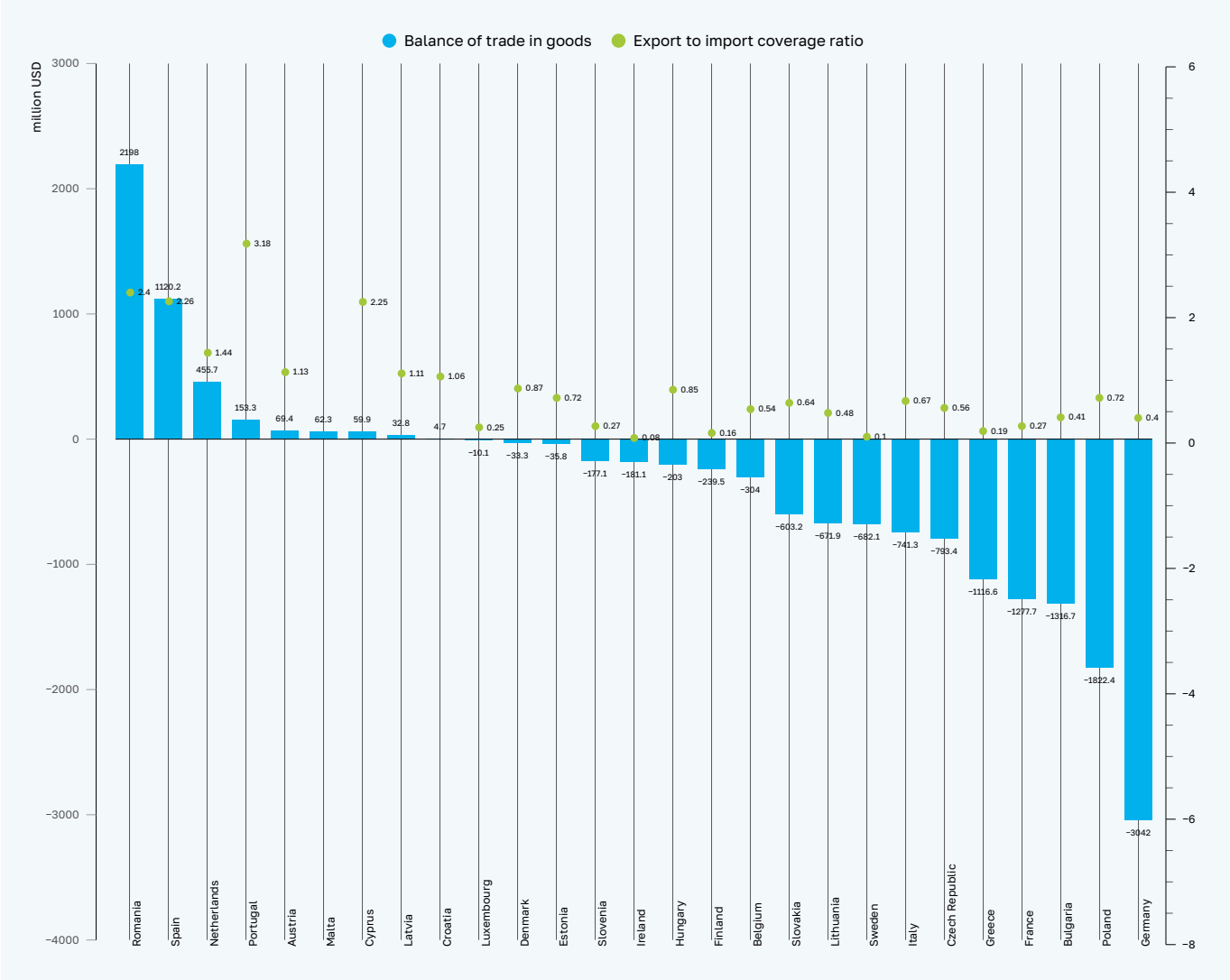


Fig. 1.8. Balance of Ukraine's foreign trade in goods with EU countries in 2023

Source: UNCTAD Stat. Merchandise trade matrix, annual. (Last updated 24 Oct. 2023). URL: https://unctadstat.unctad.org/datacentre/

As of 2023, Ukraine had a positive balance of foreign trade in goods with nine EU countries (in 2019, there were fourteen such partners among EU countries). Ukraine traditionally maintains the largest positive balance with Romania (almost 2.2 billion USD), Spain (1.1 billion USD), the Netherlands (455.7 million USD), Portugal (153.3 million USD), and Austria (69.9 million USD). Insignificant surpluses are also observed in trade with Malta, Cyprus, and Croatia (Fig. 1.8).

Ukraine has a negative balance in trade in goods with the remaining 18 EU countries. Among these states, Germany stands out in particular, with which Ukraine had a trade deficit of over 3.0 billion USD in 2023. The trade deficit with Poland, Greece, Bulgaria, and France exceeds 1 billion USD.

The least balanced are trade relations between Ukraine and Ireland, as domestic exports to this country cover only 8% of the value of imports coming from there (import-export coverage ratio 0.08). Also, extremely low values of this ratio are observed in trade with Sweden (0.1), Finland (0.16), Greece (0.19), and Slovenia and France (0.27 each). Foreign exchange earnings from exports of Ukrainian goods to Germany cover only 40% of the foreign exchange costs for imports of German goods to Ukraine.



1.2. Commodity groups in the focus of bilateral trade

Despite the negative factors affecting Ukraine's economy over the past decade, many domestic producers have successfully leveraged the liberalized access to the European market to expand their production and export potential. Key focus areas included agricultural and food industry products, for which the EU, under the Deep and Comprehensive Free Trade Agreement (DCFTA), introduced duty-free tariff quotas that were in effect from 2014 until June 2022, when the EU unilaterally suspended remaining barriers for Ukrainian producers. A total of 40 duty-free tariff quotas were provided, including 36 main quotas and 4 additional ones.

From the outset, it became clear that the allocated quotas were insufficient for several Ukrainian producers, as they were often exhausted within the first days, weeks, or months of the calendar year. Export volumes then significantly exceeded quota limits. (It is important to note that duty-free tariff quotas do not prohibit exports exceeding the allocated amounts; Ukrainian exporters can freely supply goods beyond the quotas, but these volumes are subject to general import duties.) Notable examples of this trend in certain years include products such as poultry meat, processed tomatoes, apple and grape juices, natural honey, sugar, butter, starch, and others.

In 2021, Ukrainian producers exported 53.8 thousand tons of natural honey to the EU with a quota of only 6 thousand tons, so exports above the tariff quota amounted to 88.8% of the total supplies of this product to the EU market. The duty on natural honey above the quota in the EU is 17.3%. With an average cost of domestic honey exported to the EU of 2.4 thousand USD per ton, the duty collected amounted to about 20.0 million USD. Exports of Ukrainian processed tomatoes to the EU reached 41.7 thousand tons in 2021 with a quota of 10 thousand tons and an import duty of 14.4% above the quota volume. With an average export value of processed tomatoes of 1.0 thousand USD per ton, the duty collected is estimated at approximately 6.1 million USD. Poultry meat exports to the EU from Ukraine in 2021 exceeded the quota by only 5.0 thousand tons; however, with an EU import duty of 299 euros/ton, the collected duties reached over 1.6 million USD (in 2019, when poultry meat exports reached 110 thousand tons with a quota of 18.4 thousand tons, the duty revenues amounted to 30.1 million USD).

Overall, an analysis of trade statistics with the EU revealed that Ukrainian exporters exceeding duty-free tariff quota volumes in their shipments to the EU contributed approximately $420 million in import duties to EU countries between 2017 and 2021.

Most producers continued exporting beyond the quotas despite these volumes being subject to import duties. For some, particularly producers of processed starch and its derivatives, these duties effectively blocked access to the European market. Thus, while the Association Agreement initially provided partial access to EU markets for certain Ukrainian food producers, the autonomous trade preferences granted by the EU in 2022 fully opened these markets, allowing Ukrainian exporters to realize their full export potential. Among those who benefited most were Ukrainian poultry producers (Figure 1.9).

According to Eurostat, in 2014, mass exports of poultry meat to the EU began, which by 2019 rose from 14.1 thousand tons to 110.0 thousand tons. This was facilitated by the establishment of a duty-free tariff quota of 16.0 thousand tons per year, which by 2021 was to gradually increase to 20 thousand tons. However, later an Agreement was signed in the form of an exchange of letters between Ukraine and the EU on amendments to trade preferences for poultry meat and processed poultry meat, which increased the volume of the quota starting in 2020. Thus, in 2020 it was 65.0 thousand tons, and from 2021 – 70 thousand tons.

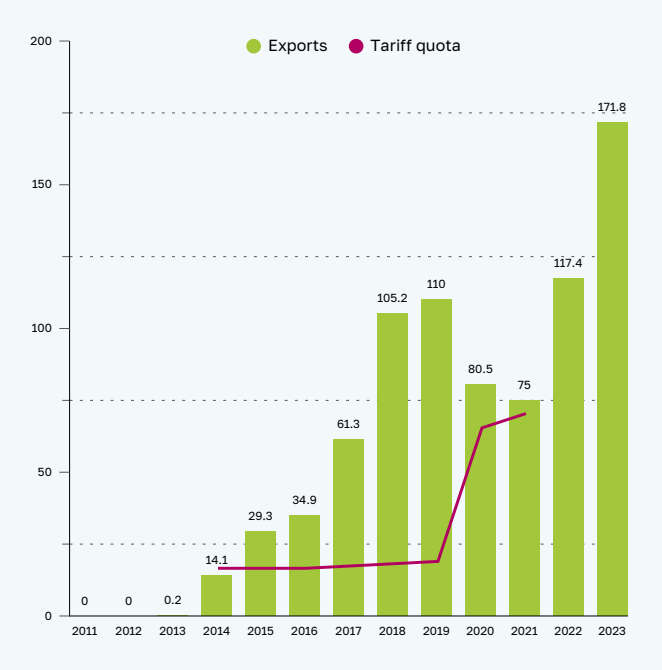


Fig. 1.9. Export of poultry meat (code 0207 under UKTZED) to the EU, thousand tons

Due to the crisis associated with combating the COVID-19 pandemic, poultry meat exports from Ukraine to the EU in 2020–2021 dropped to 75.0–80.5 thousand tons (which still exceeds the volumes of significantly increased tariff quotas). However, after the abolition of all barriers to access to the European market, Ukrainian poultry meat exports climbed to 117.4 thousand tons in 2022 and a record 171.8 thousand tons by the end of 2023. As a result, Ukraine took the first place among poultry meat suppliers to the European market from countries that are not members of the EU. In the structure of these imports, Ukraine accounted for 42.7% of poultry meat supplies to the EU in physical volumes in 2023 and 53.6% – in terms of value. Other suppliers of these products to the EU were the United Kingdom (36.1%) and Brazil (17.4%), the share of the rest of the world here remains insignificant.

Even more indicative is the dynamics of Ukrainian sugar exports to the EU before and after the abolition of trade barriers (Fig. 1.10).

In general, until 2014, Ukrainian sugar almost never entered the EU markets. Starting from 2015, Ukrainian sugar producers began to use a tariff quota, which allowed the annual supply of up to 20.07 thousand tons of Ukrainian sugar without paying an import duty (419 euros/ton of net weight). Statistical data for 2015–2021 indicate that export volumes during this period actually

fluctuated around the established quota within the range of 14.8–26.9 thousand tons. However, in 2022, these exports soared to 146.7 thousand tons, and in 2023 – to 484.5 thousand tons. In the first quarter of 2024, Ukrainian sugar exports to the EU amounted to almost 146.0 thousand tons, which is 16.7% more than in the same period of the previous year.

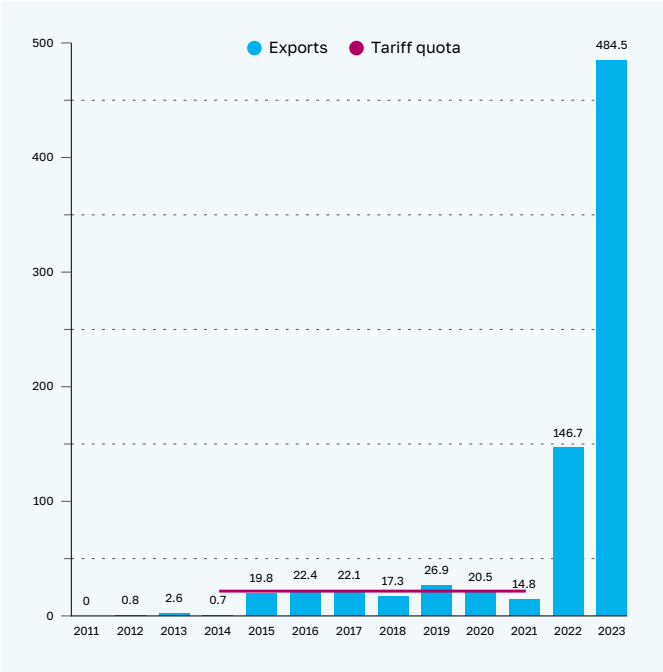


Fig. 1.10. Sugar exports (code 1701 99 under the UKTZED) to the EU, thousand tons

Source: Eurostat.

In 2023, Ukraine became the largest exporter of sugar to the EU from among the countries that are not part of this integration association. Ukraine accounted for 36.6% of imports, if considered in physical volumes, and 36.2% – in terms of value. The main competitors in sugar supplies to the European market for Ukraine are Mauritius with a share of 8.8%, Brazil (8.2%), Cambodia (7.2%), and Guatemala (5.8%). It should be noted that these countries supply primarily sugar from cane, not from beet. In this regard, Ukraine's leadership in the segment of beet sugar supplies to the EU is indisputable.

Ukraine also stably remains a significant supplier of natural honey to the EU. The initial duty-free tariff quota for this product was only 5,000 tons and was supposed to gradually increase to 6,000 tons by 2021. In 2017, the European Union introduced an additional temporary quota (for 3 years) of 2,500 tons, which did not have much of an impact, considering that during 2011–2021, honey exports from Ukraine to the EU increased more than tenfold – from 5,000 to 53,800 tons. This was facilitated, among other things, by the fact that the EU import duty on natural honey above the quota is only 17.3% (Fig. 1. 11).

After the large-scale invasion, Ukrainian exports of natural honey to the EU decreased slightly, but remain quite significant – 45.8–46.1 thousand tons in 2022–2023. Among non-EU countries, Ukraine was second only to China in terms of honey supplies to the EU market in 2023, with Chinese exports of 60.0 thousand tons, and its share, respectively, was 36.7%. Ukraine's share was 28.0%. Other significant suppliers of honey to the EU are Argentina (12.5%), Mexico (6.5%), and Cuba and Vietnam (2.9% each). It should also be noted that in the EU itself, consumption of imported natural honey has decreased somewhat in recent years. Thus, honey imports peaked at 208.7 thousand tons in 2017 and have since fallen to 163.5 thousand tons in 2023 (–21.7%).



Fig. 1.11. Export of natural honey (code 0409 under UKTZED) to the EU, thousand tons

Source: Eurostat.

Ukrainian exports of apple and grape juices to the EU also increased considerably in 2022–2023, reaching 54.6–79.0 thousand tons. However, this growth occurred in regard to the decline in supplies in 2020–2021, which then amounted to 24.9–31.4 thousand tons. The largest volumes of fruit juice exports from Ukraine to the EU were recorded back in 2013–2015, when they reached 69.7–83.8 thousand tons. This indicates that domestic juice producers had serious positions in the European market even before the entry into force of the Association Agreement, and the provision of tariff quotas had an insignificant impact on their real access to this market. Global trends in healthy eating, which are changing the configuration of the juice market, have a much greater effect (Fig. 1. 12).

Ukrainian juice producers are competing for access to the European Union market in a situation where the population of many of its countries is starting to give preference to low-sugar drinks, and hence the global trend in fruit juice consumption and trade is rapidly declining. Yet even under such conditions, Ukraine is the leader in the supply of fruit (primarily apple) juices to the European market among countries that are not members of the EU. It accounted for 46.8% of such supplies in 2023. Other countries with significant volumes of apple juice supplies to the EU are Moldova (20.9%) and Turkey (15.9%).

The suspension of tariff quotas contributed to a significant increase in Ukrainian starch exports to the EU. Domestic producers began mass exports of starch (first the corn one and then also the potato one) to the European market in 2017. However, during 2017–2020, the corresponding supplies actually came up against

the quota volumes (10 thousand tons per year). Apparently, the import duty, which is effective when the quota is exceeded – 163 euros/ton – did not allow Ukrainian starch producers to compete on the EU market. In 2021, starch exports to the EU reached 13.4 thousand tons despite the quota, and after its abolition, they climbed to 20.0–25.8 thousand tons in 2022–2023 (Fig. 1.13).

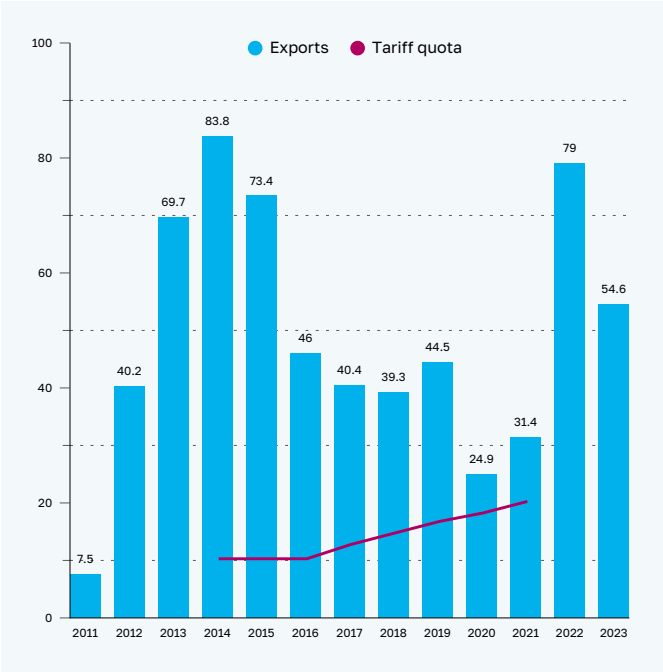


Fig. 1.12. Export of fruit juices (codes 2009 61-79 under UKTZED) to the EU, thousand tons

Source: Eurostat.

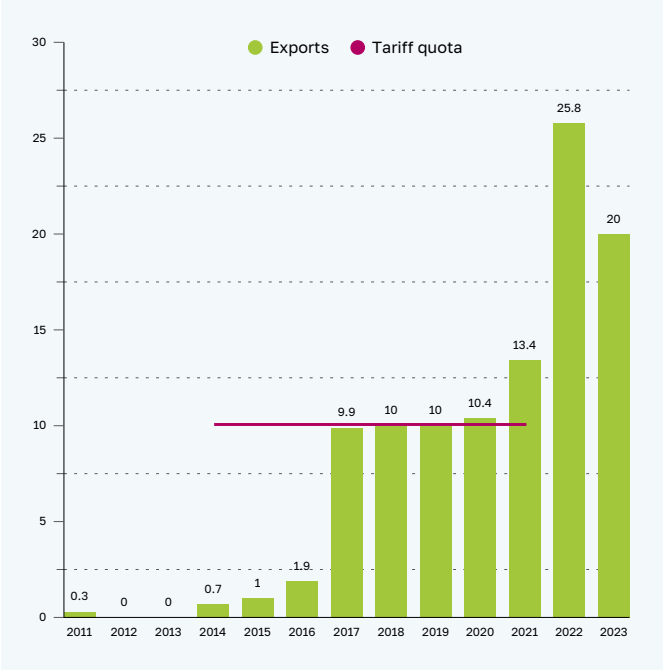


Fig. 1.13. Starch export (code 1108 under UKTZED) to the EU, thousand tons

Source: Eurostat.

In 2023, among non-EU countries, Ukraine was in third place among starch suppliers to the relevant markets with a share of 13.5%. The first two places were held by Serbia (33.1%) and Thailand (25.2%). Egypt (5.4%), Vietnam (5.2%), Britain (3.5%), and Turkey (2.7%) also have a substantial share in these supplies.

It is also necessary to emphasize the positive dynamics of Ukrainian exports of processed starch products (code 3505 under the UKTZED) to the EU countries. Starting in 2017, it grew from 354.5 tons to 18.8 thousand tons in 2023. Exports of starch processing products to the European market were carried out despite the meager volumes of the tariff quota, which increased from 1.0 thousand to 2.0 thousand tons during the period of 2016–2021.

Ukrainian producers of processed tomatoes were subjected to actual devastation by the large-scale invasion, which also affected the decline in export supplies of the relevant products to the EU (Fig. 1.14).

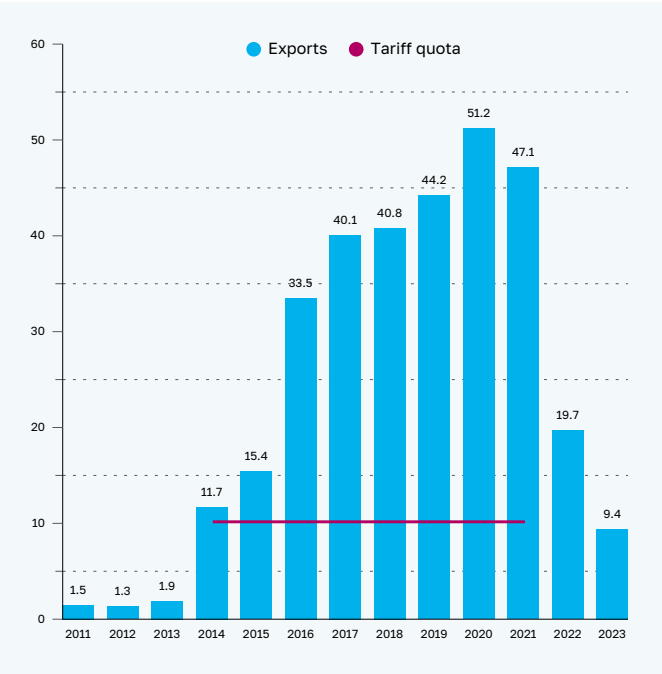


Fig. 1.14. Export of processed tomatoes (code 2002 under UKTZED) to the EU, thousand tons

Source: Eurostat.

The partial liberalization of the EU market thanks to the DCFTA agreement provided Ukrainian processed tomato producers with a duty-free tariff quota of 10,000 tons per year since 2014. Since then, supplies have significantly exceeded the quota and reached 47.1 thousand tons in 2021. The duty on supplies above the quota was 14.4%. But the temporary occupation of most of the Kherson region, where a third of tomatoes in Ukraine are grown, deprived processors of access to raw materials and partly to production facilities, and their supply has therefore sharply decreased. In 2022, processed tomato exports to the EU fell to 19.7 thousand tons, and in 2023 – to 9.4 thousand tons.

It should be noted that in the first quarter of 2024, there were positive trends regarding the recovery of Ukrainian exports of processed tomatoes to the EU, as exports reached nearly 9.3 thousand tons, which was 14.3 times higher than the corresponding shipments for the same period of the previous year.

However, it should be emphasized that the revival of Ukrainian exports to the EU for these food industry product groups does not indicate a premature development of domestic production in 2022–2023. In reality, the increase in shipments to the EU allowed Ukrainian producers to at least partially offset losses due to the sharp contraction of the domestic market (according to the latest UN estimates, the number of refugees from Ukraine has reached 6.2 million people), primarily for poultry, and exports to other countries and regions of the world, due to the inability to export products as a result of the blockade or occupation of Ukraine's seaports. Overall, total exports from Ukraine for all food industry product groups (excluding sugar and apple juice) in 2022–2023 were significantly lower than before the full-scale invasion.

On the other hand, the rapid reorientation of Ukrainian food exporters to the EU created tensions in trade and economic relations in some «sensitive» markets, which could not withstand the influx of highly competitive products, now devoid of tariff quota protection. As a result, although the European Parliament reached an agreement in April 2024 to extend temporary unilateral trade preferences for Ukraine until June 5, 2025, certain reservations were introduced. The new regulation provides for the automatic reinstatement of import duties on Ukrainian goods if their import exceeds the established duty-free volume, calculated based on historical import values (the average for the two and a half years: the second half of 2021 – 2023).

Corresponding precautionary measures have been introduced for poultry, sugar, natural honey, eggs, oats, corn, and cereals. The dynamics of Ukrainian exports to the EU for these groups of goods in the first half of 2024 compared to the average values for the previous 2.5 years indicates that by the end of this year, all these goods will likely return to the trade regime with the use of import duties.

It should be indicated that on June 19, 2024, the EU already restored the tariff quota for Ukrainian oats, which will amount to 4 thousand tons until June 5, 2025, and on July 2, quotas were introduced for sugar, eggs, and albumins. At the same time, until the end of this year, sugar and eggs will be imported into the EU with the payment of import duties under the most-favored-nation regime (for sugar, the corresponding duty is 419 euros/ton; for eggs and albumins – from 304 to 1423 euros/ton). For the period from January 1 to June 5, 2025, the new duty-free volume for sugar will be 109.4 thousand tons, while for eggs and albumins – 9.66 thousand tons.

This will be particularly damaging for producers of processed agricultural goods – sugar and poultry meat. The least obstacles to access to the EU market when tariff quotas are restored will be felt by corn exporters, since the EU has a 0% import duty on this product under the erga omnes regime. The relevant indicators of new EU trade restrictions are summarized in Table 1.4.

As can be seen from Table 1.4, the new established limits allocated until the end of 2024 are generally larger than the volumes of duty-free tariff quotas that had been in effect before the introduction of the EU autonomous trade preferences in 2022, with the exception of oats (the supplies of which to the EU in 2023 were lower than the new limit). On the other hand, the limit for poultry meat for 2024 have restrained supplies compared to the previous year by 37.2 thousand tons (21.7%), for natural honey – by 1.2 thousand tons (2.6%), and for cereals – by 5.4 thousand tons (28.3%). The biggest blow, of course, fell on sugar exporters, for whom the new EU limit constrained supplies compared to 2023 by 221.9 thousand tons (45.8 %).

It should be stated that, in order to meet halfway with its European partners, the Government of Ukraine adopted Resolution No. 612 of 30.05.2024, which introduced licensing of exports of certain products to EU member states from July 1. Among other things, the licensed volume of the quota for meat and edible by-products of poultry (domestic chickens, ducks, geese, and guinea fowls) was set at 133.28 thousand tons, and for meat and edible by-products of turkeys – at 3.76 thousand tons. Thus, in essence, a «voluntary» export limitation was introduced in order to avoid the resumption of restrictive measures (import duties for products imported above the new limits) by the EU.

In addition to food producers, a number of manufacturers in the processing industry have significantly expanded their presence on the European market over the past decade. Among them, wooden furniture manufacturers (products under UKTZED codes 9403 30–60) occupy a prominent place. In the period before the

Table 1.4.
Indicators of new restrictions on the import of certain Ukrainian agricultural products to the EU, introduced in June 2024

(thousand tons)

Commodity groups	Tariff quotas under the DCFTA	EU's import from Ukraine in 2023	Limits by the end of 2024*	The gap between the new limit and import volume in 2023
Poultry meat	70,0 (+20,0)	172,7	137,0	-35,7
Eggs and albumins	3,0 (+3,0)	39,7	23,2	-16,5
Sugar	20,07	484,5	262,6	-221,9
Natural honey	6,0	45,8	44,4	-1,4
Oats	4,0	1,8	2,4	0,6
Corn	650,0	12 939,3	11 155,4	-1 783,9

Note:

1. The limits correspond to the average annual imports of the relevant products into the EU from Ukraine during the period from 01.07.2021 to 31.12.2023.

Source: European Commission. Quantities referred to in Article 4(7) of the Regulation on Autonomous Trade Measures on imports from Ukraine. http://agroconf.org/sites/default/files/quantities_referred_to_in_article_4_paragraph_7_of_the_autonomous_trade_measures_0.pdf

conclusion of the Association Agreement, Ukrainian furniture exports to the EU were insignificant and going down gradually – in 2013 they amounted to only 8.9 thousand tons. However, starting from 2014, the corresponding deliveries began to gradually increase, including due to the establishment of collaboration with global manufacturers (IKEA) and an increase in presence at international exhibitions and fairs. According to the results of 2021, Ukrainian exports of wooden furniture to the EU reached 179.9 thousand tons, and the EU's share in total wooden furniture exports from Ukraine was 88.0%; total furniture exports from Ukraine this year exceeded 1 billion USD (Fig. 1.15).

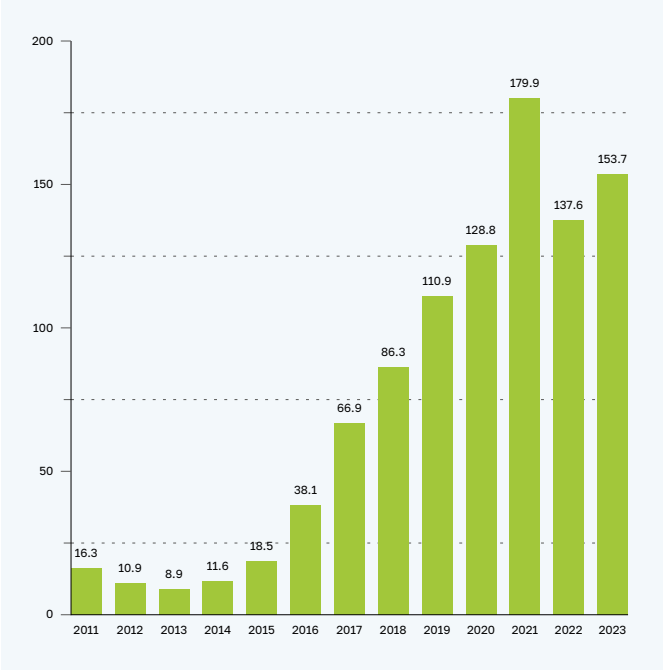


Fig. 1.15. Exports of wooden furniture (codes 9403 30-60 under UKTZED) to the EU, thousand tons

Source: Eurostat.

In 2022–2023, exports of wooden furniture from Ukraine to the EU countries dropped to 137.6–153.7 thousand tons (–14.5% compared to 2021). This was due to the fact that, in the conditions of the large-scale invasion, part of the forests was mined, and a number of enterprises in the industry reoriented themselves to the production of goods for military needs; were relocated, accordingly reducing their production processes for some time; and rebuilt the supply chains of raw materials and semi-finished products, primarily refusing to import chipboard, MDF, and plywood from belarus. To this end, they intensified utilization of domestically made wood products and organized supplies of MDF from Poland, Germany, and Turkey and plywood from Latvia, Estonia, and China.

In 2023, Ukraine remained the second largest supplier of wooden furniture to the European market from outside the EU after the PRC. In the first quarter of 2024, Ukrainian exports of wooden furniture to the EU amounted to 38.8 thousand tons, which is 4.3% more than in the same period of the previous year. Thus, the industry as a whole is actively developing and dynamically recovering after the shock of the large-scale invasion.

Another manufacturing industry in Ukraine, whose products have begun to enter the EU market over the past decade, is the cement industry. Back in 2011–2014, supplies of Ukrainian Portland cement to the EU were extremely low and sporadic (from 2.7 thousand to 31.4 thousand tons per year). Since 2015, they have begun to grow and as of 2022 reached 952.8 thousand tons, and after a slight decline in 2022, exports of Portland cement to the EU exceeded 1 million tons in 2023 (Fig. 1.16).

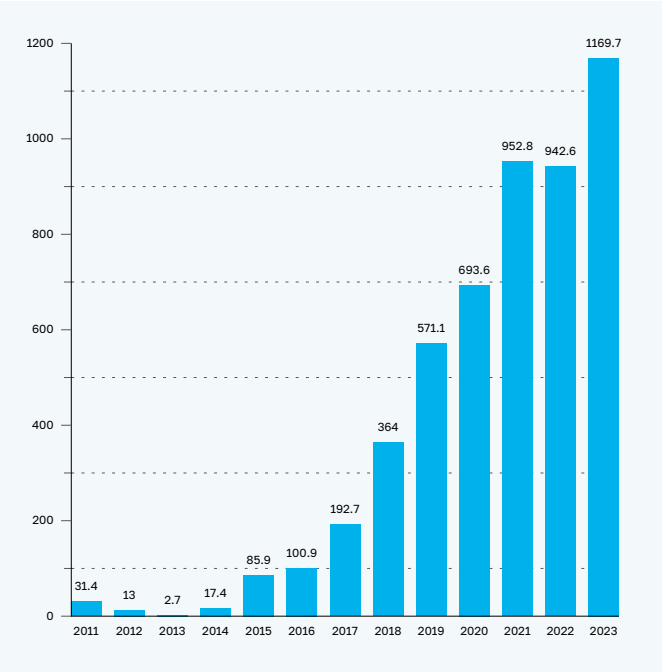


Fig. 1.16. Export of Portland cement (code 2523 under UKTZED) to the EU, thousand tons

Source: Eurostat.

It should be indicated that the cement industry in Ukraine is mainly oriented (over 90% of production) towards the domestic market. Therefore, the boost in supplies to the EU will only partially compensate for the decline in domestic demand for cement in Ukraine. In 2022, domestic cement production dropped by 51% compared to 2021. Given the significant reduction in cement consumption in Ukraine after the russian invasion, exports have become a considerable support for Ukrainian producers. The dynamics of cement exports in 2022–2023 show that Ukrainian producers continue to support their production through supplies to the EU after fully supplying the significantly reduced domestic market. At the same time, cement exporters are increasingly faced with the problem of finding ways to improve the efficiency of composite Portland cements in order to reduce CO_2 emissions into the atmosphere.

Seamless ferrous metal pipes play an important role in the structure of Ukrainian industrial exports to the EU. During 2011–2018, exports of these products to the European market had grown from 60.5 thousand to 133.7 thousand tons. Since in 2018 the EU introduced tariff quotas for a number of metallurgical products (including seamless ferrous metal pipes) and a 25 percent duty on supplies exceeding the quota, Ukrainian exports of seamless pipes to the EU went down to 114.5–116.6 thousand tons in 2019–2021 (Fig. 1.17).

In 2022–2023, exports of seamless ferrous metal pipes from Ukraine to the EU fell to 85,000 tons. According to GMK Center, this drop was conditioned by the logistical problems of the

industry, missile strikes on energy infrastructure facilities and the resulting restrictions on electricity supply, as well as the increase in logistics costs, which affected the cost price and overall price competitiveness of metallurgists. Along with this, a significant destructive factor is the growing dumped imports from China both to Ukraine and to the EU countries. Despite this, Ukraine remains the second largest supplier of seamless pipes to the EU after the PRC among countries outside this association with a share of 16.9% in imports. In addition, in the first quarter of 2024, Ukraine supplied 35.1 thousand tons of seamless ferrous metal pipes to the EU countries, which is 1.5 times more than in the same period of the previous year.

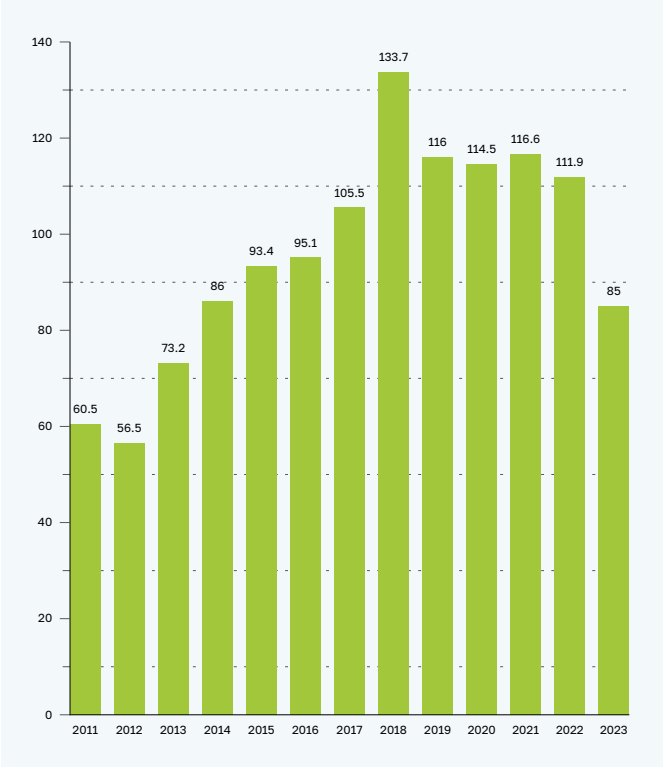


Fig. 1.17. Export of seamless pipes (code 7304 under UKTZED) to the EU, thousand tons

Source: Eurostat.

Finally, it is worth noting the positive dynamics of exports to the EU of Ukrainian wheelsets for railway cars (code 8607 19 under UKTZED). During the period of 2011–2021, the corresponding deliveries rose from 20.9 to 58.5 thousand tons. Difficulties with production processes, as well as transportation and logistics in 2022–2023, led to a reduction in exports to the EU to 44.8–45.3 thousand tons. In turn, this resulted in a deficit in the European railway wheel market, since about 50% of this market in the EU is formed due to import supplies from third countries, among which Ukraine is the largest supplier of these products with a share of 36.9% in 2023. In certain segments, such as railway wheels for freight railcars, Ukraine's share reaches 50%.

The importance and in some segments the lack of alternatives of Ukraine as a supplier of wheelsets for European railways determines the prospect of a quick resumption of exports of these products to the EU. Thus, in the first quarter of 2024, domestic exports to the EU countries under the UKTZED code 8607 19 amounted to 15.05 thousand tons, which is 37.1% more than in the same period of the previous year (10.97 thousand tons).

In general, the analysis of bilateral trade between Ukraine and the EU has shown the presence of a number of commodity groups that have retained, and in some cases significantly strengthened, their trade and political significance for both parties. Further expansion of trade and economic relations with the EU countries in the relevant commodity groups and sectors remains a vital condition for the survival of the Ukrainian economy, in particular as a source of partial compensation for losses associated with the destructive consequences of large-scale aggression and as a factor in preserving the country's production potential, jobs, and inter-industry ties in the context of a shrinking domestic market, as well as a tool for transiting products to third countries in the context of a significant complication of logistics along traditional maritime trade routes. It is in the national economic strategic interests of Ukraine to convince European partners of the need to maintain the most liberalized access of relevant domestically made products to the EU market. Table 1.5 summarizes the list of relevant commodity groups, which were identified based on the outperforming dynamics of exports from Ukraine to the EU and the high share of Ukrainian products on the European market. These groups were also identified as the most promising in terms of exports to the EU in the short term.



Table 1.5. Identified list of top-priority commodity groups for the development of trade relations between Ukraine and the EU based on indicators of domestic exports' activation

UKTZED code	Commodity group
0207	Meat and edible offal of poultry, fresh, chilled or frozen
0407 21	Eggs of domestic chickens
0409	Natural honey
0811	Frozen berries; preserves and jams (raspberries, currants, gooseberries, blackberries, mulberries, etc.)
1108	Starch
1701 99	Sugar from sugar beet
1704	Confectionery products made of sugar without cocoa content
1806	Chocolate and other prepared food products containing cocoa
1902	Pasta products
1905 31–32	Dry sweet biscuits; waffles, waffle wrappers
2002	Tomatoes, cooked or canned without the addition of vinegar or acetic acid
2009 61–79	Grape and apple juices
2207	Ethyl alcohol
2523	Portland cement
3925	Plastic products: doors, windows and their frames, plat bands and thresholds
4412 33	Glued plywood
4415 20	Wooden pallets; wooden shells
4818 10–20	Paper towels, napkins, handkerchiefs; toilet paper
7010	Glass containers (bottles, jars, cans)
7217	Wire of iron or non-alloyed steel
7304	Pipes, tubes and profiles, hollow, seamless, of ferrous metals
7308	Metal structures and parts thereof; articles intended for use in metal structures
7601 20	Aluminum alloys
8516 71	Electric water heaters for making coffee or tea
8526 92	Radio remote control equipment
8531 10	Electrical alarms for protection against theft or fire and similar devices
8537	Consoles, panels, consoles, tables, switchboards and other bases for the control or distribution of electric current
8607 19	Wheelsets, wheels and parts thereof for railway locomotives and rolling stock
8703	Passenger cars
9401	Furniture for seating
9403 30–60, 90	Wooden furniture used in institutions, shops, kitchens, bedrooms, other living rooms; parts thereof
9405	Lighting equipment



1.3. Prospective directions for replacing EU imports from the russian federation, belarus, and other countries with Ukrainian goods

European Union countries are significantly oriented towards the import of goods and services. According to World Bank data, EU's real imports (in constant 2015 prices) grew 1.5 times from 2008 to 2023. Meanwhile, the import-to-GDP ratio increased from 40.2% to 49.0% during this period, reaching 54.5% in 2022 (Fig. 1.18). For comparison, the global average import-to-GDP ratio in 2023 was only 28.7%. Undoubtedly, the high import orientation of EU countries is partly explained by the high degree of integration among member states within the common market. In 2023, 56.2% of the EU's imports were within «intra-block» trade, i.e., between partner countries in the integration union. However, if we consider only EU imports from third countries, they amounted to 3.0 trillion USD in 2023, with 1.94 trillion USD (64.67%) representing imports of manufactured products.

Ukraine's share in EU countries' imports of the manufactured goods from third countries in 2023 was a meager 0.45%. Against the backdrop of deployment of the large-scale war, the dynamics of this indicator is negative – in 2021, the corresponding share was 0.82%. At the same time, the current geopolitical situation opens up opportunities for Ukraine to increase its presence in the European market, replacing a number of foreign analogues with domestic goods.

Firstly, an effective way to expand the presence of Ukrainian producers in EU markets is to replace products that were, or continue to be, supplied from aggressor countries (russian federation, republic of belarus).

Secondly, it seems promising for Ukraine to use the opportunities offered by the EU's policy **of open strategic autonomy**, which is gaining momentum against the backdrop of aggravation of geoeconomic contradictions in the world and the associated threat of disruptions in global supply chains. The European Commission defines the strategic autonomy as: ««the ability of the European Union to make its own choices and shape the world around it through leadership and engagement that reflects its strategic interests and values»[2]. This policy emphasizes the need to strengthen the EU's competitiveness and resilience in global trade, protecting the principles of sustainability and fairness in trade and economic relations with third countries and opposing their unfair competitive practices on the world market.

The implementation of the strategic autonomy ideas involves the reorientation of international value chains with a decrease in economic dependence on geopolitical competitors and the establishment of closer trade and investment cooperation with

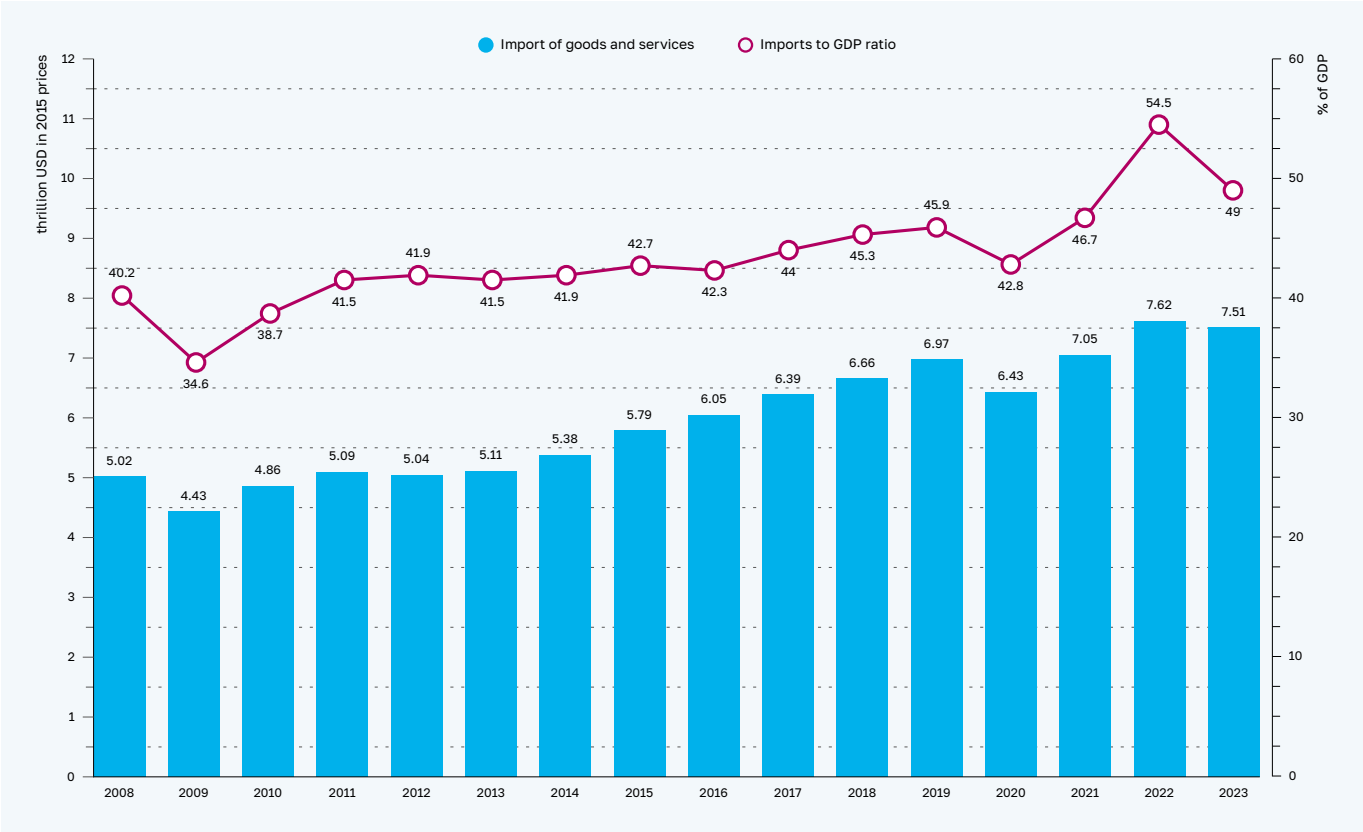


Fig. 1.18. Dynamics of real imports of goods and services and its ratio to GDP in the EU during 2008–2023

Source: The World Bank data. Imports of goods and services (constant 2015 US$) – European Union.

URL: https://data.worldbank.org/indicator/NE.IMP.GNFS.KD?_gl=1%2A1rgs1pz%2A_gcl_au%2AMTIwODY1MDI4OS4xNzI2MDU0MDky&locations=EU

Imports of goods and services (% of GDP) – European Union https://data.worldbank.org/indicator/NE.IMP.GNFS.ZS?_gl=1*1rgs1pz*_gcl_au*MTIwODY1MDI4OS4xNzI2MDU0MDky&locations=EU

2 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (Brussels, 18.2.2021 COM (2021) 66 final): Trade Policy Review - An Open, Sustainable and Assertive Trade Policy. https://eur-lex.europa.eu/resource.html?uri=cellar:5bf4e9d0-71d2-11eb-9ac9-01aa75ed71a1.0001.02/DOC_1&format=PDF

geographically closer neighboring countries that share common values and approaches to fair trade and competition. Examples of such a policy at the current stage include, in particular:

Nearshoring – a strategy of moving production facilities and business processes to neighboring countries, often with a common border, which accelerates market entry and reduces transport leverage in international supply chains and the associated negative effects (in particular, greenhouse gas emissions from transportation) and security risks;

Friendshoring – redirecting supply chains to countries that are considered politically and economically friendly and to countries with a low risk of disruption of trade and economic ties. This approach is becoming especially widespread in light of the consequences of the COVID-19 pandemic, sanctions against the russian federation, and increasing tensions in relations between Western countries and China.

Due to its geographical location and active European integration as a candidate for EU accession, Ukraine appears to be one of the most obvious and natural partners of the EU in implementing the course of open strategic autonomy. Let us consider further real examples of in which sectors and niches Ukrainian producers can replace other exporting countries with their goods on the European market.

The key item of EU imports from the russian federation has always been energy resources – oil, natural gas, coal, and various refined petroleum products. During 2011–2023, the share of the relevant goods in the value of EU imports from the russian federation was within 65.9–84.4%. Even according to the results of 2022, energy imports to the EU from the russian federation amounted to 155.1 billion USD, with total imports of goods of 194.7 billion USD. Even before the large-scale invasion, the EU countries provided the russian federation with 57.9% of export revenues from the sale of hydrocarbons (Fig. 1.19).

At the same time, the EU has seen the demand for some agricultural and industrial goods produced outside the energy sector. The value of imports of such products in 2011–2022 was in the range of 30.4–51.6 billion USD per year, significantly exceeding European imports of goods from Ukraine.

The structure of non-energy imports of the EU from the russian federation before the start of the winding down of trade and economic relations between them (2021) was dominated by ferrous and non-ferrous metals and products made of them (34.5%), products of the chemical and related industries (12.6%), precious metals and stones, products made of them (10.6%), products of the woodworking industry (7.2%), products of the agricultural and food industry (6.2%), polymeric materials, rubber, and plastics and products made of them (5.7%), and products of mechanical engineering and instrument-making (4.7%).

A number of ferrous metallurgy products, urea, and ammonia are at the intersection of international specialization of Ukraine and russian federation, being in demand in the EU. These include, first of all, semi-finished products made of carbon steel (code 7207 under the UKTZED), hot-rolled flat products (7208), carbon steel bars and rods (7214) and cast iron (7201), urea (3102), and ammonia (2814). Thus, in 2021, the EU accounted for 37.2% of russian exports of hot-rolled products, 33.8% of exports of semi-finished products made of carbon steel, 21.2% of exports of cast iron, and 19.0% of exports of carbon steel bars and rods. Exports for these four items to the EU in 2021 brought russia foreign exchange earnings worth 5.7 billion US dollars.

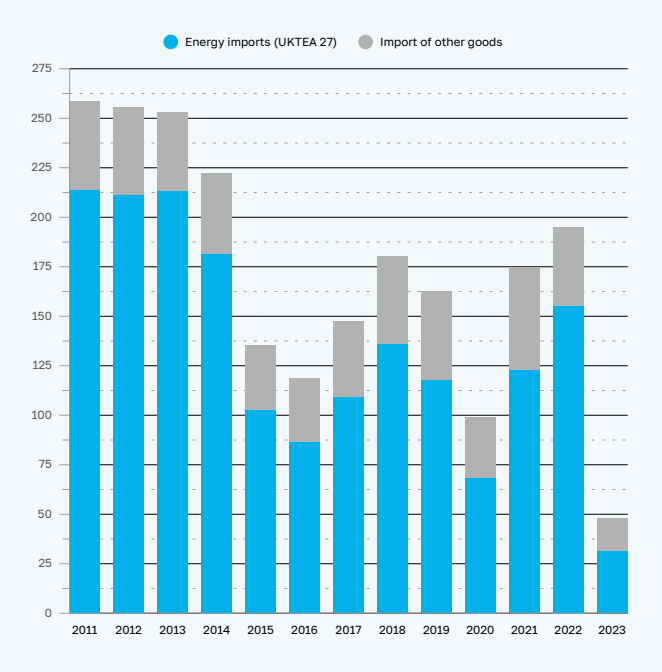


Fig. 1.19. Imports of goods into the EU from the russian federation, billion USD

Source: Eurostat.

Non-ferrous metals in 2021 accounted for about half of the EU's metallurgical imports from russia, while in Ukraine non-ferrous metallurgy is less developed, accounting for only 4.1% of total base metal exports. However, Ukrainian producers specialize in some types of non-ferrous metal products that the EU imported from the russian federation in significant volumes before the large-scale invasion. These are primarily aluminum alloys (code 7601 20 under the UKTZED), rods and hollow sections made of these alloys (7604 21–29), and to a lesser extent, rods and sections made of copper alloys (7407 21).

About a third of European imports of chemical products from the EU in 2021 were fertilizers – primarily fertilizers containing three nutrients: nitrogen, phosphorus, and potassium (code 3105 20 under the UKTZED), and urea (3102 10). Ukrainian fertilizer exports have significantly dropped during the analyzed period. In particular, in 2012–2021, urea exports went down from 3.5 million to 1.2 million tons, while exports of fertilizers, containing nitrogen, phosphorus, and potassium, collapsed from 193,000 to 0.6 thousand tons. After the large-scale invasion, exports of these commodity groups almost completely stopped. However, when domestic fertilizer supplies did take place, about a third of them went to EU countries.

Nevertheless, the export of mineral fertilizers from the russian federation to the EU remained consistently high and brought the aggressor an additional 1.5 billion USD of revenues in 2023 alone, which became the basis for the russian federation's military budget.

Therefore, provided that uninterrupted electricity generation is restored in Ukraine and European approaches to pricing in the electricity market for industry are introduced, Ukrainian fertilizer producers will be able to resume their production in the future and occupy the niche in the EU market that the russian federation currently has. For the metallurgical industry, an important prerequisite in this context is the restoration of stable access to supplies of coking coal and scrap metal of domestic production.

Until 2021, the russian federation remained the largest supplier of wood processing products to the EU. Its specialization in this industry is focused on unprocessed timber (code 4403 under the UKTZED), sawn softwood and birch wood (4407), fiberboard (4411) and particleboard (4410), glued plywood (4412), wood chips (4401 21), and pellets (4401 31). Wooden pallets (4415 20) also played a significant role in supplies to the EU.

Ukraine currently has a moratorium on the export of unprocessed timber, which eliminates interest in occupying russian niches in the EU timber raw material markets. In turn, the moratorium has ensured the active development of wood processing in Ukraine, thanks to which the woodworking industry demonstrates one of the highest growth rates compared to other industrial sectors. In the current conditions, stability in the industry is facilitated by the geographical location of most production facilities in the western territories, where there are no hostilities. Therefore, Ukrainian manufacturers will have a significant interest in replacing russian supplies of glued plywood to the EU with their products (exports from the russian federation to the EU in 2021 amounted to 749.6 thousand tons, while from Ukraine – 88.6 thousand tons), particle boards (russia supplied the EU with 166.8 thousand tons of particle boards in 2021, Ukraine – with 212.0 thousand tons), MDF (exports from russia to the EU amounted to 117.9 thousand tons, from Ukraine – 35.5 thousand tons), and wooden pallets (exports from russia to the EU – 81.5 thousand tons, from Ukraine – 341.9 thousand tons).

Until recently, polymers in primary forms and some products from them played a noticeable role in imports to the EU from the russian federation. Among these products, Ukraine has competitive advantages in the international markets of ethylene polymers (UKTZED code 3901 20), vinyl chloride (3904), and various polymer films (3920). Although the EU is not the main sales market for these products for russian manufacturers, they occupied a larger share in it than Ukrainian ones. Thus, in 2021, EU countries imported 206.2 thousand tons of ethylene polymers from the russian federation, and only 36.0 thousand tons from Ukraine. As for vinyl chloride polymers, the EU imported 37.0 thousand tons of these products from the russian federation and 131.4 thousand tons from Ukraine. Imports of polymer films to the EU from the russian federation during the specified period amounted to 64.6 thousand tons, while from Ukraine – only 16.5 thousand tons. Therefore, Ukrainian producers of primary polymers and products made from them can significantly expand their positions in the European market by taking the share of russian producers.

russia maintains significant competitive positions in the global car tire market (code 4011 under the UKTZED), including in the EU. Thus, in 2021, the EU imported more than 11.8 million pneumatic rubber tires from the russian federation, while from Ukraine - less than 1.1 million pieces. It should be noted that Ukrainian tire exports in 2015–2021 had grown from 1.6 to 2.5 million tires. Ukrainian manufacturers restored their pre-crisis export volumes of 2014–2015, despite the fact that they had to reorient themselves from the russian market to the markets of other countries. Along with this, it should be noted that in the conditions of the large-scale invasion, these exports dropped to 599,000 pieces in 2023. Nevertheless, Ukraine's production and export potential in this area is sufficient to partially replace russian suppliers on the European market in the future.

Mechanical engineering and instrument-making products have always occupied marginal positions in russian commodity exports to the EU. The exceptions were certain commodity groups, such as turbojet engines (code 8411 12 under the UKTZED), with 27 units supplied to the EU in 2021, while Ukraine supplied only 1, although the total Ukrainian export of these products reached 26 units. As for other exceptions, it is worth noting household washing machines (8450 11), road machinery parts (8431 49), turbo engine parts (8411 91), and some passenger cars (8703). Ukraine remains a significant exporter of turbojet engines and parts for them, despite the fact that in 2023, exports of these engines went down to 18 units. And occupying a russian niche in the European market could double the national exports of turbojet engines. The export of turbojet engine parts in Ukraine is currently actively developing, but is carried out mainly to China and India, so the EU market remains a promising channel for expanding sales.

The basis of exports of agricultural and food industry products from the russian federation to the EU is made up of sea fish, corn, wheat, flax seeds, and various residues and wastes of the food industry, which are not of significant interest for replacement with Ukrainian goods due to their low added value or lack of access to natural resources. The only exceptions in this area are such commodity groups as vodka (code 2208 60 under the UKTZED) – in 2021, the EU imported 17.6 million liters of this product from the russian federation, while from Ukraine – 2.8 million liters. It should be noted that in 2023, total vodka exports from Ukraine reached 12.6 million liters, which is almost 16.0% more than in 2021, while the volumes of supplies to the EU during the specified period have almost not changed.

Also promising is the replacement of russian producers of ethyl alcohol (2207 10) and rapeseed oil (1514 11) on the EU market. In 2021, the EU imported 74.0 million liters of ethyl alcohol from the russian federation, while from Ukraine – 34.7 million liters. However, by the end of 2023, imports of Ukrainian ethyl alcohol to the European market had increased to 77.6 million liters, while supplies of this product from the russian federation had gone down to 2.4 million liters. Thus, it can be stated that Ukrainian producers have already partially replaced supplies of russian alcohol to the EU market. As for the rapeseed oil, Ukraine supplies more of this product to the European market than the russian federation. In particular, in 2021, national supplies amounted to 119.0 thousand tons, while russians supplied 97.2 thousand tons. In 2023, the corresponding figures were 111.0 thousand and 17.7 thousand tons. Therefore, a certain niche for replacing russian rapeseed oil continues to exist.

It should be emphasized that the replacement of russian goods in the European Union markets by manufacturers from various countries of the world is a process that has already begun and

is still ongoing. According to the results of 2023, the EU sharply reduced imports from the russian federation: the value of supplies collapsed more than fourfold compared to 2022 – from 194.8 billion USD to 48.0 billion USD. Among others, imports of energy resources dropped by 4.9 times (from 155.1 billion USD to 31.6 billion USD), and imports of other goods – by 2.4 times (from 39.7 billion USD to 16.4 billion USD). One of the key factors in the sharp decline in imports of russian goods to the EU were sanctions, which directly prohibited and/or indirectly complicated trade in a number of sectors of the economy. Thus, during February 2022 – June 2024, the EU introduced 14 packages of sanctions against the russian federation, which, among other things, restricted imports of the following commodity groups:

- **Certain metallurgical products (carbon and corrosion-resistant steel in primary forms, semi-finished carbon steel products, stainless steel wire, other alloy steel in primary forms, and wire from other alloy steels; pipes, tubes, and sections made of cast iron; and copper and aluminum wire, foil, and aluminum hollow sections and pipes);**
- **Coal, crude oil and petroleum products, and liquefied natural gas;**
- **Bitumen and asphalt;**
- **Synthetic rubber, rubber, plastics, and polymeric materials and products made from them;**
- **Carbon, chemical industry products, packaged household chemistry goods, and cosmetics;**
- **Wood, woodworking industry products, and furniture;**
- **Paper and wood pulp;**
- **Textiles, footwear, and leather goods;**
- **Ceramic products, products made of stone, cement, asbestos, mica, and similar materials;**
- **Vehicles (tractors, passenger cars, trailers and semi-trailers, airplanes, helicopters, and yachts);**
- **Some industrial machinery and equipment (metalworking machines, engines, pumps, rolling mills, agricultural machinery, transmission shafts, bearings, electrical transformers, lamps, refrigerators, washing machines, etc.);**
- **Alcohol (including vodka), liqueurs, and other alcoholic beverages;**
- **Tobacco products; and**
- **Rough diamonds and gold.**

The restrictive effect of sectoral sanctions is also amplified by numerous sanctions against specific russian enterprises and individuals that carry out economic activities in the defense industry, manufacture dual-purpose products, engage in parallel imports, provide transportation and logistics services, etc.

As a result of the application of sanctions, the structure of non-energy imports of goods to the EU from the russian federation in 2023 was deformed towards the predominance of base metals and products made of them with a share of 46.3% (mainly cast iron, ferroalloys, and semi-finished carbon steel products), agricultural and food industry products with a share of 18.0% (mainly seafood, residues and waste from the food industry), chemical products with a share of 9.5% (mainly fertilizers), and unirradiated fuel rods, due to which the share of mechanical engineering products in non-energy imports amounted to 6.0%. The above supply structure reflects a certain dependence of European companies on the deliveries of some metallurgical products and radioactive power cells, as well as the EU's principled position on the non-application of sanctions on agricultural and food products and fertilizers (for food security reasons), pharmaceuticals, and a number of other essential goods.

The EU's foreign trade relations with the republic of belarus are also largely focused on energy imports. In 2011–2012, their share in belarusian commodity supplies to the EU reached 50.2–54.8%, but in 2021 it dropped to 15.7%. Non-energy imports of EU countries from belarus peaked in 2021, amounting to 5.6 billion USD, but by the end of 2023 it had fallen to 1.5 billion USD, and energy supplies had almost completely stopped (Fig. 1.20).

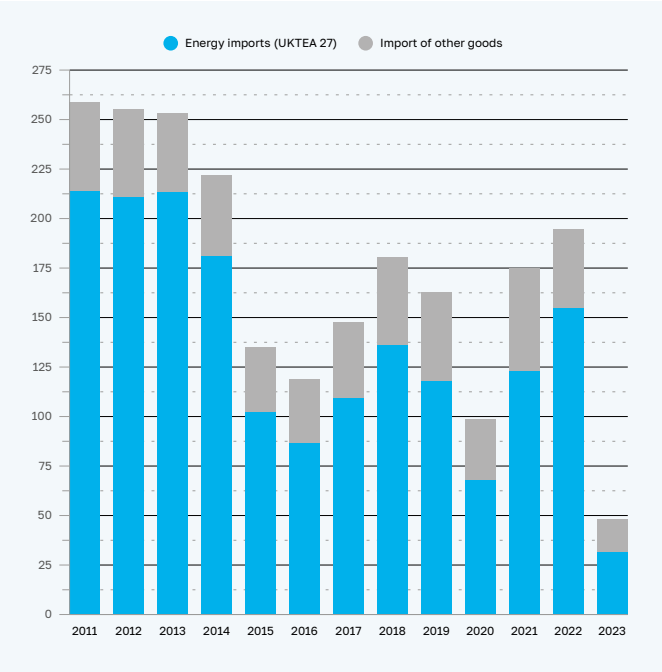


Fig. 1.20. Imports of goods into the EU from belarus, billion USD

Source: Eurostat.

On the eve of the large-scale aggression, the structure of non-energy imports of the EU from belarus was dominated by products of the woodworking and furniture industries with a value of over 2.0 billion USD (36.3%). A significant share was also held by base metals and products made from them (19.2%), products of the chemical and related industries (12.3%), products of the agricultural and food industries (7.1%), polymeric materials, plastics, and rubber and products made from them (5.2%), and various products from non-metallic mineral resources (3.3%).

Among the products of the woodworking and furniture industry, the leading places in imports to the EU from the republic of belarus in 2021 were held by sawn timber from pine and spruce (codes 4407 11–12 under the UKTZED), particleboard (4410 11–12), glued plywood (4412 33), pallets (4415 20), medium-density fiberboard (MDF) with various thicknesses (4411), wood pellets (4401 31) and shavings (4401 21), wooden furniture for shops, dining rooms, and living rooms (9403 60), for bedrooms (9403 50), for seating (9401 40), and parts thereof (9403 90). The above analysis of the prospects for the substitution of goods from the russian federation on the EU market has shown that Ukrainian producers have high competitiveness and the potential to build up their presence on the European market in all of the listed groups of goods in the woodworking and furniture industry.

Imports of chemical industry products to the EU from the republic of belarus in 2021 consisted mainly of fertilizers, primarily potassium chloride (code 3104 20 under the UKTZED) and fertilizers containing nitrogen, phosphorus, and potassium (3105 20). The positions of Ukrainian producers in the EU market remain quite modest in this fertilizer segment; however, as indicated above, they can be significantly strengthened if favorable conditions are created.

Imports of agricultural and food industry goods to the EU from belarus in 2021 consisted mainly of rapeseed oil (code 1514 11 under the UKTZED), frozen berries and berry jam (0811 90), fresh mushrooms (0709 59), soybean oilcake (2304) and rapeseed oilcake (2306 41), and vodka (2208 60). An analysis of the prospects for substituting belarusian goods on European markets showed a significant potential for Ukrainian producers of rapeseed oil and vodka. As for berries in frozen or cooked form, their supplies from Ukraine to the EU reached a record 82.9 thousand tons in 2022, boosted by 4.3 times compared to 2014. Exports of fresh mushrooms to the EU from Ukraine in 2021 exceeded 1,000 tons for the first time (deliveries from the republic of belarus during this period amounted to 4,200 tons), slightly dropping after the large-scale invasion to 916.5 tons by the end of 2023. Therefore, in these niches, the replacement of belarusian goods with Ukrainian analogues on EU markets seems to be expedient and promising.

In the field of production of polymeric materials, rubber, plastics and products made from them, pneumatic rubber tires and tires for passenger and freight vehicles (codes 4011 10–20 under the UKTZED) are at the intersection of international specialization of Ukraine and the republic of belarus, where domestic manufacturers, as shown above, have a considerable potential to expand their presence in the European market.

Almost the only significant item of belarusian exports of mechanical engineering goods to the EU remains electrical conductors for voltages below 1 kV (code 8544 49 under the UKTZED) and over 1 kV (8544 60). In particular, in 2021, the EU imported 32.7 thousand tons of products under these two commodity positions from belarus. Ukraine also exports the corresponding products in significant volumes, including to the EU. In 2021, exports of cables for voltages less than 1 kV amounted to almost 19.0 thousand tons, of which 13.0 thousand tons were sent to EU countries. According to the results of 2023, the total volume of exports of these products from Ukraine amounted to 18.7 thousand tons, of which 14.3 thousand tons have entered the EU market. Thus, the importance of the European sales market for Ukrainian cable manufacturers is growing, so replacing belarusian supplies is a promising direction for expanding the relevant niche.

As in the case of the russian federation, starting from 2023, the EU has reduced imports from belarus substantially. Relatively large volumes of belarusian goods' supplies were carried out to the EU market for the following items: wooden furniture, electrical cables, oilcake, rapeseed oil, and primary polymers.

When considering the potential areas for replacing russian and belarusian imports in the EU with Ukrainian goods, it is important to emphasize that this involves identifying potential niches, the partial filling of which will allow for the growth of domestic production and the export of relevant products. Clearly, the existence of these niches does not imply their automatic filling exclusively with Ukrainian goods. The focus is primarily on identifying industries and product groups where Ukraine has the necessary production capacity and could theoretically increase its presence in the EU market by taking advantage of restrictions on the import of goods from russia and belarus, provided there is an active business stance and a well-thought-out state policy. Moreover, the window of opportunity in this area is rapidly closing, as the large-scale process of replacing russian and belarusian goods in the European market began in 2023.

The EU's imports from other countries reflect the stable demand from European consumers and businesses for a wide variety of goods from around the world. We will now examine the corresponding demand for products from Turkish and Chinese manufacturers. For example, EU imports from Turkey are characterized by significant supplies of automotive products (passenger and commercial vehicles, buses, semi-trailer tractors, spare parts and mechanisms for them), light industry products (ready-made garments from knitwear and textiles, such as suits, dresses, trousers, sweaters, blouses, t-shirts, underwear, tights, socks, etc.), electrical transformers and conductors, metal structures, aluminum products, polymer and plastic products, pneumatic tires and vehicle tires, refrigeration and freezing equipment, and more (Fig. 1.21).

It should be noted that in many of the above-mentioned industries, Turkish manufacturers are fiercely competing and expanding their presence on the Ukrainian market, which is facilitated by the comprehensive industrial and foreign trade policy of the Turkish Government. In the near future, the competitive position of Turkish enterprises on the Ukrainian market may be strengthened in the event of ratification and entry into force of the free trade agreement between Ukraine and Turkey. However, Ukrainian manufacturers, theoretically, have the potential to strengthen (restore) their positions, in particular, on the domestic and European markets of buses, metal structures, and transformers.

Thus, in 2023, the EU imported almost 17.1 thousand buses (code 8702 under the UKTZED) from third countries, 10.9 thousand of which (64.1%) came from Turkey. Until 2012, the export of buses from Ukraine reached 1.0 thousand pieces per year, but was focused on the CIS markets and then went down dramatically. The reorientation to the European market was insignificant: during 2016–2021, the export of buses from Ukraine to the EU grew from 18 to 52 pieces. After the large-scale invasion, it dropped to 4

units, and Ukrainian manufacturers were forced to make a lot of efforts to at least maintain their production. Most of them stayed afloat mainly thanks to the state support programs «School Bus», localization in public procurement, and «Affordable loans 5-7-9%». In the future, increasing presence in the European market may serve as an additional factor in revitalizing production in this industry, especially since domestic buses in many models are in no way inferior in quality to Turkish counterparts.

Imports of various metal structures (code 7308 90 under the UKTZED) to the EU from Ukraine during 2014–2021 surged from 5.9 thousand to 16.7 thousand tons, and by the end of 2023 grew 17.3 thousand tons. However, the total demand of EU countries for metal structures from third countries in 2023 reached 1.33 million tons, of which 508.0 thousand (38.1%) and 236.6 thousand tons (17.7%) came from China and Turkey, respectively. A similar situation has developed with transformers (8504): Ukrainian manufacturing and exports have significantly fallen due to the loss of the russian market (in particular, during 2012–2023, exports gradually decreased from 60.7 thousand to 2.1 thousand tons), and the reorientation to the EU market remains sluggish due to the dominance of supplies from China (with a share in imports of 56.8%) and Turkey (17.5%).

EU imports from China are largely concentrated on electrical equipment (smartphones, batteries, transformers, monitors and projectors, integrated circuits, heaters, audio equipment, lighting equipment, and cables), motor vehicles and their parts, furniture,

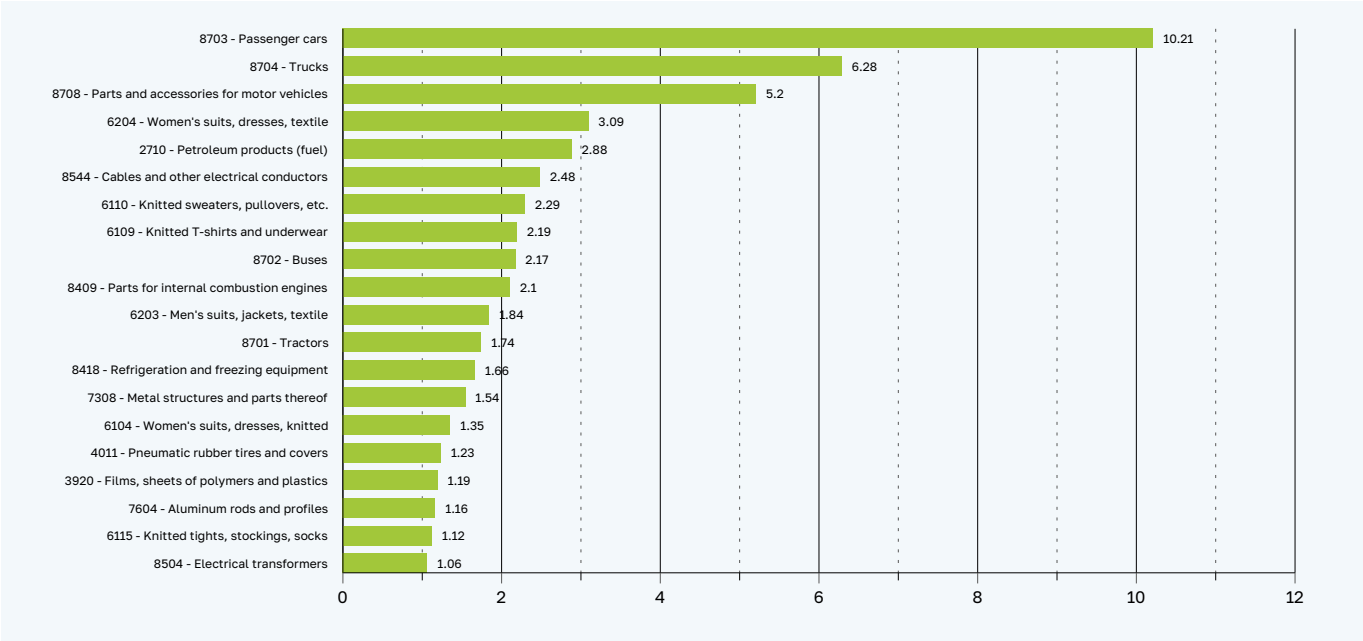


Fig. 1.21. Top 20 commodity groups in EU imports from Turkey in 2023, billion USD

Source: World Integrated Trade Solutions. Trade Data: Advanced Querry (UN COMTRADE). URL: https://wits.worldbank.org/Default.aspx

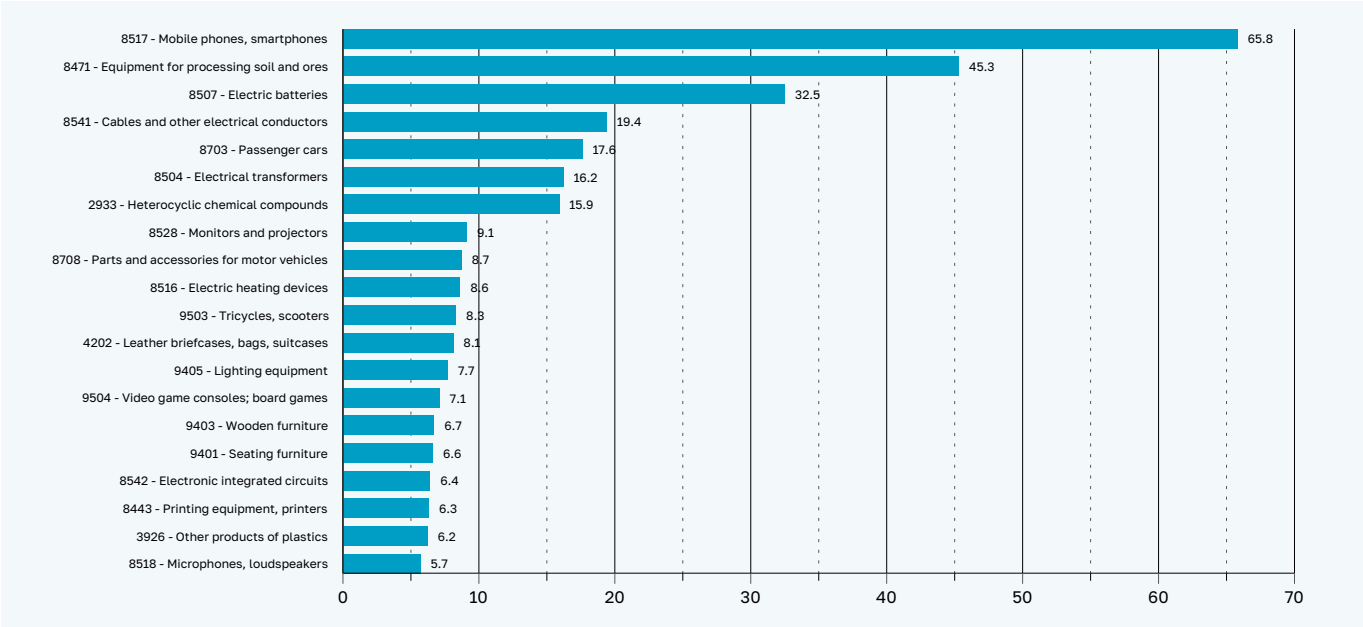


Fig. 1. 22. Top 20 commodity groups in EU imports from China in 2023, billion USD

Source: World Integrated Trade Solutions. Trade Data: Advanced Querry (UN COMTRADE). URL: https://wits.worldbank.org/Default.aspx

various chemical compounds, and plastic products (Figure 1.22).

Among other things, domestic alarm systems (code 8531 10 according to the UKTZED) are seen as promising for replacing Chinese products on the European market. During 2014–2022, their total export from Ukraine increased from 1.08 million to 5.04 million units, of which 1.1 million units were delivered to the EU in 2022. At the same time, deliveries from China amounted to 62.0 million units of alarm systems, and the country's share in EU imports from third countries is 77.8%. Eurostat data indicate the boost in imports of Ukrainian radio remote control equipment (8526 92) to the EU – from 84.1 tons in 2020 to 339.9 tons in 2023. However, the EU still supplies most of these products from China, whose share reached 64.2% in imports from third countries in 2023. Despite the difficulties of the war period, Ukraine is raising its exports of lighting equipment to the EU (9405) – from 0.26 thousand to 3.54 thousand tons during 2014–2023, and the EU's share in the export structure rose accordingly from 6.7% to 86.5%. At the same time, China still dominates in imports of these products to the EU from third countries with a share of 90.8%.

A generalized list of commodity groups identified by the available potential for replacing European imports from the russian federation, the republic of belarus, China, Turkey, and other countries of the world with Ukrainian-made products is presented in Table 1.6.

Table 1.6. List of priority commodity groups by potential for substitution of EU imports from third countries with Ukrainian products

UKTZED code	Commodity group
0207	Meat and edible offal of poultry
1507; 1514	Soybean oil; rapeseed oil
2207	Ethyl alcohol
2208 60	Vodka
3102; 3808	Nitrogen fertilizers; plant protection products
3401–02	Household chemicals (soaps, laundry detergents, cleaning products and other surfactants)
3920	Ethylene polymer films, sheets, plates, tapes
3925	Building products made of plastics (doors, windows, window frames, plat bands, thresholds)
4011	Pneumatic rubber tires and covers for cars and trucks
4016	Various rubber products (mats, gaskets, seals, washers, etc.)
4406–21	Wood products (plywood, chipboard, fiberboard/MDF, containers, pallets, parquet, carpentry and construction products, sheets for cladding, etc.)
55–63	Textiles, knitwear; clothing and accessories
6810	Tiles, tiles, slabs, bricks and similar products of cement, concrete, artificial stone
6907; 6910	Ceramic products (tiles and other ceramic finishing products; sinks, washbasins, bathtubs, toilets and other sanitary products made of ceramic)
7207–29	Ferrous metals (carbon steel semi-finished products, flat products, rods, bars, angles, iron or non-alloyed steel wire, etc.)
7301–26	Ferrous metal products (seamless pipes, cables, ropes, hardware, tanks)
7407	Rods and profiles made of copper alloys
7604	Aluminum alloy rods and profiles
8402–04	Boilers and auxiliary equipment for use with boilers
8411	Turbojet engines and parts thereof
8418	Refrigeration and/or freezing commercial equipment
8431	Parts for machines and mechanisms of road construction equipment (bulldozers, excavators, road rollers, other machines for digging, tamping, leveling, compacting soil, minerals or ores)
8432–36; 8701; 8716	Agricultural equipment (tillage machines, plows, harrows, seeders, mowers, reapers, combines); tractors; trailers and semi-trailersfor agriculture
8450	Household washing machines
8502	Electric generating sets and equipment for wind power generation
8504	Electrical transformers, static electrical converters (e.g., rectifiers), inductors and chokes
8526	Radio remote control equipment
8531	Electrical signaling devices for protection against theft or fire and similar devices
8544	Electrical conductors (cables)
8606	Freight railroad cars
8702	Buses and coaches
8703	Passenger cars
9401–03	Seating furniture; wooden, metal, plastic furniture used in institutions, shops, kitchens, bedrooms, other living rooms; parts thereof
9405	Lighting equipment

1.4. Identification of directions for diversifying Ukrainian exports to the EU using export potential and economic complexity assessment methodologies.

Despite all the destructive processes and crisis phenomena in the domestic economy, Ukraine's production and export potential retains sufficient resources and opportunities to meet the demand of EU countries for imported products across a wide range of commodity groups in various sectors of the economy. This applies to both products that are already actively supplied to the European market and new directions for diversifying Ukrainian exports to the EU. Identifying the relevant sectors and quantitatively assessing the prospects for activating trade and economic relations between countries is facilitated by modern methodologies of economic analysis and international trade modeling, particularly the export potential assessment methodology from the International Trade Centre (ITC) and the practical application of the product space concept and the economic complexity index of products.

The export potential assessment methodology allows for the identification of commodity groups, markets, and suppliers that have untapped opportunities to activate bilateral trade and quantitatively determine the value of these opportunities. It forms the basis of the ITC Export Potential Map – an interactive tool that provides up-to-date and practical information about products, markets, and suppliers with unused potential. A key indicator of the map is the export potential indicator, which reflects potential export volumes for 226 countries and regions worldwide across 4658 product categories and target markets. Its calculation is based on the gravity model of international trade, which links global demand and supply trends, access conditions to a specific market (tariff and non-tariff regulations, transportation costs, etc.), and the previous history of trade and economic relations between the analyzed countries/regions.

The untapped export potential is calculated as the difference between the country's estimated export potential and actual export performance. Its presence signals the space for boosting the export volumes of certain products under the conditions of reducing obstacles to bilateral trade (abolition of tariff and non-tariff barriers, simplification of trade procedures, reduction of transport and logistics costs, etc.). Sometimes actual exports to a certain group of countries may exceed the estimated export potential, which is explained by exceptional export performance to individual countries in the region. At the same time, the potential for trade with other partners in the region may still remain underutilized.

Thus, the use of the specified methodology made it possible to establish that the EU and European Free Trade Association (EFTA) countries hold a leading place among all regions of the world in terms of untapped potential for Ukrainian exports. The total export potential of Ukraine in trade with these countries is estimated at 26.0 billion USD, while the untapped potential reaches 11.0 billion USD. The EU and EFTA countries account for 38.2% of Ukraine's untapped export potential, the utilization of which can raise domestic exports of goods to these countries by 42.3% (Fig. 1.23).

It should be noted that the ITC Interactive Export Potential Map reflects the results obtained by analyzing the arithmetic average

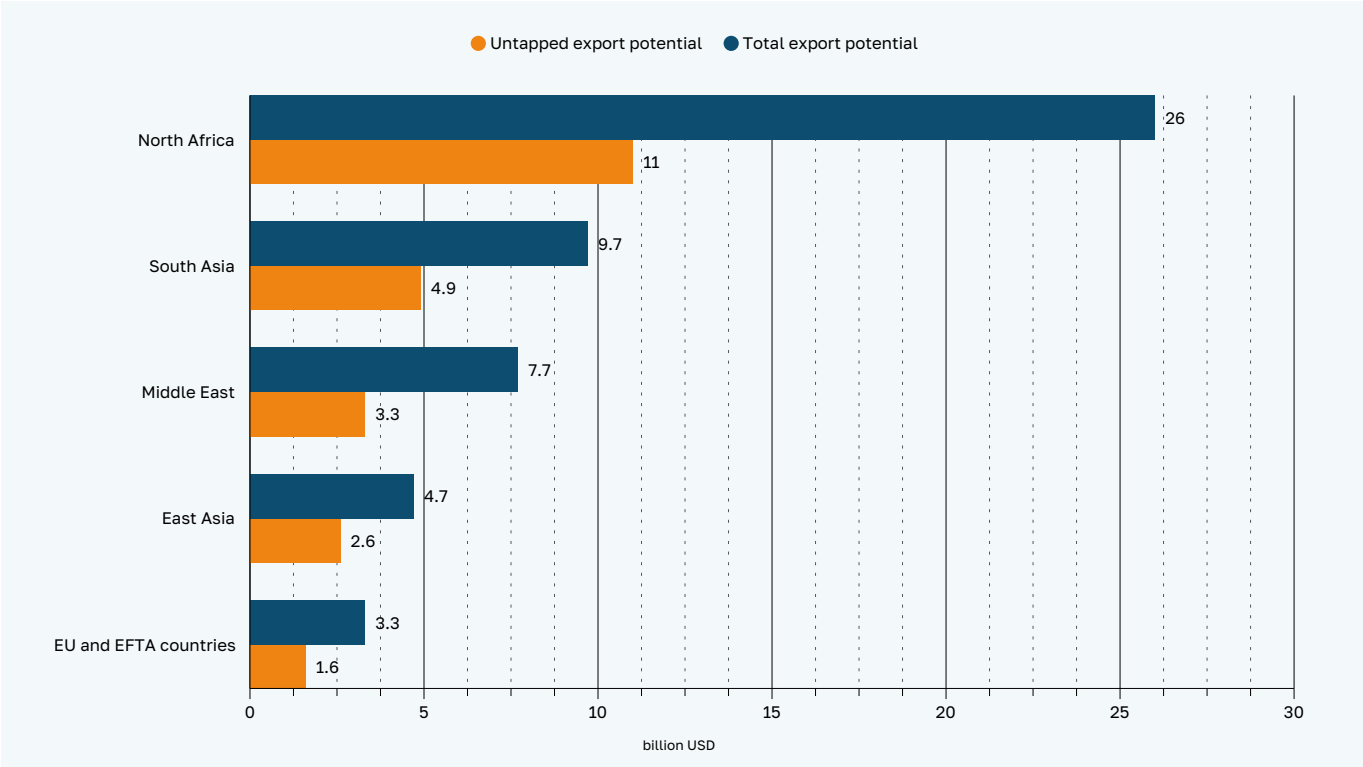


Fig. 1.23. Top 5 regions of the world by the potential for scaling Ukrainian exports

Source: ITC Export Potential Map. URL: https://exportpotential.intracen.org/en/markets/gap-chart?fromMarker=i&exporter=804&toMarker=r&whatMarker=a&what=a

of export indicators for the previous five years. The average value of the cost of goods' exports from Ukraine to the EU in 2019–2023 is 23.2 billion USD. It deviates from the corresponding export volumes in 2023 by less than 1.0%, which ensures the relevance and high accuracy of the given estimates.

Ukraine's untapped export potential in trade with the EU and EFTA is comparable to the corresponding potential of other key regions for the sale of Ukrainian goods, including East Asia – primarily China – with an untapped export potential of 4.9 billion USD, the Middle East and North Africa (4.9 billion USD), and South Asia (2.6 billion USD). If we consider the 27 EU member states directly, Ukraine's total export potential in trade with them is estimated at 24.5 billion USD, with an untapped potential of 10.0 billion USD.

In geographical terms, the largest value volumes of Ukraine's untapped export potential were identified in trade with Germany (1.5 billion USD), Poland (1.2 billion USD), Italy (1.0 billion USD), the Netherlands (0.9 billion USD), Hungary (0.7 billion USD), Spain (0.68 billion USD), and France and Belgium with untapped potential of 515 million USD and 476 million USD, respectively (Fig. 1.24).

In trade with Germany, it is concentrated primarily in such commodity groups as rapeseed and sunflower seeds, iron ore raw materials, electric water heaters, wheat, and corn; with Poland and Hungary – on various ferrous metal products and semi-finished products; with Italy and the Netherlands – on grains and sunflower seed oilcake; while with France and Belgium – on ferrous metals and motor vehicle wiring sets.

The list of top 20 commodity positions (HS6) by value of untapped export potential of Ukraine in trade with the EU contains ten items belonging to the mining and metallurgical complex (iron ores and concentrates, semi-finished products of carbon steel, ferroalloys, pig iron, rods and bars, etc.), seven items covering

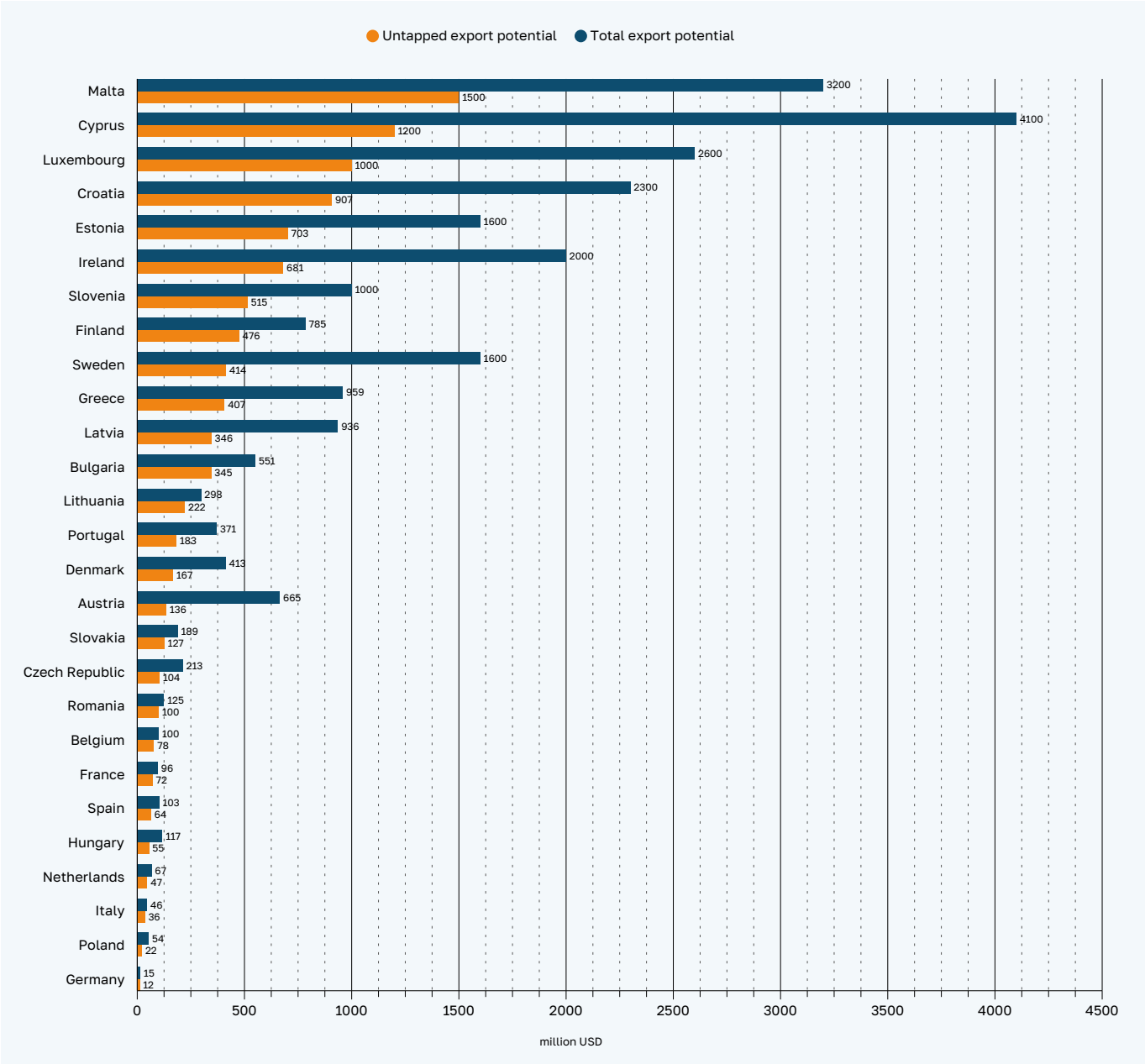


Fig. 1.24. Export potential of Ukrainian products in the markets of EU countries

Source: ITC Export Potential Map. URL: https://exportpotential.intracen.org/en/markets/gap-chart?fromMarker=i&exporter=804&toMarker=r&whatMarker=a&what=a

agricultural and food industry products (corn, wheat, rapeseed and sunflower seeds, crude and refined sunflower oil, and sunflower seed oilcake), and one item each in the sectors of household appliances (electric water heaters), woodworking industry (cladding sheets), and cable sets for transportation vehicles (Table 1.7).

As can be seen, the largest volumes of untapped export potential of Ukraine in trade with EU countries are concentrated in groups of products, traditional for domestic exports, including agricultural and mineral raw materials, semi-finished products of metallurgical, food, and woodworking industries, and a few inclusions of household appliances and equipment.

Табл. 1.7.

Top 20 commodity positions by volume of untapped export potential of Ukraine in trade with the EU and EFTA countries

(Million US dollars)

HS6 code	Commodity position	Actual export	Estimated export potential	
			General	Untapped
1205 10	Rapeseed seeds	1300	1600	525
1512 11	Sunflower oil, raw	1900	2200	451
2306 30	Sunflower seed oilcake	348	712	364
7207 12	Semi-finished products of iron and non-alloy steel (w(C) <0.25 %) with rectangular cross-section	926	591	322
8516 71	Electric heating devices for making coffee or tea	305	442	319
1005 90	Corn	2600	2300	291
8544 30	Cable sets for transportation vehicles	1200	1100	262
7208 39	Hot-rolled flat products in coils, width ≥600 mm, thickness < 3 mm	172	414	251
1001 99	Soft wheat	408	558	231
1206 00	Sunflower seeds	411	461	225
7208 38	Hot-rolled flat steel in coils, width ≥600 mm, thickness 3-4.75 mm	95	256	174
2601 12	Iron ores and concentrates, agglomerated	754	761	159
7201 10	Unalloyed pig iron (w(P) ≤0.5 %)	279	406	139
7207 11	Semi-finished products of iron and non-alloy steel (w(C) <0.25 %) of square cross-section	345	342	136
7213 91	Hot-rolled carbon steel bars, circular cross-section, d < 14 mm	145	252	117
7208 51	Hot-rolled flat products, not in coils, with a thickness exceeding 10 mm	352	415	100
4408 10	Softwood cladding sheets	234	234	64
1512 19	Sunflower oil, refined	262	250	50
2601 11	Iron ores and concentrates, non-agglomerated	1100	471	44
7202 30	Ferrosilicomanganese	342	302	42
Total top 20		**13478**	**14067**	**4266**

Note:

1. Actual export data reflects the arithmetic average value of exports of the relevant goods from Ukraine to the EU and EFTA countries during 2019–2023.

Source: ITC Export Potential Map. Products. URL: https://exportpotential.intracen.org/en/ products/gap-chart?toMarker=r&market=3&fromMarker=i&exporter=804&whatMarker=k

This is conditioned by the fact that the methodology used is predominantly based on the existing structure of bilateral trade relations between the countries or regions that are subject to modeling. However, thanks to this, the ITS Export Potential Map clearly demonstrates the disappointing prospect for the Ukrainian economy of preserving the raw material structure of exports, if further liberalization of trade with the EU takes place in the absence of a proactive position of domestic business and government structures with regards to protecting national interests and implementing a policy, aimed at promoting the development of manufacturing industries and creating powerful competitive advantages in them on world markets.

Moreover, if in the short term, the utilization of previously untapped export potential can help Ukraine reduce its negative trade balance with the EU, in the long term this effect is offset, since European imports are developing most dynamically in those sectors where Ukrainian industry has not formed a high-quality international specialization. To illustrate this thesis, we will use the trade complementarity index between Ukraine and the EU for 2008–2023. It reflects the extent to which countries/regions are natural trading partners in the sense that the export structure of one party corresponds to the import structure of the other. In other words, how much the demand of one country on the world market coincides with the propositions of its trading partner.

The index value ranges from 0 to 100, where a zero value means that one party has no demand for the products exported by the other, while a value close to 100 indicates a complete coincidence of the supply and demand structures in bilateral trade between them. The use of the index is particularly valuable in assessing the long-term consequences of the formation of new or accession to existing regional integration groups, since mutual liberalization is most appropriate and justified in cases where the level of trade complementarity is high and approximately the same for both parties. Unfortunately, this is not the case for the situation of Ukraine and the EU (Figure 1.25).

As can be seen from Fig. 1.25, the structure of EU exports is much more consistent with the structure of Ukrainian imports than vice versa. This indicates that in Ukraine, the demand for products in which EU producers specialize is higher than the demand of European counterparties for products that the Ukrainian side supplies to international markets. Moreover, if the index of complementarity of EU exports to Ukrainian imports, despite minor fluctuations, remains almost unchanged (in 2023 it was 68.3 compared to 66.6 in 2008), then the reverse indicator has a steady tendency to decline (from 40.0 to 27.9 in 2008–2023). This means that the structure of Ukrainian exports is being deformed towards the predominance of those commodity groups that do not constitute a significant share in EU imports, and therefore, the demand for them is quite limited. The comparison of the export structures of Ukraine and the EU import indicates that such groups of goods include agricultural raw materials, grain crops, residues and waste from the food industry, iron ore raw materials, pig iron, and semi-finished carbon steel products. Based on this

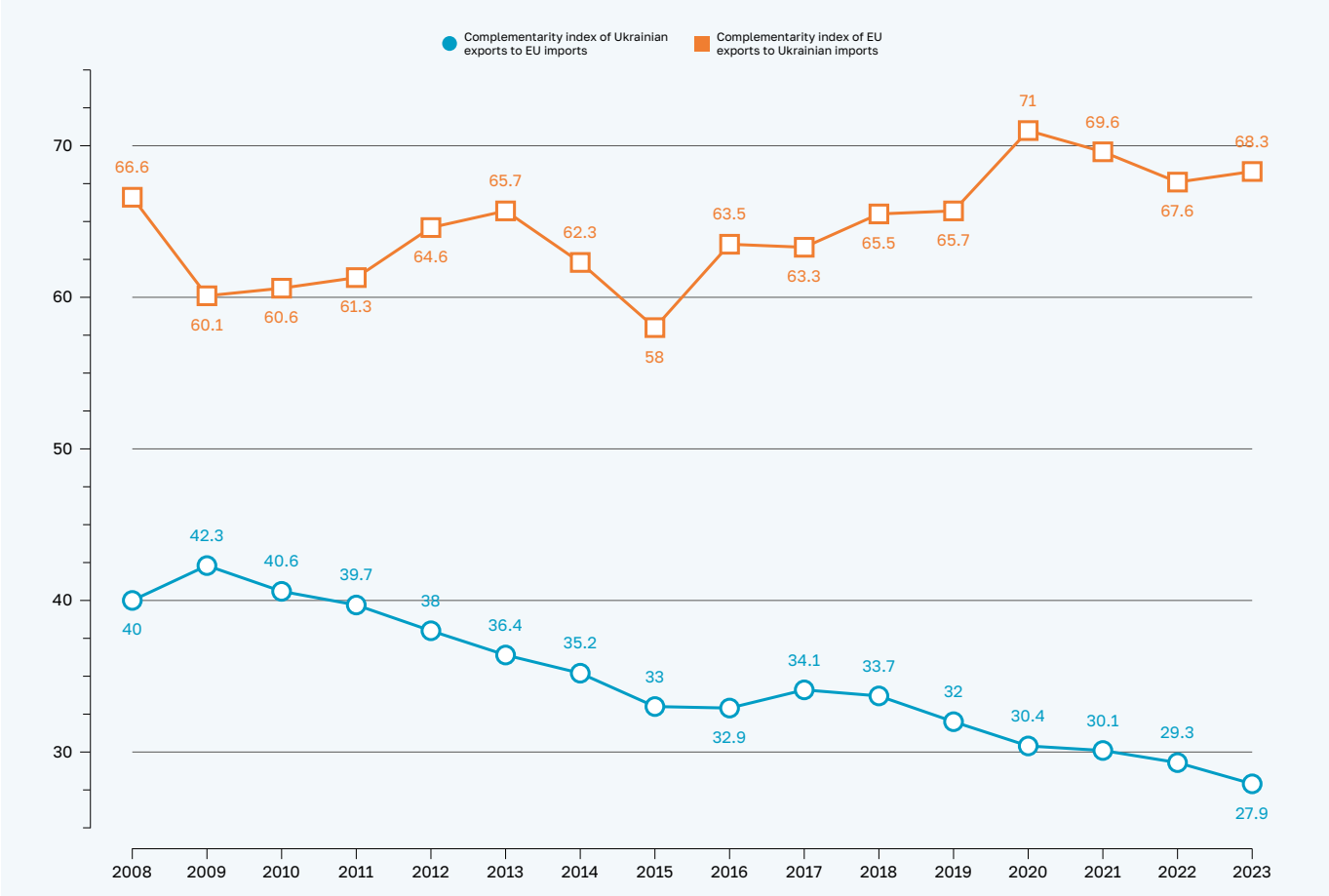


Fig. 1.25. Complementarity indices in bilateral trade in goods between Ukraine and the EU in 2008–2023

Source: UNCTAD Stat. Merchandise trade matrix – exports & imports of individual economies & institutional groups in thousands United States dollars, annual.

URL: https://unctadstat.unctad.org/ wds/ReportFolders/reportFolders.aspx

information, the following conclusions can be drawn:

- **With further intensification of integration processes between Ukraine and the EU, the growth rate of imports to Ukraine from the EU will exceed the growth rate of Ukrainian exports to the European market; therefore, in the long term, the negative balance in trade with the EU will steadily increase;**
- **Despite the positive short-term effect of expanding access to the EU market, Ukrainian exporters of raw materials, semi-finished products, and primary processing products will soon saturate European markets and thus will face a natural limitation in demand for their products in Europe.**

In order to avoid the aforementioned developments, it is necessary to diversify domestic production and exports by creating a specialization in a much broader range of manufactured products than what is observed at the current stage. The concept of product space and the methodology for assessing the economic complexity of products are designed to identify and justify the feasibility of relevant structural shifts.

The product space, in the form of a network map, reflects the existing production capabilities of a country and the goods that are close to those capabilities, on which the country can also specialize due to already existing productive knowledge. Interpreting products as embodiments of productive knowledge or capacity, the developers of the concept emphasize that countries do not just produce the goods and services they need; they produce what they are capable of producing. Products that are closely related share a common set of productive knowledge necessary for their production. The likelihood that a country will be able to produce a certain product depends on how closely it is positioned in the product space relative to the products that the country already produces.

The product space is highly heterogeneous: products with high levels of economic complexity (machines, equipment, chemicals, electrical devices) are located in the dense and interconnected center of the product space, while the periphery is occupied by products with the lowest economic complexity (mineral and agricultural raw materials, simple agricultural products), which have few connections with other sectors. The product space concept empirically proves that the closer a country's specialized products are to the center of the product space, the higher the complexity of the national economy and the level of well-being, while simultaneously offering greater opportunities for the development and diversification of production and exports.

Based on the concept of product space, a methodology for quantitatively assessing the economic complexity of each product has been developed, which is embodied interactively in the form of the Harvard University Economic Complexity Atlas. The Atlas operates with three key indicators: the Economic Complexity Index of a product, which determines the volume and complexity of knowledge required to master the production of a specific product; the distance to mastering production, which on a scale from 0 to 1 reflects the country's current potential to transition to the production of new types of products based on its current position in the product space and technological development level; and the opportunity gain – an indicator that quantitatively assesses how the mastering of a new product's production can create prospects for further diversification based on the existing connections in the product space.

Using a balanced strategic approach, which simultaneously considers the distance in the product space of prospective products from those that form the basis of international specialization; the economic complexity of prospective products; and the opening of new opportunities for further diversification of production and exports, the Economic Complexity Atlas has identified product groups for which it is advisable to prioritize expanding Ukraine's export basket (Fig. 1.26).

Analysis of the most recent data available in the Atlas of Economic Complexity (2021) allowed identifying only five commodity groups that meet all three of the above criteria. These are antifreeze substances and de-icing mixtures (HS code 3820), wooden railway sleepers (4406), plates, sheets, film, and strip made of plastics (3921), multilayer glass insulating products (7008), glass putties, and fillers for painting and similar mastics (3214).

Comparing these results with those provided by the Atlas when processing data for previous years shows that the window of opportunity for using specific industries as catalysts for structural shifts in the economy is not permanent and tends to narrow as key positions in Ukrainian exports are increasingly being secured by raw materials and semi-finished products. Thus, back in 2013, the list of promising products for diversifying Ukrainian exports included more than 180 commodity groups by four-digit HS codes. However, in 2017 it was cut down to 92 commodity groups, and by the end of 2021 – only to the above five.

Therefore, the problem of the gap between the potential and actual economic growth is not solved by itself. In the case of wasting the existing potential for economic development, the complexity of the economy and the possibilities for export diversification naturally take on a downward trend. As a result, the lost time increases future costs for structural transformation and modernization of the national economy, and also narrows the space for the development of trade and economic relations with partner countries.

In order to form a list of at least 20 most promising commodity groups in terms of the potential for diversification of Ukrainian production and exports to EU countries, Ukraine's export indicators for 2018–2021 were analyzed using the Atlas of Economic Complexity (Table 1.8).

Potential areas of diversification of Ukrainian exports to the EU in the short and medium term have been identified as: some mechanical engineering products (machines for harvesting and threshing agricultural crops, milk processing equipment, trailers and semi-trailers for transportation vehicles, refrigeration and freezing equipment, and central heating boilers), electrical equipment (in particular, for ensuring safety, control, and regulation of road traffic, as well as parts for electric motors and generators), fiberglass, various vulcanized rubber products, plastic sanitary products, wooden sleepers, cement and concrete products, furnaces, stoves, and other similar products made of ferrous metals, and fertilizers.

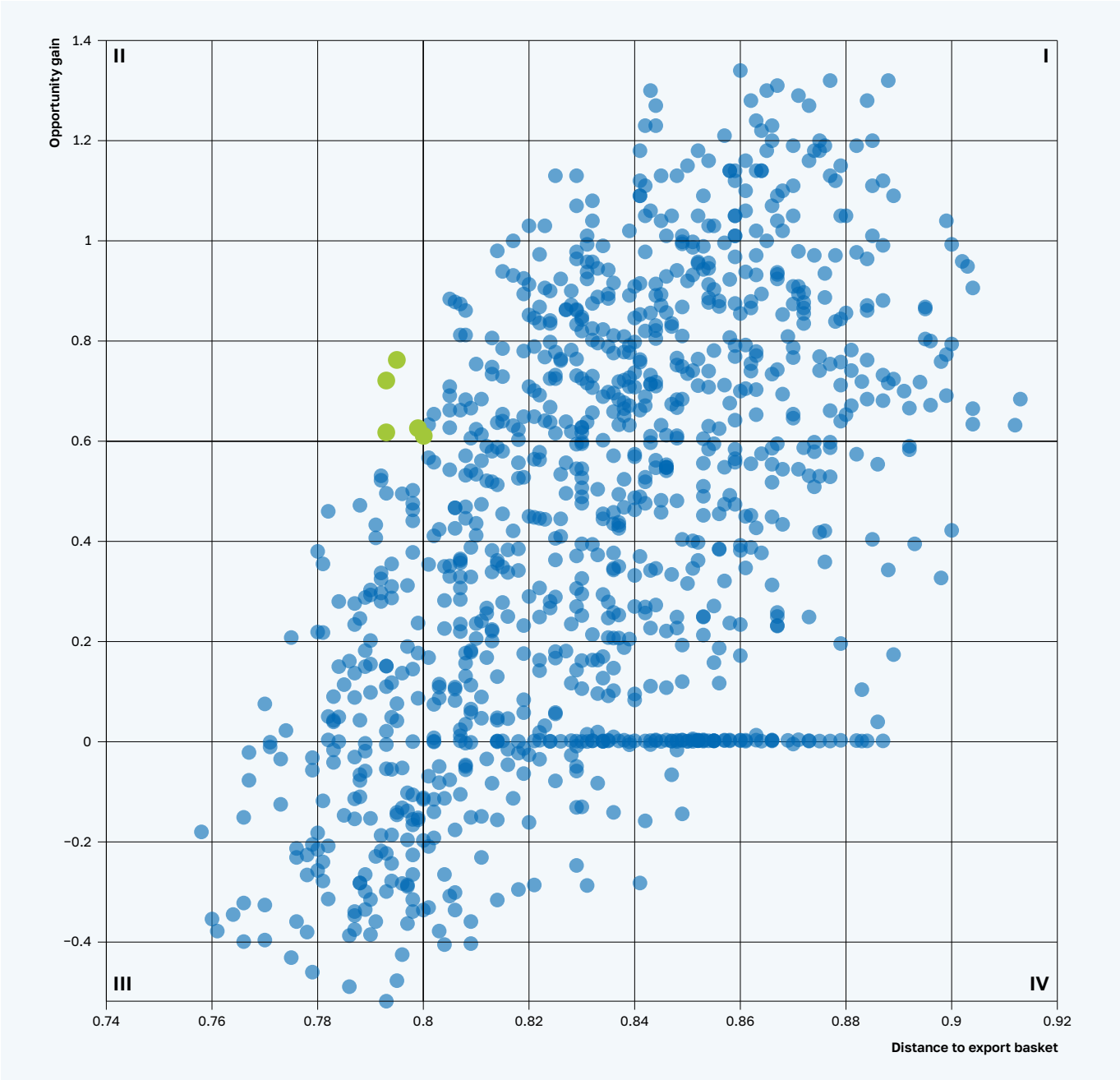


Fig. 1.26. Distribution of commodity groups (HS4) by the potential and effectiveness of diversification of Ukrainian exports according to the concept of economic complexity (2021)

Source: Atlas of Economic Complexity. Which Products are Feasible for Ukraine in 2021?

URL: https://atlas.cid.harvard.edu/explore/feasibility?country=228&queryLevel=location&year=2021& productClass=HS&startYear=undefined&product=undefined&target=Product&partner=undefined

It is worth noting that in terms of metallurgical products, the greatest prospects for diversification of domestic exports to the EU are in the field of «green» metallurgy, which meets the strict community standards for reducing CO_2 emissions and other environmental requirements thanks to the use of electric steelmaking technology for steelmaking, as opposed to the conventional open-hearth and oxygen-converter technologies.

As for the fertilizers, Ukraine also has a unique opportunity to diversify exports through the restoration and simultaneous construction of a new chemical production of «green fertilizers» based on «green» ammonia and «green» hydrogen.

Along with this, a number of commodity groups have been identified that also have high innovation potential for the Ukrainian economy, but are located at a considerable distance from their practical development. Ukraine's starting position in terms of technology, know-how, and human resources is unfavorable for the rapid development of such industries. Structural changes in these areas require significant investments and are possible rather in the long term. Among such products, it is expedient to single out loading and unloading equipment (HS 8427), elevators (8428), bearings (8482), equipment for metal-foundry production (8480), freight railway cars (8604) and vehicles for their repair and maintenance (8606), and machine tools for processing wood, plastics, and similar hard materials (8465). Graphically, in Fig. 1.26, the corresponding products are located in Quadrant I.

At the same time, when forming a structural policy aimed at diversifying the range of exports to EU countries, it is advisable to

avoid redistributing a significant number of resources to industries whose products are concentrated in Quadrants III (lower left) and IV (lower right) in Fig. 1.25. Ukrainian manufacturers have a fairly high level of competitiveness in the industries of Quadrant III, but the corresponding goods are not characterized by a sufficient level of complexity and technological sophistication, and their production is not characterized by the labor productivity necessary for an effective interconnection between structural changes and the advanced development of the economy. The list of commodity groups in this quadrant includes unprocessed wood (4403), molasses (1703), raw hides and skins (4101), plasterboard (6809), raw float glass (7005), ceramic products made of silica stone flour (6901), etc.

Quadrant IV contains goods that combine a low potential to act as growth drivers and a large technological distance to the export basket. These include, in particular, thermoses and other vacuum containers (9617), artificial flowers (6702), plant fibers (5305), printing presses (8469), vulcanized rubber cord (4007), microphones and loudspeakers (8518), leather bags, suitcases, cases, and covers (4202), natural cork (4501), scissors and blades for them (8213), cases (9112), watch straps and bracelets (9113), percussion musical instruments (9206), tableware, kitchenware, and other household goods and their parts of ferrous metals (7323), etc.

In 2023, EU imports from third countries under the list of commodity groups specified in Table 1.5 amounted to 29.6 billion USD. Compared to the figures of five years ago (2018), the value of imports of these goods to the EU grew by 29.1%, demonstrating a dynamic increase in demand in the relevant markets. The largest share of this demand is formed by imports of refrigeration and freezing equipment (22.2%), parts for electric motors and generators (13.9%), various vulcanized rubber

Table 1. 8. Top 20 commodity groups by diversification potential of Ukrainian exports to the EU, determined using the economic complexity assessment methodology (2018–2021)

HS4 code	Commodity group	Economic Complexity Index (ECI)	"Distance" to the export basket	Opportunity gain
8403	Central heating boilers	0,968	0,798	1,030
4008	Plates, sheets, strips, rods, and sections of vulcanized rubber	1,090	0,799	1,000
8433	Machines and mechanisms for harvesting and threshing agricultural crops	0,880	0,790	0,991
8530	Electrical equipment for safety, control, and regulation of the road traffic	1,090	0,797	0,954
8434	Milk processing equipment	0,662	0,799	0,864
8503	Parts for electric motors and generators	0,815	0,799	0,850
3105	Mineral fertilizers containing two or three nutrients	0,940	0,773	0,825
4016	Other items of vulcanized rubber	0,879	0,798	0,821
8716	Trailers and semi-trailers	0,713	0,792	0,802
3820	Antifreeze substances and ready-made liquid de-icing mixtures	0,432	0,795	0,763
3922	Plastic plumbing products	0,607	0,791	0,739
7019	Fiberglass and products made from it	0,667	0,789	0,727
4406	Wooden sleepers for railway tracks	0,342	0,793	0,721
6810	Products made of cement, concrete, and artificial stone	0,417	0,785	0,681
7321	Furnaces, stoves, boilers, barbecues, and burners for stoves made of ferrous metals	0,281	0,794	0,680
8418	Refrigeration and freezing equipment	0,729	0,788	0,665
7325	Other cast iron products	0,388	0,784	0,629
3921	Other plates, sheets, and film of plastics	0,599	0,799	0,626
7008	Multilayer glass insulating products	0,701	0,793	0,617
3214	Paint putties, glass putties, and other mastics	0,616	0,800	0,612

Source: Atlas of Economic Complexity. Which Products are Feasible for Ukraine in 2018–2021?
URL: https://atlas.cid.harvard.edu/explore/feasibility?country=228&queryLevel=location&year=2021& productClass=HS&startYear=undefined&product=undefined&target=Product&partner=undefined

products (12.3%), machines for threshing agricultural crops (9.4%), plates, sheets, and other products of plastics (9.0%), and trailers and semi-trailers (7.4%). The least significant among the selected commodity groups are imports of pork fat and poultry fat (0.02%), wooden sleepers (0.06%), anti-freeze and de-icing mixtures (0.13%), multilayer glass insulation products (0.31%), electrical equipment for safety, control, and regulation of road traffic (0.62%), and milk processing equipment (0.63%).

Ukraine provided 0.37% of European imports of the relevant EU products from third countries in 2023. In value terms, this corresponds to deliveries worth 110.0 million USD, mainly consisting of refrigeration and freezing equipment (19.0%), trailers and semi-trailers (18.5%), cast products from ferrous metals (18.3%), machines for harvesting and threshing agricultural crops (9.6%), and central heating boilers (6.9%). Exports were carried out for all 20 groups of goods from Table 1.5. Compared to 2018, Ukraine boosted its exports of the above-mentioned commodity groups by a total of 23.4% (from 89.1 million USD). The largest increase in absolute volumes was achieved in such groups of goods as cast products from ferrous metal, machines and mechanisms for harvesting and threshing agricultural crops, trailers and semi-trailers, cement products, and central heating boilers. At the same time, exports to the EU of domestic refrigeration and freezing equipment, various plastic products, parts for electric motors and generators, and fiberglass and products made of it in 2023 were slightly lower than in 2018.

Thus, although the presence of Ukrainian manufacturers in European markets for products with a high level of economic complexity currently remains relatively insignificant, the domestic industrial complex, despite all the destructive crisis phenomena, still retains the potential to implement qualitative structural changes towards modernization and boosting the manufacture of products with a high level of added value, including for export to EU countries. The window of opportunity for using this potential is constantly narrowing, which requires the urgent formation of a comprehensive state policy to restore and stimulate industrial development in the face of today's challenges.



BRIEF CONCLUSIONS TO CHAPTER 1

1. The unprecedented challenges of the large-scale invasion by the russian federation sharply increased the role and significance of the European market for the survival of the Ukrainian economy starting from 2022. The growth of exports to EU markets helped several sectors of agriculture and industry survive amidst the rapid shrinking of the domestic market and new difficulties in transportation and logistics for international trade. In many sectors, the decline in production was partially offset by increasing exports to the European market and expanding transit through it to third countries. The EU became Ukraine's largest and irreplaceable trading partner, accounting for 56% of its external trade turnover.

In addition to the traditional agricultural raw materials in Ukraine's exports, Ukrainian producers increased shipments to the EU from 2022 to 2024 of poultry meat, sugar, vegetable oils, confectionery products, fruit juices, starch, vodka and spirits, cement, furniture and wooden products, glass containers, plastic products, seamless pipes and other black metal products, aluminum alloys, certain electrical and lighting equipment, and a range of other processed industrial goods. This demonstrated the high level of domestic production in many sectors and the ability of Ukrainian manufacturers to conquer complex and highly competitive markets of developed countries in the conditions of free access to these markets.

A fundamental factor in the activation of trade and economic relations with the EU was Ukraine's granting of candidate status for EU membership and the application of autonomous trade preferences, which involved the removal of remaining import tariffs, tariff quotas, and trade protection measures by the EU on imports of Ukrainian goods. This undoubtedly worked in the economic interests of both sides. However, the rise of national egoism and the stirring up of unfounded fears about the uncontrolled expansion of Ukrainian products in several European countries led initially to arbitrary trade blockades by certain partners and, ultimately, to the official application of safeguard measures by the European Union, which reintroduced quantitative restrictions on the import of certain products from Ukraine, including poultry, corn, honey, sugar, oats, eggs, and cereals. The practice of using non-tariff barriers to create hidden obstacles for Ukrainian goods entering EU markets also persists.

Thus, the problem of analyzing and finding arguments in favor of ensuring optimal access to EU markets for all categories of Ukrainian goods and services becomes increasingly relevant, particularly through a thorough justification of the mutual benefits for both parties from reciprocal trade liberalization. An important aspect in this process is also addressing internal regulatory issues and improving the state's economic policy to eliminate bottlenecks and facilitate access to European markets. An effective approach to solving these problems is combining desk research with surveys of interested business representatives and the expert community, which will allow for a more detailed outline of the specific challenges and potential solutions.

2. An important vector for expanding the export potential of Ukrainian producers and activating Ukraine's trade and economic cooperation with the EU as a whole is the replacement of russian and belarusian goods on the European market, which have been sanctioned, with Ukrainian-produced products. The 14 sanction packages imposed by the EU from February 2022 to June 2024 banned and/or significantly restricted the supply of a number of goods from russia and belarus to the European market, which had served as significant sources of foreign currency earnings for them. As a result of the sanctions, imports of russian goods into the EU in 2023 decreased fourfold, dropping by $150 billion, while imports from belarus fell from nearly $7 billion to $1.5 billion.

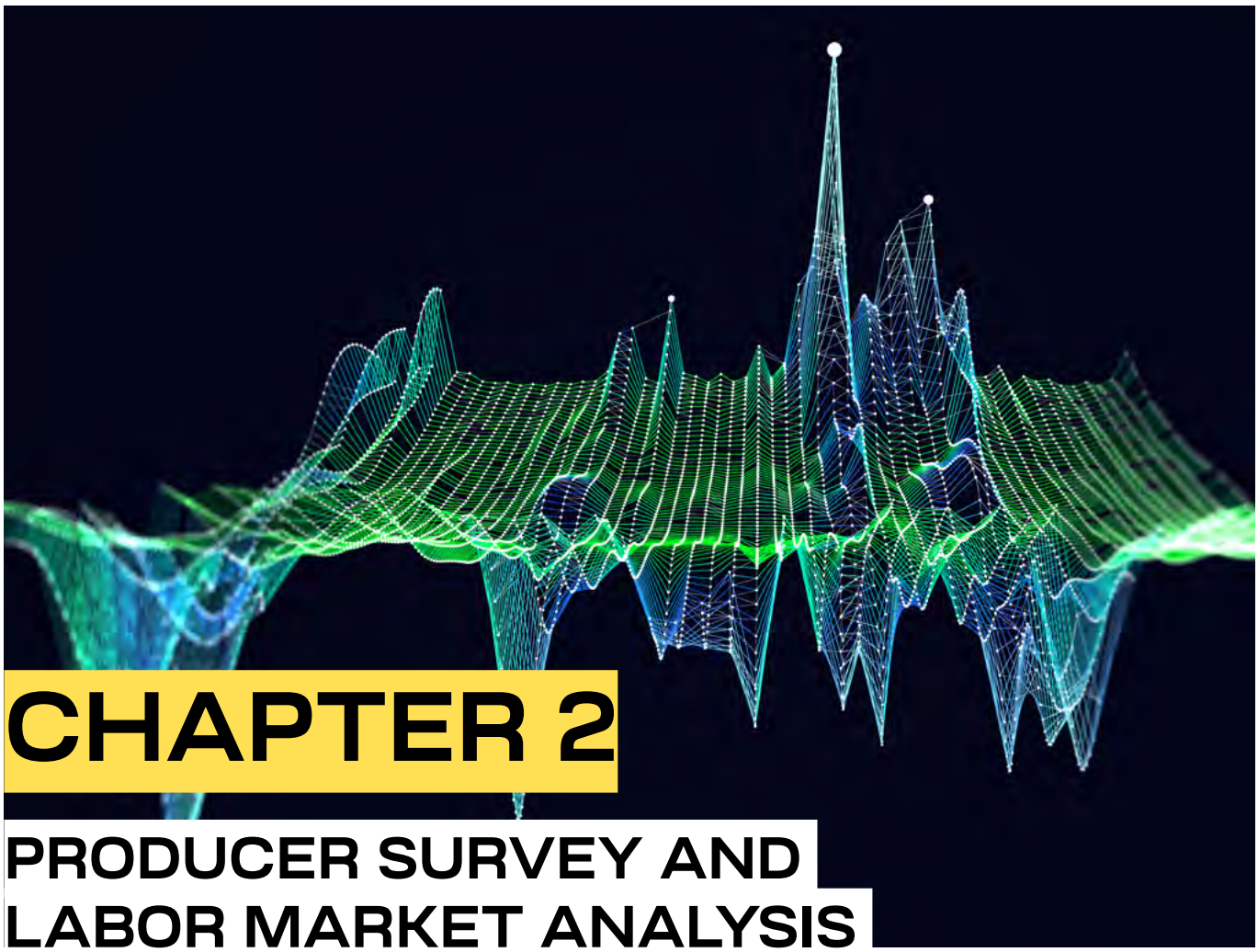
A comparative analysis of the sanctioned trade flows and Ukraine's production-export potential allowed for the identification of a number of products that lie at the intersection of Ukraine's and russia/belarus' international specialization and, therefore, can be substituted—and are already being substituted—with Ukrainian-produced goods on European markets. These include cast iron, ferroalloys, semi-finished products, carbon steel rods and bars, hot-rolled steel, chemical fertilizers, various products of the woodworking and furniture industries, rapeseed oil, ethanol, vodka, electrical cables, polymer materials, turbo engines and their parts, pneumatic rubber tires, and tires for motor vehicles, among others.

Additionally, there is potential in utilizing the substitution effect (the re-orientation of European demand from imports from third countries to imports from Ukraine in the context of strengthened integration ties and the removal of trade barriers), which provides an opportunity for Ukrainian producers to partially occupy the traditional niches of other countries on the European market. Specifically, studies of EU imports from Turkey and China revealed such niches by product groups: metal structures, tractors, buses, electrical conductors, transformers, alarms, lighting equipment, and light-emitting diodes, among others.

3. Simulation using the ITC gravity model and the concept of economic complexity allowed for a quantitative assessment of the unused potential for increasing export shipments of Ukrainian products under further liberalization of access to the European market. It also helped justify promising directions for diversifying this export with the aim of qualitatively changing its structure by increasing the share of complex and high-tech products with a high level of added value. The product groups identified using these methodological approaches for expanding the range of Ukrainian exports to the EU include: refrigeration and freezing equipment, machines for harvesting and threshing agricultural crops, equipment for dairy processing, boilers for central heating, electrical equipment for traffic regulation and control, parts for electric motors and generators, trailers and semi-trailers, fiberglass and multilayer glass insulation products, rubber tires and other rubber products, and more.

The generalized list of priority product positions for Ukraine-EU trade, highlighted according to the three applied directions – a) active increase in shipments after the full-scale invasion; b) potential replacement of imports to the EU from russia/belarus and third countries; c) economic modeling – is presented in Appendix A.





CHAPTER 2

PRODUCER SURVEY AND LABOR MARKET ANALYSIS

In order to determine the optimal conditions for **developing Euro-integration processes across various sectors** of Ukraine's industry, a survey was conducted among a number of domestic producers who with a strong focus on the European market and represent key sectors of the national economy of Ukraine (based on their contribution to GDP, investments, employment, and foreign exchange earnings). The survey involved providing detailed responses to several questions, including both general questions about producers' assessment of sector development prospects, liberalization of access to the European market, the need for state support, and strategic advantages of deepening relations with the EU, as well as specific questions that took into account the particularities of the relevant industry.

To analyze the responses from producers, a systematic approach was applied, covering four main areas. First, the current state of the industry and export prospects to the EU market were assessed, with a focus on the current economic conditions and growth opportunities. Next, the main problems and barriers faced by producers were examined, including certification and regulatory requirements, logistical challenges, and competition in the European market. The following step analyzed potential solutions to these problems, including state support, simplification of procedures, and modernization incentives. The final component addressed strategic cooperation between Ukraine and the EU, identifying mutually beneficial opportunities. This approach allowed for a comprehensive overview of the export potential of the industries and suggested specific paths for integration into the European market.

The results of the survey for each industry are organized into five main sections. The first section provides an informational summary on the development of the industry, prepared by CMD–Ukraine analysts, while the remaining sections present the summarized responses from producers on:

1. **The state of the industry and export prospects to the European Union market.**
2. **The main problems and barriers to entering (or expanding presence in) the EU market.**
3. **Solutions to these problems and the role (support) of the government.**
4. **Cooperation and strategic advantages for the EU. Negotiating positions.**

The Chapter concludes with a brief summary of all the responses received, highlighting the key Euro-integration and other business-related issues most emphasized by the companies, as well as the key current trends and future prospects for the development of domestic industries as seen by the business community at this stage.

AGRICULTURE



POULTRY BREEDING

Information sheet

Over a long period of time, Ukrainian poultry producers have been significantly expanding their presence in global markets. In 2011–2023, the physical volume of poultry meat exports from Ukraine surged more than eightfold – from 49.8 thousand to 424.5 thousand tons.

An important role in boosting the supplies of poultry meat to world markets was played by the closure of the russian and opening of the European sales market, which began with the granting of autonomous trade preferences to Ukraine (2014) and the subsequent entry into force of the Deep and Comprehensive Free Trade Area Agreement with the European Union (2016).

During the period of 2014–2023, Ukrainian poultry meat exports to EU countries rose from 14.1 thousand tons to 171.8 thousand tons. The EU's share in the geographical structure of domestic poultry meat exports increased accordingly from 8.1% to 40.5% (Fig. 2.1).

Among all types of poultry meat, Ukraine supplies the EU mainly with chilled and frozen chicken carcass parts and by-products – they account for over 85% of the relevant supplies. Another 10% is frozen domestic chicken carcasses, not cut into pieces.

During 2014–2021, access to the EU poultry market for Ukrainian producers remained only partially liberalized within the framework of a duty-free tariff quota, which was supposed to gradually grow from 16 thousand tons to 20 thousand tons per year. Along with this, an additional tariff quota of 20 thousand tons per year was provided separately for the HS 0207 12 commodity subgroup, which covers whole frozen chicken carcasses. Import duties on domestic chicken meat in the EU above the tariff quota volumes are in the range of 18.7–100.8 €/100 kg.

An agreement in the form of an exchange of letters between Ukraine and the European Union on amendments to trade preferences for poultry meat... entered into force on February 1,

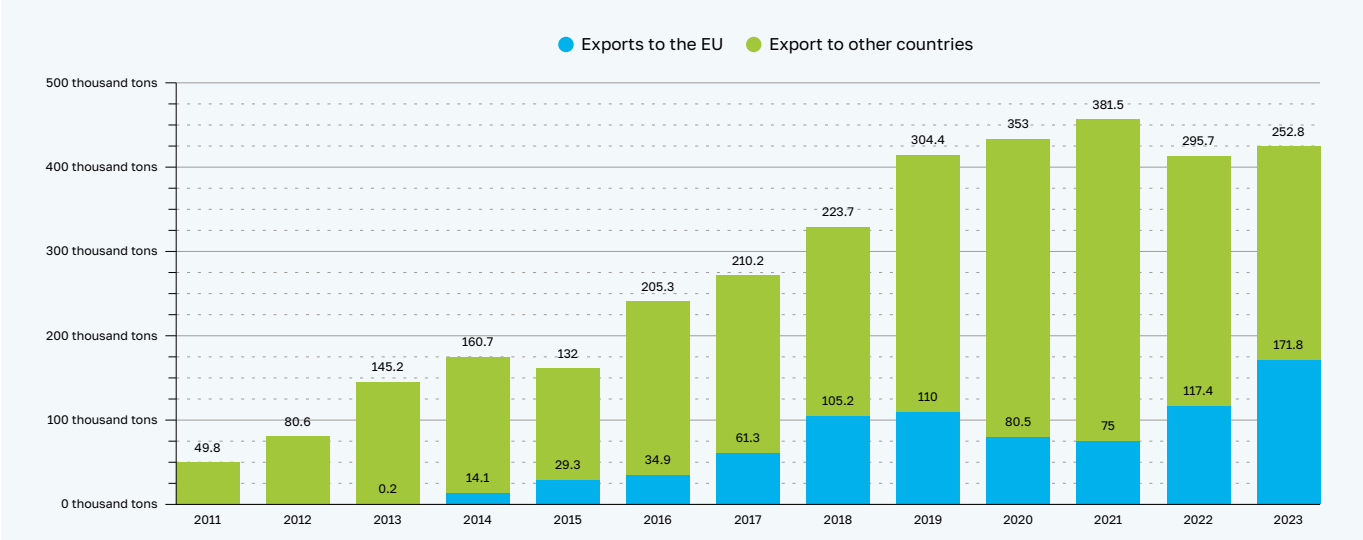


Fig. 2.1. Dynamics of poultry meat exports (HS 0207) from Ukraine to the EU and other countries of the world

2020, by which the volume of the duty-free tariff quota for the relevant products was additionally increased by 50 thousand tons per year.

Since 2015, poultry meat exports from Ukraine to the EU have exceeded the established quotas every year (not taking into account the additional separate quota for HS 0207 12). For instance, in 2015, exports above the quota amounted to 8.7 thousand tons, in 2016 – 10.7 thousand tons, in 2017 – 39.5 thousand tons, in 2018 – 76.2 thousand tons, and in 2019 – 82.3 thousand tons. Even after a significant rise in quotas in 2020, some excess in terms of supply volumes was still observed.

The unilateral abolition of tariff quotas for Ukraine by the European Union from 04.06.2022 made it possible to significantly increase supplies of Ukrainian poultry meat to the EU, which played a particularly important role in the context of a sharp reduction in the domestic market and problems with transporting products to third countries. Thus, despite the devastating consequences of the large-scale invasion, total poultry meat exports in 2022 dropped by only 9.5% in physical volume, and by the end of 2023 they went up by 2.8%.

However, already in 2024, the EU extended the effect of unilateral trade preferences with precautionary measures, which actually return quantitative restrictions on poultry meat supplies to the European market. Thus, the EU set the duty-free volume of imports of Ukrainian poultry meat and products from it until the end of 2024 at 137,042.8 tons. Going to meet European partners, the Government of Ukraine adopted Resolution No. 612 of 30.05.2024, which introduced licensing of exports of certain products to EU member states. In particular, the licensed volume of the quota for poultry meat and by-products (excluding turkeys) amounted to 133.3 thousand tons per year. Thus, in essence, a «voluntary» export restriction was introduced in order to avoid restrictive measures from the EU.

It should be noted that in general, EU countries' poultry meat imports in 2023 amounted to almost 13.2 billion USD, but 93.6% of these imports accounted for trade within the integration association, that is, between the EU countries themselves. Thus, deliveries from third countries account for a small share of the European poultry meat market, but among these countries, Ukraine remains the major supplier with a share of approximately 37%.

In particular, in 2023, the largest suppliers of poultry meat (HS 0207) to the EU from third countries were:

1. **Ukraine – 171.8 thousand tons;**
2. **Britain – 154.1 thousand tons;**
3. **Brazil – 98.6 thousand tons;**
4. **Thailand – 17.0 thousand tons; and**
5. **Chile – 3.5 thousand tons.**



Position of domestic producers





1. State of the industry and prospects for exports to the European Union market

The Ukrainian poultry industry plays a key role in ensuring the country's food security and supporting its economy. The industry not only provides more than 140 thousand jobs, but also remains a budget generator in many territorial communities. In addition, poultry enterprises actively support local communities and develop social infrastructure, which contributes to the stability of regions in these difficult times for the country.

Today, the poultry industry is a guarantor of affordable and full-fledged nutrition for the population, providing it with high-quality food products with high added value. In addition, it plays a key role in ensuring food exports, which allows Ukraine to establish itself as a reliable supplier in global food systems.

The prospects for the development of the industry largely depend on domestic economic conditions, the level of Government support, as well as the ability of manufacturers to adapt to new challenges. Despite the difficult situation, with proper support and investment, the industry has the potential for stable growth and development in the long term.

With the outbreak of the war, the export activity of poultry producers on the European market was intensified, which was conditioned by the blockade of ports and changes in logistics routes, as a result of which products were first exported to neighboring countries, and not to the end consumer directly. The cost of logistics in hryvnia equivalent surged by 2-3 times due to raising tariffs, increasing the transportation leg, devaluation of the national currency, and inflation.

Due to logistics problems, Ukrainian products are becoming less competitive in third markets. Accordingly, access to the market of European countries, including the EU, remains one of the key factors for the possibility of operating and further recovery of the poultry industry in Ukraine.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main challenges for exporting domestically produced poultry meat include the following:

- Difficulties with logistics. The blockade of seaports and the rise in the cost of land logistics (due to increased tariffs, longer transportation leg, devaluation of the national currency, and inflation) led to a loss of competitiveness in third markets.
- The resumption of unilateral trade preferences with precautionary measures from the EU will have a negative impact on both the operation of the poultry sector and its further recovery.

3. Ways to solve problems and the role (support) of the Government

To solve the above problems, the following steps are necessary:

- Negotiations with the EU: Active negotiations on maintaining preferential access to the EU market, ensuring a gradual increase in quotas for duty-free imports of products.
- Opening new markets: Signing new free trade agreements with third countries to reduce dependence on the European market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

The future trade regime between Ukraine and the EU should ensure both transparency and predictability in trade, as well as the gradual integration of the Ukrainian economy, in particular the agricultural sector, into the EU Common Market. Until Ukraine becomes a full member of the EU, the optimal solution may be a quota system based on the level of poultry meat exports from Ukraine in 2023, with a gradual increase in quotas each year.

The strategic benefits of such collaboration for the EU include the following:

- Strengthening EU food security. Ukrainian agribusiness will ensure stable supplies of agricultural products to EU countries, which will help meet growing demand and reduce the risk of food crises.
- Opening new markets for joint exports. Joint ventures between Ukrainian and European agricultural producers will allow for more efficient export of products to third countries, which will strengthen the EU's position in the global food market.
- Maintaining price stability. Ukrainian exports will help maintain a stable level of food prices within the EU, ensuring the availability of food products for European consumers.
- Integrating sustainable standards: Ukraine has started work on introducing European sustainable development standards in the agricultural sector, which will help preserve the environment and ensure safe agricultural production. This will also contribute to achieving the goals of the EU Green Deal.



PIG FARMING

Information sheet

Over the past 10 years, peak pork exports were observed only in 2015, when Ukraine sold a record amount of meat on foreign markets in the amount of 27.2 thousand tons. The main importer of pork in 2015 was the russian federation, where 26.3 thousand tons (97% of total exports) of pork were delivered from Ukrainian producers who received official permission to export this product to the russian federation.

Starting from 2016, export sales volumes began to decline at a rapid pace. Thus, according to the results of 2016, exports dropped by more than 8 times to 3.2 thousand tons compared to 2015, and in 2023 this figure was less than 1 thousand tons.

One of the reasons for this decline was the reduction in the pig population, which was caused by the peak of the African swine fever epidemic, which began in Ukraine back in 2012. Also, from January 1, 2016, russia imposed an embargo on the import of pork of Ukrainian origin, and Ukraine lost its main sales market.

Before the full-scale invasion, the pig population numbered 5.6 million, and pork production was 750,000 tons. At the beginning of 2023, the total pig population was estimated at 4.85 million heads, which is 13.4% less than the figure of the previous year. However, the enhancement of the investment attractiveness of the industry strengthened the optimistic mood of operators, and domestic pig farming started the year of 2024 with a five-million head livestock and slight growth.

According to the results of 2023, external supplies of pork from Ukraine amounted to 890 tons,a threefold increase compared to 293 tons in 2022. The key importers were: UAE (46.7% of total Ukrainian exports), Hong Kong (30.2%), Bahrain (11%), Ivory Coast (7.2%), and Malaysia (2.8%).

According to experts, 2024 turned out to be unusual for foreign trade in pork. The difference between the volumes of pork imports and exports from Ukraine has significantly decreased compared to previous years. Total imports for January-June of this year amounted to 1.63 thousand tons, which is 3.5 times less than for the first half of 2023. At the same time, exports fell by only a quarter and amounted to 1.2 thousand tons, already exceeding the volumes of last year's shipments to foreign markets. The geography of trade remained unchanged: the main exports are directed to the UAE, and imports come mainly from Canada.

The decline in pork prices on the domestic market, observed in the first half of this year, has created a barrier to entry for imported pork and at the same time contributes to improving the competitive position of products on foreign markets.

There was almost no export of Ukrainian pork to the European Union market, except for occasional meager supplies to Bulgaria, Greece, Spain, and Cyprus. The main reason for the lack of trade with European countries was the need to adapt the Ukrainian legislation to European norms and standards in this area.

It is also worth noting that before the EU Council adopted a resolution to suspend import duties and quotas on Ukrainian exports (June 2022), tariff quotas were in effect within the framework of the Association Agreement for imports of Ukrainian pork (HS 0203) into the EU, which ranged from 20,000 to 40,000 tons, depending on the type of meat products.

In 2023, the EU imported 236 thousand tons of pork from third countries. The main supplying countries were:

1. **Great Britain – 51 thousand tons (22% of total imports);**
2. **Chile – 11 thousand tons (4.7%); and**
3. **Switzerland – 5 thousand tons (2.1%).**

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The prospects for the development of the pig industry in Ukraine remain subdued due to the limited capabilities of the domestic market. Pork consumption in Ukraine does not show a tendency to any significant growth, and the market is mainly redistributed between existing players without a considerable increase in volumes. Although the emergence of new sources of feed, in particular waste from the alcohol industry, may slightly enhance the production efficiency, this factor is not able to radically change the dynamics of the domestic market due to the limited demand.

As for the prospects for entering the EU market, competition is high here and regulatory requirements are constantly tightened. European markets require significant investments in compliance with product safety and animal welfare requirements, which is complicated by the lack of government support and available financing. Although Ukrainian pork could potentially be competitive in terms of price, the implementation of European requirements may reduce its advantages in price competition. Also, exports to the EU remain blocked due to the unregulated consequences of African swine fever (ASF) in Ukraine, which calls into question the short-term prospects for entering the European market.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers to entering the European market are:

- Regulatory environment: The EU has a sophisticated and stringent regulatory system for product safety, animal welfare, and ASF outbreak control. For Ukrainian producers, this means significant investment to comply with these requirements.
- Consequences of ASF outbreaks: Ukraine still has problems with ASF epidemic outbreaks and their consequences, which is why pork exports to the EU remain banned.
- Lack of sufficient support from the Government: Investing in adaptation to EU requirements is difficult due to the lack of available funding and state support.

3. Ways to solve problems and the role (support) of the Government

- Active support of the Government in implementing zoning to unblock exports to the EU. It is expected that decisions on zoning and EU verification missions will be considered at the end of 2024. The Government's task is to implement and accelerate all necessary decisions to confirm Ukraine's readiness to provide evidence of the safety of Ukrainian production for the EU.
- Financial support: It is important to ensure access of Ukrainian producers to EU financial instruments to adapt to new requirements.
- Special funds: It is necessary to provide state funds to compensate producers for losses due to ASF outbreaks or other crisis situations.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukraine can become a strategic partner for the EU in pork supply, which will reduce dependence on suppliers outside the EU. The main advantage of Ukrainian products is proximity to the market, which will allow the EU to have reliable supplies of pork from a neighboring country.

Also, within the framework of negotiations on accession to the EU, it is worth raising the issue of revising tariff quotas for pork after resolving the ASF issues and opening up the exports.





HONEY PRODUCTION

Information sheet

Ukraine remains a significant supplier of natural honey to the EU. The initial duty-free tariff quota for this product was only 5,000 tons and was supposed to gradually increase to 6,000 tons by 2021. In 2017, the European Union introduced an additional temporary quota (for 3 years) of 2,500 tons, which did not have much of an impact, considering that during 2011–2021, honey exports from Ukraine to the EU surged more than tenfold – from 5,000 to 53,800 tons. This was facilitated, among other things, by the fact that the EU import duty on natural honey above the quota is only 17.3%.

After the large-scale invasion, Ukrainian exports of natural honey to the EU decreased slightly, but remain significant: 45.8–46.1 thousand tons in 2022–2023. Among non-EU countries, Ukraine was second only to China in honey supplies to the EU market in 2023. Ukraine's share in total exports to the EU was 28.0% (Fig. 2.2).

Other significant suppliers of honey to the EU in 2023 were:

1. **China in the amount of 60.1 thousand tons (36.7% of total imports to the EU);**
2. **Argentina – 21 thousand tons (12.5%);**
3. **Mexico – 95 thousand tons (6.6%);**
4. **Cuba – 4.7 thousand tons (2.9%);**
5. **Vietnam – 4.7 thousand tons (2.9%).**

In the first five months of 2024, Ukraine sold almost 34 thousand tons of honey to the EU market, worth $57.8 million.

Despite the positive decision of the EU Council to extend the

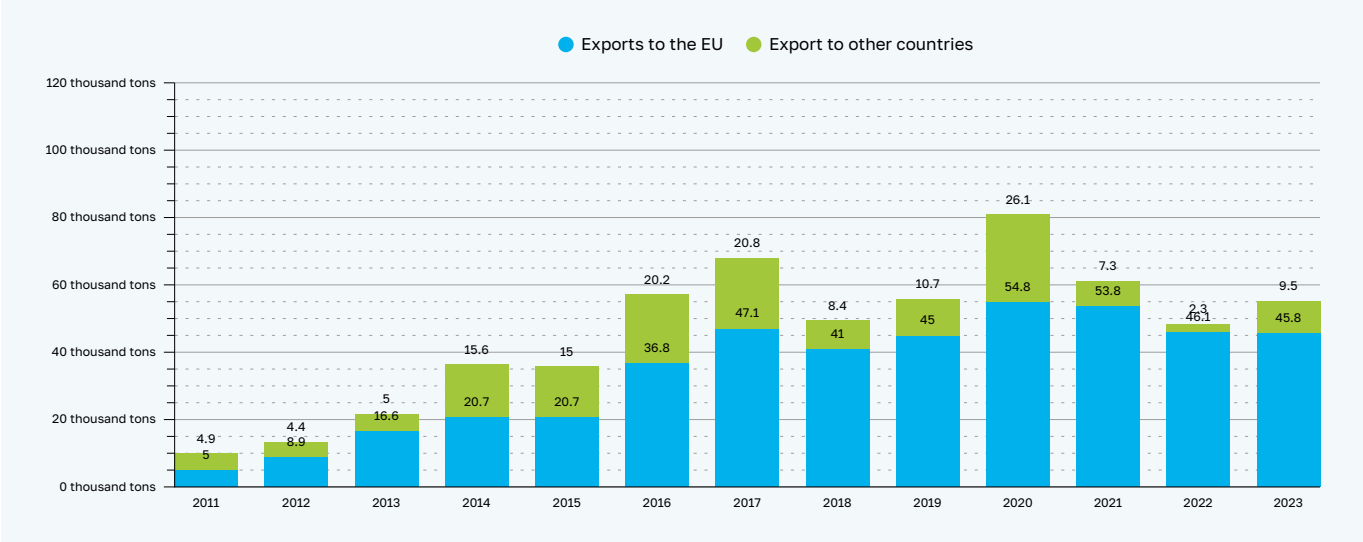


Fig. 2.2. Dynamics of exports of natural honey (HS 0409) from Ukraine to the EU and other countries of the world

suspension of import duties and quotas on Ukrainian exports to the EU for another year (until June 5, 2025), tariff quotas were introduced for six Ukrainian products, including natural honey. According to this decision, the permissible annual volume of Ukrainian honey exports to the EU will be 44,418 tons.

In addition, according to the European Commission, cases of fraud and counterfeiting have become more frequent during honey exports to Europe. As a result, in order to improve the traceability of the honey supply chain to the European market, the EU has decided to strengthen control by exporting countries over market operators. From November 30, 2024, Ukrainian honey and other beekeeping products, intended for human consumption, may be imported into the EU only if they are shipped, received and/or manufactured in establishments listed by the competent authority of the exporting country – in our case, the territorial body of the State Service for the Protection and Promotion of Food Safety and Consumer Protection.

Position of domestic producers

BEEHIVE STANDARD

1. State of the industry and prospects for exports to the European Union market

Ukraine is one of the world's leading honey exporters, with the European Union as its major market. In recent years, honey exports from Ukraine to the EU have remained stable, although they have dropped slightly following the large-scale invasion. Ukraine accounts for over 28% of total honey imports to the EU and is second only to China.

According to domestic honey producers, demand for Ukrainian honey remains high, which provides prospects for stable production and export. However, producers assess the production prospects as moderately positive, since the volume of domestic consumption is low, and export remains the main sales channel for products, the restriction of which does not encourage any boost in the production volumes.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems for exporting honey to the EU market are:

Restrictive trade measures: The EU sets tariff rate quotas for Ukrainian honey, which limits the possibility of increasing exports. Duty-free exports are limited by quotas, and exceeding this volume is accompanied by significant duties;

Enhanced control over honey producers: from 2024, Ukrainian honey can only be exported to the EU through registered producers. This creates additional difficulties, as most beekeepers in Ukraine are not registered, which makes product traceability more complicated.

3. Ways to solve problems and the role (support) of the Government

- Return to a duty-free regime: The Government of Ukraine should strive to return to a zero-duty and quota-free regime for honey exports to the EU, as was the case in 2023.

- Support for small-scale beekeepers: The government should support small producers, including assisting with the registration of apiaries and the modernization of production to meet EU requirements for product traceability.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Duty-free exports of honey from Ukraine, as one of the key suppliers of honey to the EU, will help reduce the average price of honey imports, which will allow the EU to obtain more favorable conditions from other suppliers (China, Argentina, and Brazil).



OIL AND FAT INDUSTRY



Information sheet

Ukraine is the world leader in the production and export of sunflower oil, selling its products in the markets of more than 150 countries around the world. Approximately 93% of the total volume of Ukrainian sunflower oil exports is supplied to four main regions: Europe, Southeast Asia, Asia, and the Middle East. Another 4% of revenues are provided by oil exports to African countries.

Starting from 2017, there has been an increase in the volume of sunflower oil exports compared to previous years, caused by the growth in production volumes and demand for Ukrainian oil among other countries. For instance, in 2017, compared to 2011, the volume of external supplies of this product doubled – from 2.7 to 5.8 million tons.

Exports peaked in 2020, when 6.9 million tons of Ukrainian-produced sunflower oil were sold on foreign markets. One of the reasons for this record figure was the surge in world prices for other vegetable oils, in particular palm and soybean ones.

For 11 months of 2022, 10 of which Ukraine resisted russian aggression, foreign exchange earnings from the export of oilseed oil and fats amounted to 5.43 billion USD, while for the whole of 2021 it was 7 billion USD. The boost in world prices, which was caused by a number of factors, in particular, the war of russia against Ukraine, did not compensate our economy for the decline in production and exports, and Ukraine lost a significant share of added value. Despite this, Ukrainian producers managed to maintain world leadership in sunflower cultivation and sunflower oil production in 2022.

The war negatively affected the functioning of the oil and fat sector of Ukraine. The work of oil and fat extraction enterprises in the combat zones and in temporarily occupied territories was stopped. The blockade of the ports in the Black and Azov Seas in the first months of the war led to the suspension of the export of sunflower oil. The vegetable oil sector was forced to form new logistics chains as soon as possible and search for alternative sales markets.

The reorientation of exports to shipments with other modes of transport, in particular by rail, has significantly changed the geography of sunflower oil exports. In 2022-2023, the main importing countries of Ukrainian oil were the EU countries, while in 2020-2021 the list of major importers included India, China, and the Netherlands.

In 2023, the volume of Ukrainian sunflower oil exports to the EU grew by 26.7% compared to 2021 (from 1.5 to 1.9 million tons), and its share in total Ukrainian exports of this product was 33.3%. Other importing countries were: Turkey, where Ukraine exported 1.1 million tons of sunflower oil (19% of total exports), China – 0.6 million tons (10.5%), and India – 0.4 million tons (7%).

According to the results of 2023, Ukraine ranked first among the countries supplying sunflower oil to the EU, the share of imports of which amounted to 91% of the total imports of this product by European countries (Fig. 2.3).

Rapeseed cultivation and rapeseed oil production in Ukraine began to develop actively in the early 2000s. This was connected with the growing demand for this type of oil, especially in Europe, where rapeseed oil is widely used both as a food product and for the production of biofuels.

Today, Ukraine is among the top 10 countries in the world in the production and export of rapeseed oil.

In 2019, the country demonstrated impressive growth in exports of this product. Rapeseed oil exports surged by more than 13 times compared to 2011 (from 11.3 to 150 thousand tons), which indicated a significant increase in demand for Ukrainian rapeseed oil on world markets. This result was made possible, among other things, thanks to technology development and efficient operation of the industry. The main buyers of Ukrainian rapeseed oil are European and Asian countries.

In 2023, for the first time in all years, 1 million tons of rapeseed

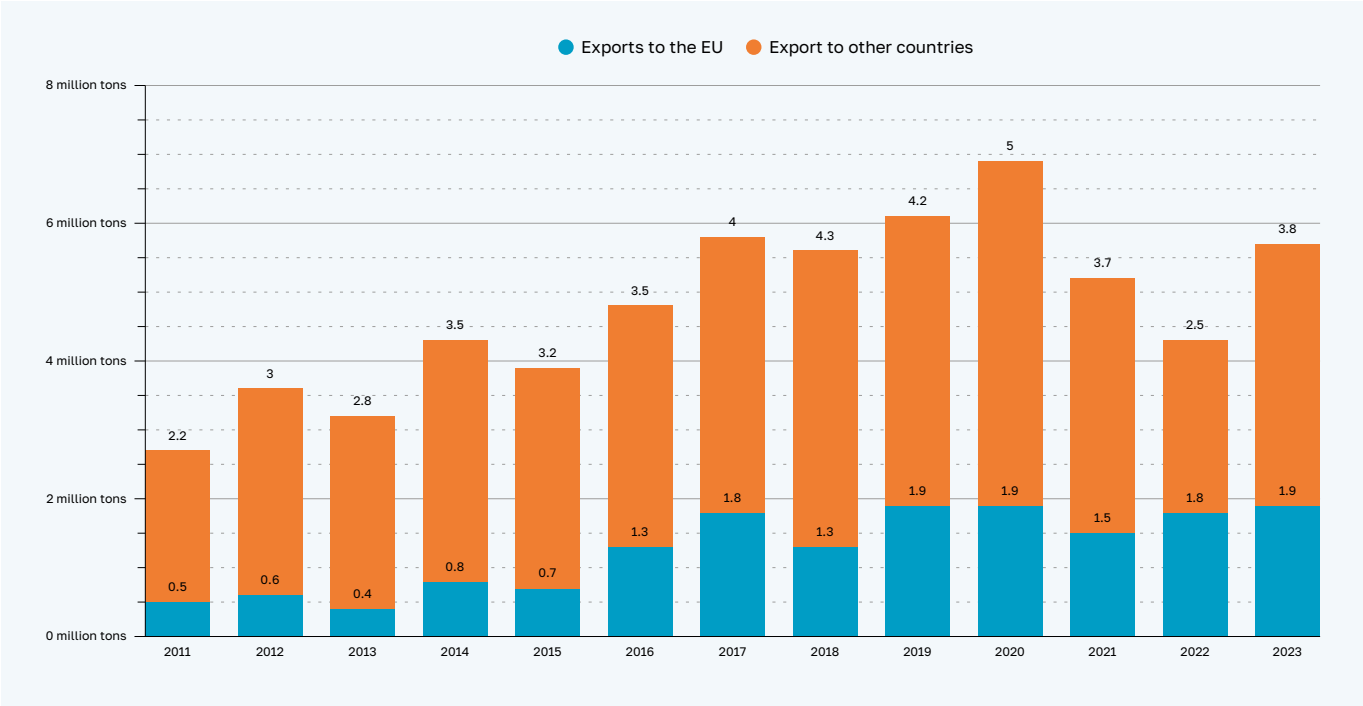


Fig. 2.3. Dynamics of exports of sunflower oil (HS 1512 11, 1512 19) from Ukraine to the EU and other countries of the world

were processed in Ukraine (22.3% of the 2023 harvest), and rapeseed oil exports reached a record high of over 378.8 thousand tons, which is 2.5 times more than in 2019 and 5.8 times more than in the previous year.

High demand on the global market against the backdrop of attractive prices contributed to a significant growth in the pace and volume of rapeseed oil exports in 2023. Difficulties with the purchase of sunflower during the off-season also stimulated Ukrainian plants to intensify rapeseed processing.

The largest amount of domestically produced rapeseed oil was sold on the markets of EU member states, namely 115 thousand tons, which is 30% of Ukraine's total exports of this product. Second place was taken by deliveries to China, where Ukraine exported 109.5 thousand tons (28.9% of total exports).

In total EU rapeseed oil imports, Ukraine ranked first according to the results of 2023. The share of imports of the Ukrainian origin oil was 33.6% (115 thousand tons).

belarus can be considered Ukraine's main competitor in the supply of these products to the EU, which in 2023 took second place with a share of 32.8% (112 thousand tons) in total EU imports. The United Kingdom is in third place with a share of 16.2% (55.5 thousand tons) (Fig. 2.4).

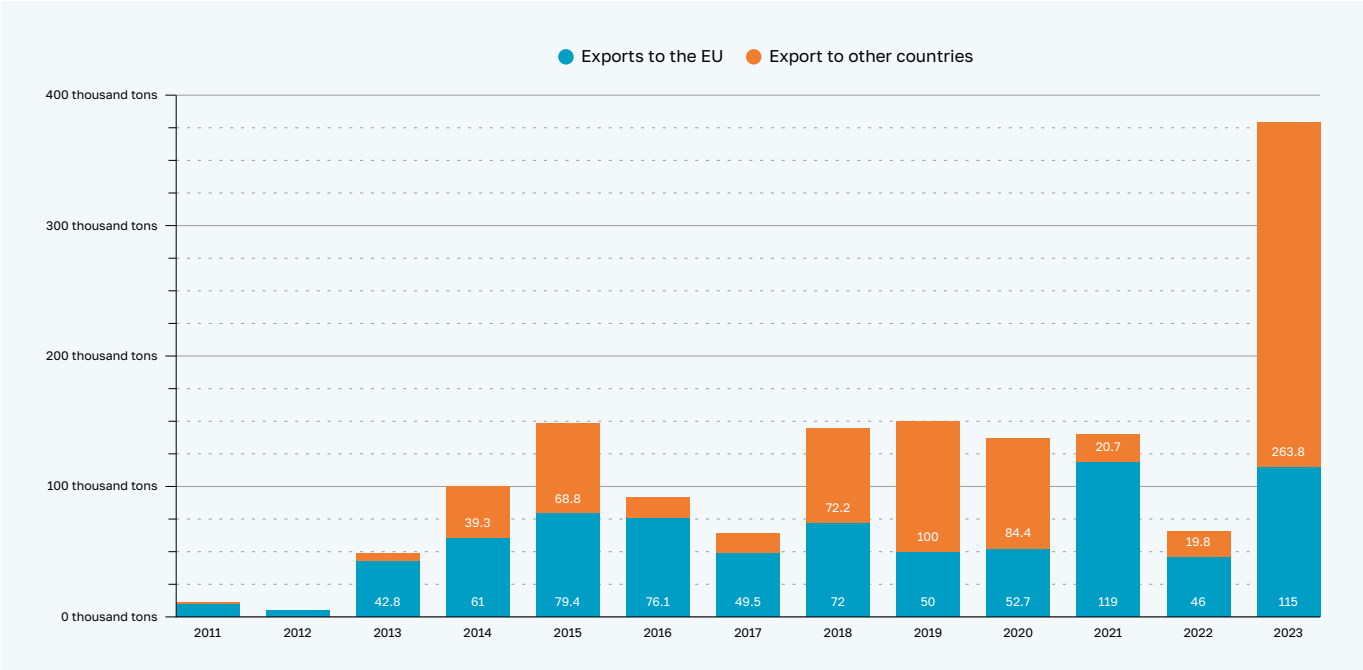


Fig. 2.4. Dynamics of exports of rapeseed oil from Ukraine (HS 1514 11, 1514 19) to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The prospects for the production of sunflower and rapeseed oil in the coming years will depend significantly on the volumes of harvesting of the respective oilseed crops and the distribution of these volumes between domestic processing and export abroad. In the current 2024, the Ukrainian market demonstrates a high level of competition for oilseed raw materials. This situation has developed due to the reduction in the area for sown sunflower and rapeseed and the decline in the rapeseed yield.

A record amount of rapeseed was processed in the 2023/24 MY, indicating the efficient operation of the processing industry. However, it is expected that the drop in yields and the weakening of logistical shocks will lead to an increase in exports of raw materials instead of their processing within the country, which will negatively affect the level of oil production. In addition, the growth in demand from the EU for Ukrainian raw materials may contribute to a decrease in domestic processing.

According to forecasts, Ukraine will maintain its leadership in the production and export of sunflower oil. The share of Ukrainian products in world exports in the 2023/24 MY will be 41.8%, and in 2024/25 MY it is expected to be at the level of 42.1%.

According to the Ukroliyaprom Association, in the 2023/24 MY, there was a rise in the share of sunflower oil exports to EU countries, in particular to Romania, Spain, the Netherlands, and Poland. At the same time, there is a significant decline in exports to India, which opens up opportunities for raising exports to this region in the future.

These trends suggest that in the absence of mechanisms to stimulate domestic processing of oilseeds in Ukraine, the level of vegetable oil production may drop, and raw material exports will be intensified. However, stable demand for Ukrainian products in the EU is expected, especially for rapeseed oil, which is widely used for industrial purposes.

2. Main problems and barriers to entering (or expanding presence in) the European market

The lack of effective mechanisms to stimulate the growth of the share of oilseed processing within the country will lead to a decrease in the level of vegetable oil production in Ukraine and, as a result, to a reduction in the supply of finished products – vegetable oils – to the EU.

3. Ways to solve problems and the role (support) of the Government

For the further development of vegetable oil production, it is necessary to:

- Establish an additional levy to the export duty on rapeseed when the annual export volume exceeds 100 thousand tons, similar to the mechanism for sunflower, in order to stimulate processing inside the country; and
- Introduce a similar measure for soybean seeds, since this crop is important for the development of the oil and fat industry of Ukraine, and a significant share of it is also exported without processing.

4. Cooperation and strategic benefits for the EU. Negotiating positions

When conducting negotiations with EU countries it is expedient to provide for the following:

- To continue the validity of special measures for export duties on sunflower seeds as provided for in Annex I-D to Chapter 1 of Section IV «Trade and Trade-related Matters» of the Agreement on association. At the same time, it is necessary to consider the possibility of its extension on rapeseed and soybean;
- To cooperate in the biodiesel industry: to create a joint production cycle with the involvement of Ukrainian industry in the specified industry. Potentially, such collaboration can stimulate the boost in biodiesel production and enhance the efficiency of its production by dividing the process into stages and specializing individual enterprises at individual stages;
- To replace rapeseed oil imports from belarus and russia with Ukrainian products, which will allow the EU to reduce dependence on countries that threaten European security and cut down the financing of their economies that support military operations on the territory of Ukraine.



FOOD INDUSTRY



MILK PROCESSING

Information sheet

In the period from 2011 to 2015, there were almost no exports of dairy products to the EU countries. According to the results of 2015, the main consumers of Ukrainian products on foreign markets were Moldova (14.2 thousand tons), Kazakhstan (11.3 thousand tons), Turkmenistan (7.7 thousand tons), and a number of other CIS countries.

Since 2016, Ukraine has begun to ramp up its exports of milk and dairy products to the EU. In 2017, the volume of exports of domestic products to the European market grew by 7 times compared to 2016 and amounted to 3.5 thousand tons, and in 2018 this figure has already increased to 6.6 thousand tons.

Until the beginning of 2022, the share of milk and dairy product exports to the European market remained quite insignificant compared to deliveries to other countries of the world, reaching its maximum value of 5.1% in 2019.

It is worth mentioning that in the period from 2014 to 2021, within the framework of the association agreement, Ukraine received duty-free tariff quotas from the EU for the supply of milk and various types of dairy products. For example, in 2020, the annual quota for milk, cream, condensed milk, and yogurts amounted to 9.6 thousand tons and was utilized by Ukrainian producers by only 0.3%, for powdered milk – 4.3 thousand tons (utilized by 14.9%), and for butter and milk pastes – 2.7 thousand tons (utilized by 5.9%) (Fig. 2.5).

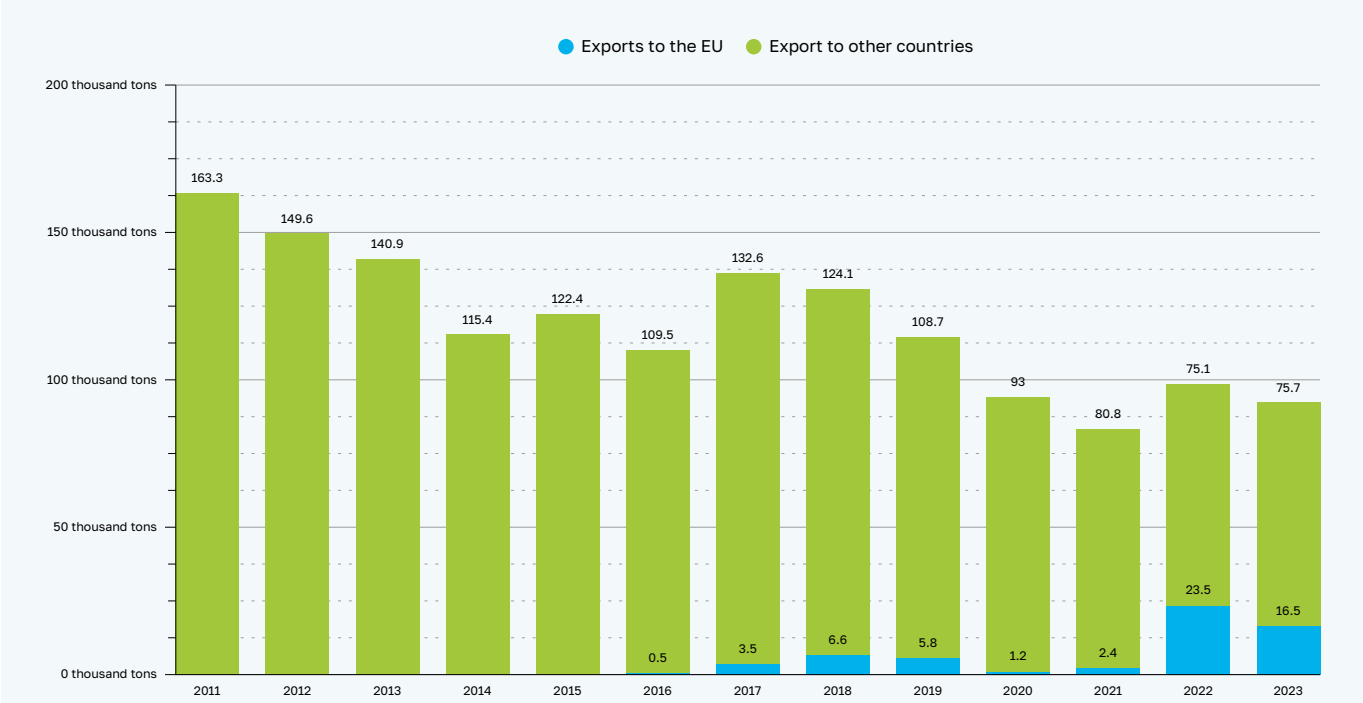


Fig. 2.5. Dynamics of exports of milk and dairy products (HS 0401-0406) from Ukraine to the EU and other countries of the world

In 2022, in connection with the full-scale invasion of the russian federation, the EU adopted a resolution on temporary trade liberalization measures for Ukraine, which allowed Ukrainian dairy products to be exported to the European market without tariff quotas and other trade restrictions. The volume of exports to the EU in 2022 surged by almost 10 times, to 23.5 thousand tons, compared to 2021, and its share in total Ukrainian exports was almost 24%. In May of this year, the temporary lifting of precautionary measures for exports from Ukraine was extended by the EU Council and will be in effect from June 6, 2024 to June 5, 2025.

According to the results of 2022, the main categories of dairy product exports from Ukraine to the EU (in physical equivalent) were powdered milk (47% in the total structure of exports to the EU), butter (29.6%), and cheese products (13.8%).

In 2023, there was a decline in the volume of dairy product exports from Ukraine. Total exports went down by 6.5%, from 98.6 thousand tons to 92.2 thousand tons, compared to 2022, while exports to EU countries – by 30%, from 23.5 thousand tons to 16.5 thousand tons. Among the factors that influenced the reduction in Ukraine's dairy product exports in 2023 were the shortage of raw milk in the domestic market, intensified consumer demand, and the gradual equalization of prices for raw milk of Ukrainian and European origin, as well as logistical problems.

As of May 2024, a total of 58 domestic producers have permits to export dairy products from Ukraine to the EU. Their output is raw milk, ice cream, dairy products, colostrum, and colostrum-based products. Since the beginning of 2024, Ukraine has exported to the EU 30% of its total dairy exports.

However, despite the boost in exports to European countries, Ukraine's share in the EU's total imports of milk and dairy products is insignificant. According to the results of 2023, the share of Ukrainian products in EU imports was only 1.4%.

The undisputed leader in exporting milk and dairy products (HS 0401-0406) to the EU remains the United Kingdom, with an import share of 86% in 2023, which exported over 1 million tons of dairy products to the European Union countries.

Ukraine's main trading partner in 2023 was Moldova (41% of total exports), to which domestic producers exported 37.9 thousand tons of dairy products. The main consumers of Ukrainian dairy products among EU countries last year were: Poland (9.3 thousand tons, 10% of total Ukrainian exports), Bulgaria (3 thousand tons; 3.2%), and the Baltic countries (2.1 thousand tons; 2.3%).



Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The Ukrainian dairy industry has significant potential for growth in both national and international markets. Domestic consumption of milk and dairy products is projected to reach 220 kg per capita per year in the coming decades, indicating potential for production growth. However, this requires the modernization of existing factories and the construction of new ones to improve quality and reduce costs.

In terms of exports, the EU remains an important market for Ukrainian dairy products, especially for countries with a milk deficit, such as Bulgaria, Romania, Slovakia, and the Czech Republic. At the same time, Ukrainian products are becoming of interest to traditional "dairy" countries, such as Poland and Germany. The boost of raw milk production and improved maritime logistics will allow for increased exports to key regions, such as MENA and Southeast Asia.

2. Main problems and barriers to entering (or expanding presence in) the European market

Main problems and barriers for the export of Ukrainian dairy products to the EU market:

- Insufficient state support: dairy enterprises need state support programs to modernize their production facilities, introduce new technologies, and enhance their energy efficiency;
- Investment climate: insufficiently favorable conditions for attracting investments in the dairy industry, in particular due to the lack of transparent and understandable legislation and long-term operation rules;
- Insufficient collaboration with the EU: Ukraine should participate more actively in EU programs aimed at supporting the development of agriculture and the food industry, as well as cooperate more closely with European experts to exchange experience and receive advice;
- EU quotas and safeguards: the introduction of quotas on the import of Ukrainian dairy products is unjustified and limits the potential of Ukrainian producers. This contradicts the principles of free trade and negatively affects the trade balance, as the EU exports more dairy products to Ukraine than it imports.

3. Ways to solve problems and the role (support) of the Government

To improve the industry's operations and export conditions and to expand the presence of Ukrainian dairy products on the EU market, the Ukrainian Government should:

- Harmonize legislation in the field of food safety, veterinary medicine, and ecology with EU requirements, ensuring transparency and efficiency of quality control systems.
- Modernize production facilities through state support programs aimed at introducing new technologies and enhancing the energy efficiency of enterprises.
- Improve the investment climate to attract European investors to the dairy industry of Ukraine, in particular by simplifying legislative norms and ensuring stable conditions for investment

4. Cooperation and strategic benefits for the EU. Negotiating positions

Cooperation with the EU and strategic benefits for the dairy industry should take place in the following areas:

- Financial support from the EU: Using EU financial instruments to support Ukrainian dairy products' exporters will help strengthen cooperation and expand the presence of Ukrainian products on European markets.
- Joint projects and brands: Joining efforts of Ukrainian and European companies for joint production and marketing of dairy products on the global market. This also includes creating joint brands to promote Ukrainian dairy products on the European market and participating in international exhibitions and forums to increase product awareness.
- Implementation of European standards: Joint work on harmonizing Ukrainian legislation in the field of food safety, veterinary medicine, and sanitation with European standards. This will allow to raise the quality level of Ukrainian products and to enhance the compliance with EU requirements, which will facilitate access to the European market.
- Attracting European investment: Creating a favorable investment climate to attract European investment into the dairy industry of Ukraine, in particular through the transfer of European technologies for milk production, storage, and processing. This will contribute to the establishment of state-of-the-art dairy farms with high levels of productivity and animal welfare, and will also increase the demand for European equipment.
- Economic and social impact: Boosted exports of Ukrainian dairy products to world markets will contribute to the creation of new jobs in both Ukraine and the EU, as well as increase the economic opportunities of both sides through the development of the dairy industry and related production chains.



SUGAR PRODUCTION

Information sheet

Until 2014, Ukrainian sugar had almost not been exported to EU markets. However, since 2015, our producers have been using a tariff quota that allowed them to supply up to 20.07 thousand tons of sugar annually without paying the import duty (419 euros per ton of net weight). For the period from 2015 to 2021, export volumes fluctuated within the established quota, ranging from 14.8 thousand tons to 26.9 thousand tons.

However, in 2022, exports surged by almost 5.5 times, reaching 146.7 thousand tons, and in 2023, they were once again increased by more than 3 times, amounting to 484.5 thousand tons. In the first quarter of 2024, Ukrainian sugar exports to the EU reached almost 146.0 thousand tons, which is 16.7% higher than the figures of the same period of the previous year.

In 2023, Ukraine became the largest exporter of sugar to the EU among countries that are not members of this association, providing 36.6% of imports in physical volumes and 36.2% in value terms (Fig. 2.6).

At the beginning of 2024, sugar exports to European countries continued to grow, reaching the maximum volume provided for by the EU resolution for the export of Ukrainian sugar to European

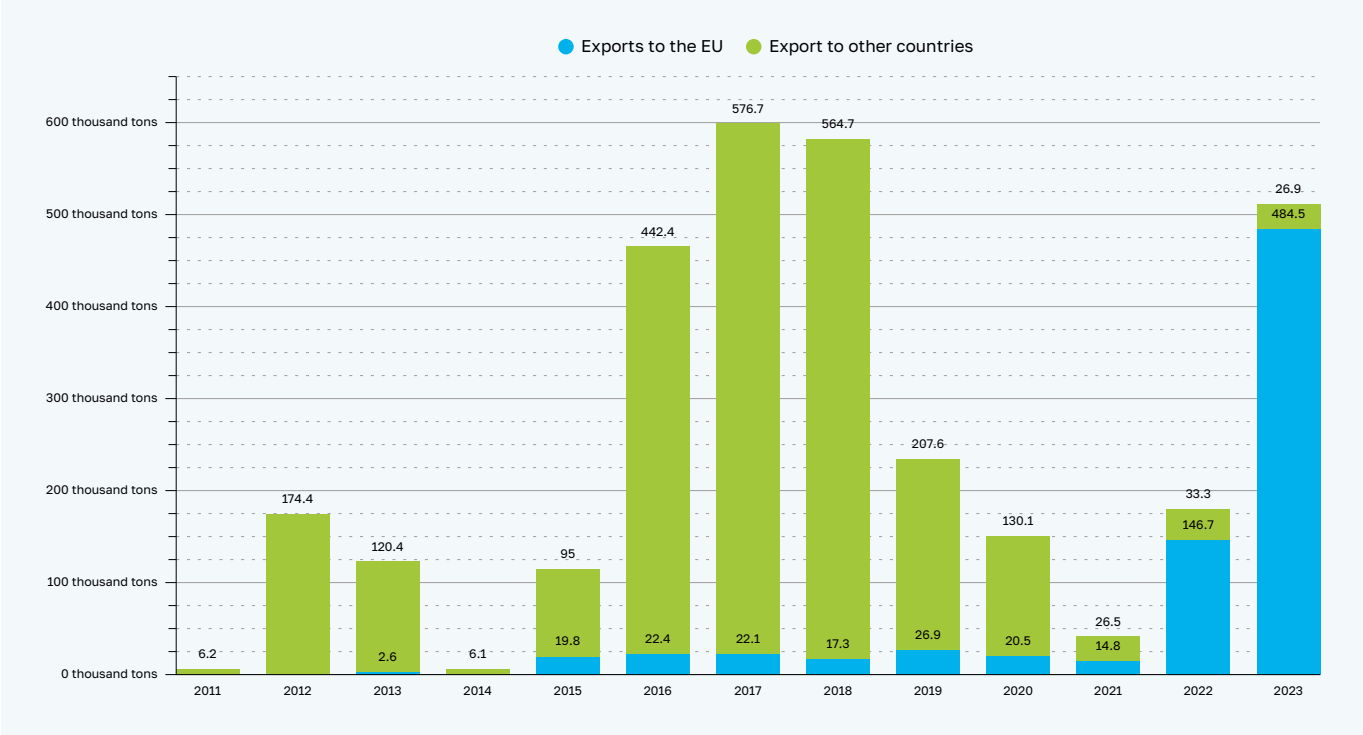


Fig. 2.6. Динаміка експорту з України цукру з цукрових буряків (HS 1701 99) до ЄС та інших країн світу

Union countries in the current year.

In May 2024, the National Association of Sugar Producers of Ukraine «Ukrtsukor» appealed to the Cabinet of Ministers with a request to establish a zero quota for sugar exports to the EU for 2024. The Government decided to establish a zero quota, which will be valid from June 1 until the end of 2024. This restriction applies only to the European market, while other markets remain open to Ukrainian exporters.

At the same time, due to the excess import volumes of Ukrainian sugar, the EU has reinstated tariff quotas from the Deep and Comprehensive Free Trade Area (DCFTA) for imports of Ukrainian sugar since July 2, 2024. Since June 6, 2024, new autonomous trade measures have been in effect, which include an "emergency brake" for seven agricultural goods, including sugar, which is automatically triggered when the average annual import figure for the period from July 1, 2021 to December 31, 2023 is reached.

Since sugar imports from Ukraine exceeded the established quota at the beginning of 2024, additional imports will continue with most-favored-nation duties (EUR 419 per ton), and a new tariff quota of 109,438.62 tons will be established from January 1, 2025 to June 5, 2025.

According to 2023 data, the main competitors in sugar supplies to the European market for Ukraine are:

1. **Mauritius in the amount of 116 thousand tons (8.8% of total imports to the EU);**
2. **Brazil – 108 thousand tons (8.2%);**
3. **Cambodia – 95 thousand tons (7.2%);**
4. **Guatemala - 76 thousand tons (5.8%);**
5. **Morocco – 57 thousand tons (4.4%).**

It should be noted that these countries primarily supply sugar from cane, not from beets. Given this, Ukraine's leadership in the segment of supplies of beet sugar to the EU is undeniable.

Position of domestic producers

ASTARTA-KYIV
agri-industrial holding

1. State of the industry and prospects for exports to the European Union market

The Ukrainian sugar industry has a strong export potential, producing up to 1.8 million tons of sugar on a sugar beet area of 250 thousand hectares in the 2024/25 marketing year. At the same time, domestic consumption dropped to 900 thousand tons due to the outflow of the population abroad and the decline in purchasing power. Accordingly, about 900 thousand tons of sugar are exported. After the abolition of import duties as part of the EU trade support measures for Ukraine, exports to the EU countries increased significantly, and 77% of total exports in the 2023/24 marketing year fell to the European Union.

In addition, the resumption of maritime transport in late 2023 allowed for the expansion of exports to the markets of the Mediterranean, West and North Africa (Turkey, Libya, Lebanon, and Cameroon), and European countries that are not members of the EU (North Macedonia). The prospects for further export development depend on the stability of maritime logistics and further conditions for access to the EU market.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems for Ukrainian sugar exports to the EU are:

- Logistics costs: the cost of delivering Ukrainian sugar has surged by 2.5-3 times due to security risks associated with russian aggression. European sugar has a competitive advantage due to substantially cheaper logistics, which remains stable;
- Competition with European producers: despite the fact that the EU market is in short supply, European farmers express concern about the increase in imports of Ukrainian sugar, which, in their opinion, is crowding out local producers. However, there is no factual evidence that Ukrainian exports are harming the European market; and
- Introduction of quotas: the potential introduction of quotas on Ukrainian sugar imports to the EU after the end of autonomous trade preferences will become a significant obstacle to exports.

3. Ways to solve problems and the role (support) of the Government

To improve the conditions for exporting Ukrainian sugar to the EU market, the Ukrainian Government should take the following measures:

- Introduction of a system of export quotas and licensing: this will enable transparent regulation of export volumes and prevent exceeding permissible quotas on the EU market;
- Removal of products that are not sugar from the «sugar quota»: it is important to clarify the composition of the quota so that products that are actually not sugar (for example, maltodextrin) do not limit the volume of Ukrainian sugar exports; and

- Addressing the issue of disinformation: it is necessary to actively disseminate objective information about the impact of Ukrainian sugar on the EU market, as there is currently no evidence that Ukrainian exports cause any negative consequences for European farmers.

4. Cooperation and strategic benefits for the EU. Negotiating positions

The Ukrainian sugar industry has several important strategic advantages for the European Union, which makes cooperation between Ukraine and the EU mutually beneficial:

- EU food security: Strengthening collaboration with Ukraine will help mitigate the risks of instability in the European market and ensure stable sugar supplies. This will reduce dependence on imports from countries with high risks to the sustainability of production, such as deforestation or unstable trade policies.

- Attracting European investors: Joint projects with European companies provide mutually beneficial opportunities. On the one hand, this will allow modernizing the Ukrainian sugar industry and enhancing its energy efficiency and environmental friendliness. On the other hand, European companies will have the opportunity to expand the geography of their production and increase export potential to third-country markets, using Ukrainian capacities.

- Improving the quality and environmental friendliness of Ukrainian products: The implementation of European production standards in the field of food safety and energy management will allow Ukrainian producers to comply with the highest requirements of the European market. This will facilitate access of European consumers to certified Ukrainian products, which will have traceability at all stages of production, processing, and distribution.

- Balkan experience: Ukraine can claim quotas similar to those of Balkan countries, such as Serbia, which received an export quota of 119 thousand tons with a total sugar production of approximately 550 thousand tons. This experience shows that countries can receive significant quotas even with a smaller production volume.





TOMATO PROCESSING

Information sheet

The large-scale invasion has had a devastating impact on Ukrainian producers of processed tomatoes, including a drop in exports of the relevant products to the EU. The partial liberalization of the EU market through the DCFTA agreement has provided Ukrainian producers of processed tomatoes with a duty-free tariff quota of 10,000 tons per year since 2014. Since then, supplies have significantly exceeded the quota, reaching 47.1 thousand tons in 2021. The duty on supplies above the quota was 14.4%. But the temporary occupation of most of the Kherson region, where a third of tomatoes in Ukraine are grown, has deprived processors of access to raw materials, and their supply has gone down sharply. In 2022, exports of processed tomatoes to the EU fell to 19.7 thousand tons, and in 2023 – to 9.4 thousand tons (Fig. 2.7).

It should be noted that already in the first quarter of 2024, positive trends were observed in the restoration of domestic exports of processed tomatoes to the EU, as their exports reached almost 9.3 thousand tons, which exceeded the corresponding deliveries for the same period of the previous year by 14.3 times.

After the russian invasion, other suppliers began to actively take the Ukraine's share. In particular, in 2023, the largest suppliers of processed tomatoes (HS 2002) to the EU from third countries were:

1. China – 188.4 thousand tons (45% of total imports);
2. Turkey – 49.4 thousand tons (11.7%);
3. USA – 49 thousand tons (11.6%);
4. Egypt – 33.5 thousand tons (8%); and
5. Chile – 27 thousand tons (6.4%).

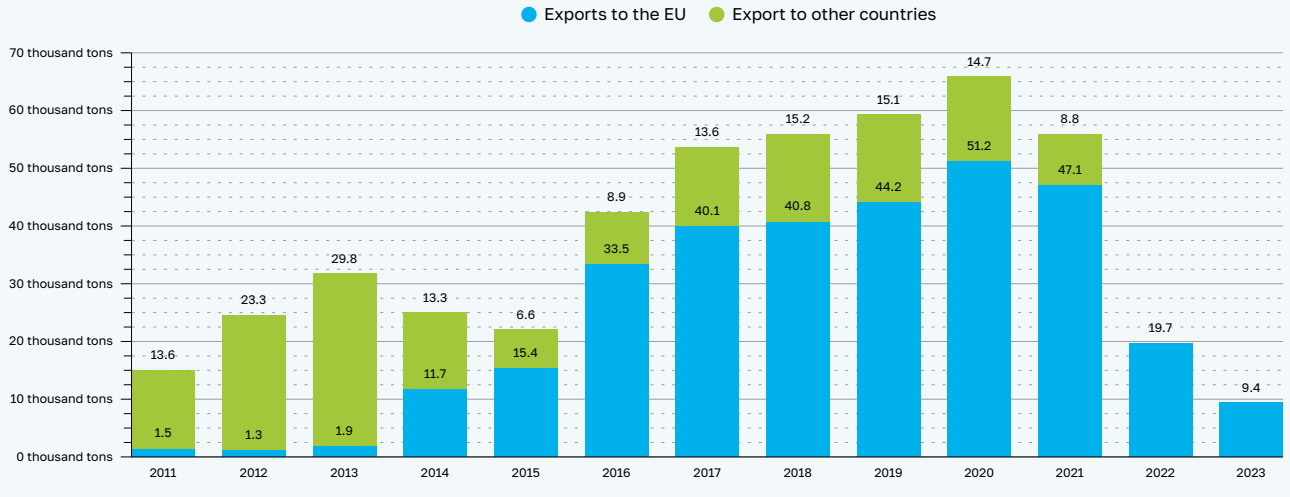


Fig. 2.7. Dynamics of exports of processed tomatoes (HS 2002) from Ukraine to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

Ukrainian tomato processing enterprises have begun their step-by-step restoration after the outbreak of the war, returning production and export volumes to pre-war levels. In particular, tomato paste producers are already noticing a gradual recovery in product supply volumes, which were significantly reduced due to military actions and the occupation of some territories. According to forecasts, a steady increase in tomato processing volumes and exports of finished products is expected by 2027, corresponding to previous levels, thanks to the modernization and expansion of production capacities.

Exports to the EU remain a top priority for tomato paste producers. However, logistical problems and risks related to the war still hinder the restoration of export volumes to full pre-war levels.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems for exporting Ukrainian tomato paste to the EU are:

- Logistics issues: the war created significant risks and challenges for transportation, leading to higher logistics costs and unreliable supplies of tomato paste;
- Competition with other countries: the main competitors in the tomato paste market are China, Turkey, the USA, and Egypt, which influence pricing and product quality; and
- Quotas and trade restrictions: the possibility of introducing quotas and duties on imports of Ukrainian tomato paste into the EU. At the same time, Ukrainian producers believe that the volume of tomato paste exports does not pose a threat to European producers. At that, a potential quota of 50 thousand tons is considered acceptable, but ineffective as a measure to protect the European market.

3. Ways to solve problems and the role (support) of the Government

The Ukrainian Government should take the following measures to support tomato paste producers:

- Reaching agreements on the duty-free trade: it is important to ensure free access of the Ukrainian tomato paste to EU markets without duties and quotas, which will reduce logistics costs considerably and enhance the competitiveness of Ukrainian products;
- Restoration of international certification agencies: this will help Ukrainian manufacturers more quickly achieve European standards of quality and conformity for products, which is mandatory for supply to European markets; and
- Coordinated work of the customs authorities of Ukraine and the EU: to facilitate and accelerate exports, it is necessary to ensure simplification of customs clearance procedures and establish close collaboration between Ukrainian and European customs authorities.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukraine ranks third in Europe and tenth in the world in terms of tomato paste production. The strategic benefits for the EU from cooperation with Ukraine in the tomato processing sector include:

- Supply of high-quality raw materials for the European food industry: Ukrainian tomato paste is an important raw material for European processors, who use it to produce higher-margin products;
- Reducing dependence on imports from third countries: cooperation with Ukraine will help reduce the EU's dependence on imports from China, Turkey, and Egypt, ensuring a stable and high-quality supply of products from a country that is geographically close to the EU; and
- Economic benefits for both sides: duty-free trade will allow European processors to obtain Ukrainian tomato paste at a lower price.





PRODUCTION OF FRUIT AND VEGETABLE JUICES

Information sheet

Since 2012, exports of apple and grape juices from Ukraine to the EU have shown significant growth. While in 2011 the volume of exports to the EU was only 7.5 thousand tons, in 2014 it reached 83.8 thousand tons, which was an increase of more than 10 times. In turn, the share of exports of Ukrainian juices to the EU countries in relation to exports to other countries has grown, which indicates a high demand for these domestic products (especially apple concentrate) from European consumers.

It is characteristic that the largest volumes of fruit juice exports from Ukraine to the EU were recorded in 2013–2015, which indicates that domestic juice producers had serious positions in the European market even before the entry into force of the Association Agreement.

However, the application of precautionary measures by the EU in the form of tariff quotas, which had been in force from 2016 to 2021, led to a slight drop in sales of domestic juices to the European market. In 2016, exports to the EU amounted to 46.0

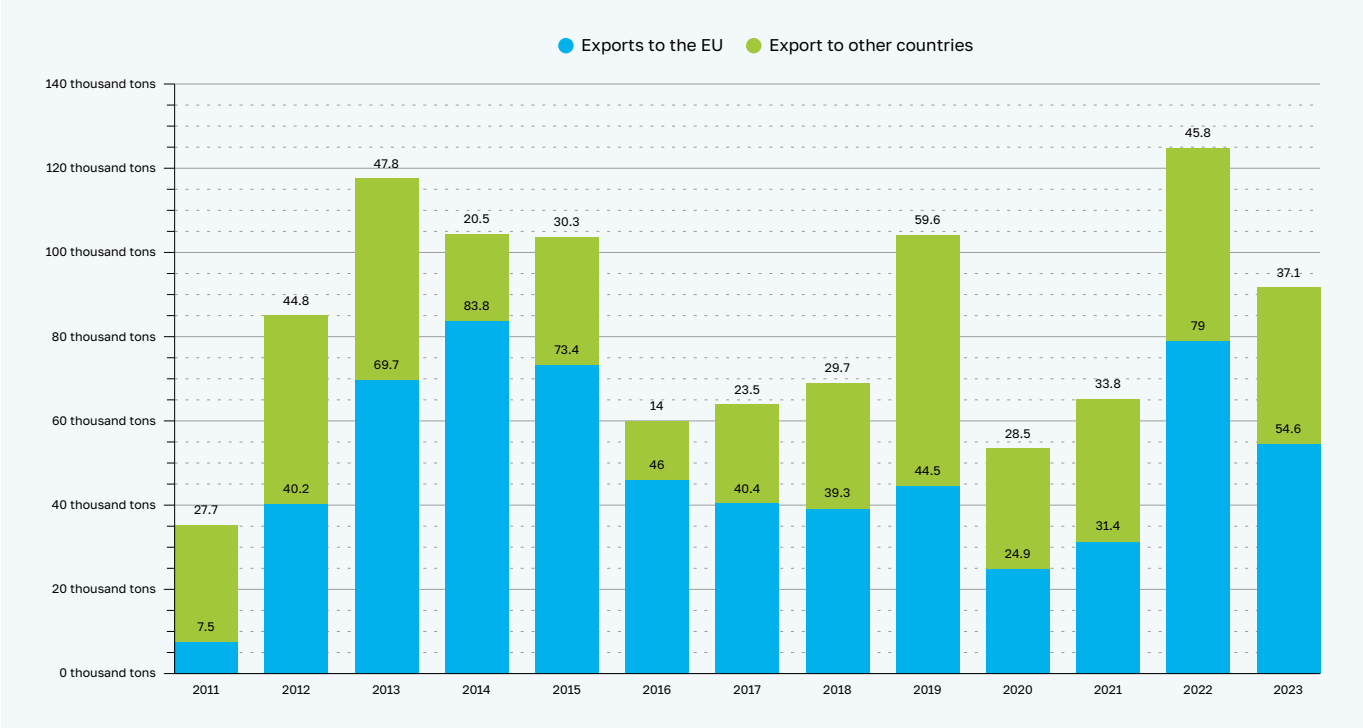


Fig. 2.8. Dynamics of exports of apple and grape juices (HS 2009 61; 2009 69; 2009 71; 2009 79) from Ukraine to the EU and other countries of the world

thousand tons, which is 37.3% less than in 2015, and in 2020 dropped to 24.9 thousand tons.

Starting in 2022, Ukrainian producers began to conquer the European market again, exporting 79.0 thousand tons of fruit juices to EU countries, which was apparently conditioned by the adoption by the European Parliament of a regulation on temporary trade liberalization measures.

According to the results of 2023, the share of imports of Ukrainian juices in the total imports of these products to the EU amounted to almost 47%, which brought Ukraine to first place among exporters of apple and grape juices to European countries (Fig. 2.8).

Other major suppliers of juices to the European market were:

1. **Moldova – 24.4 thousand tons (21% of total imports to the EU);**
2. **Turkey – 18.6 thousand tons (16%);**
3. **China – 5.1 thousand tons (4.4%);**
4. **Georgia – 3.6 thousand tons (3.1%); and**
5. **Great Britain – 3.2 thousand tons (2.8%).**

Position of domestic producers

Interjuice
TAS GROUP

1. State of the industry and prospects for exports to the European Union market

The juice industry in Ukraine has a promising future, but it mainly concerns apple juice concentrate. The production of ready-made juices is not economically feasible, since the processing of the concentrate can take place anywhere with the available appropriate infrastructure. The export of apple juice concentrate is a key direction for Ukrainian producers, since domestic consumption is limited, fluctuating within 15-20 thousand tons per year. The potential volume of apple concentrate production at existing facilities can reach up to 120 thousand tons per year.

In 2024, the priority export market for apple processing of apple concentrate is the European Union. This is conditioned, on the one hand, by high prices on the EU market due to the apple crop failure in Poland and other leading apple concentrate producers. On the other hand, the abolition of tariff quotas for the import of Ukrainian apples to the EU plays a key role in the possibility for Ukrainian producers to access the European market.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems for exports to the EU market are the possible return of tariff quotas after the end of the Autonomous Trade Preferences (ATP) validity. The return of the quota of 20 thousand tons will substantially limit access to the European market, which will actually lead to its closure for most companies engaged in processing apples in Ukraine.

3. Ways to solve problems and the role (support) of the Government

The Ukrainian Government must make efforts to preserve the free trade regime between Ukraine and the EU, which operates within the framework of the ATP.

4. Cooperation and strategic benefits for the EU. Negotiating positions

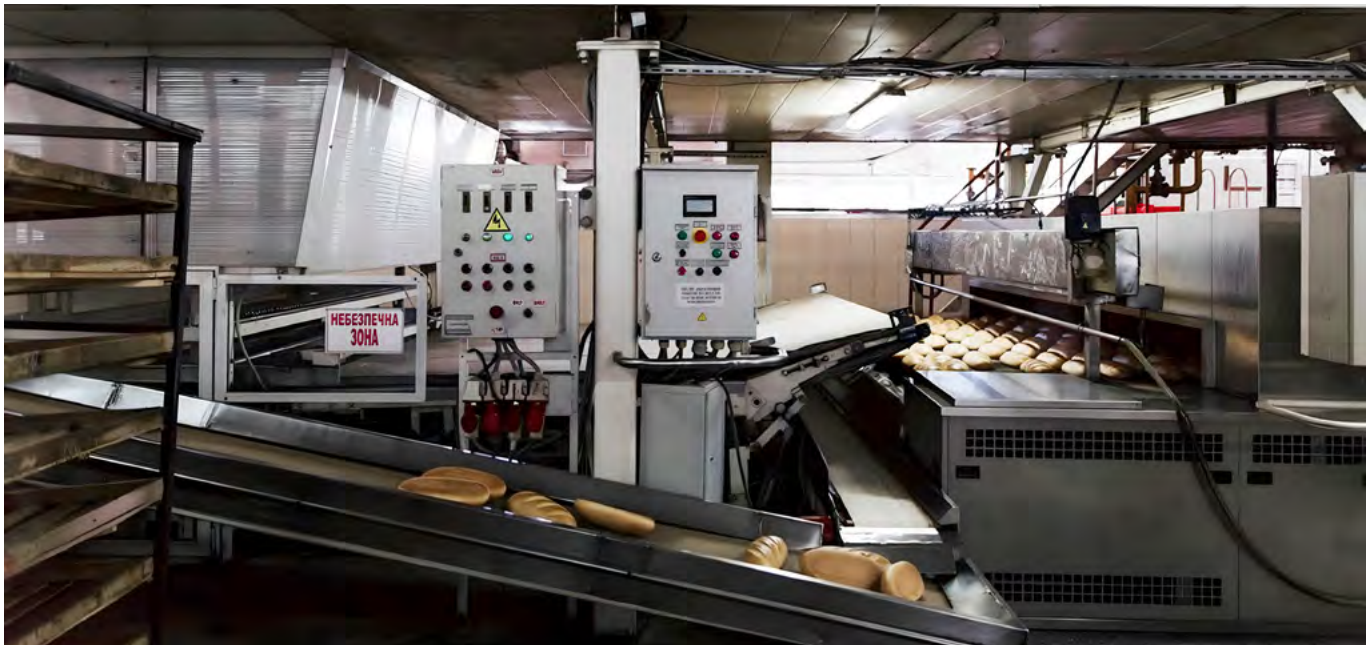
Purchasing Ukrainian apple juice has several strategic advantages for the EU.

Firstly, Ukrainian apple concentrate has quality and taste characteristics that distinguish it from similar products, for example, Chinese-made. This creates a separate niche for it in the European market, since it is difficult to replace or displace it with cheaper products from other countries. In addition, Ukrainian juice is more affordable in terms of prices, which increases its competitiveness in the EU market.

Secondly, the volume of Ukrainian juice exports does not pose a threat to domestic European producers. Even if Ukraine supplies the entire volume of juice produced to the European market, this will not cover the deficit of apple concentrate, which in the EU is estimated at 100-150 thousand tons per year. Thus, Ukrainian products will not negatively affect European producers, but will help reduce the deficit of these goods on the EU market.

Maintaining the free trade regime without tariff quotas for the period before Ukraine's accession to the EU will enable the stabilization of supplies of these Ukrainian products to the EU, supporting jobs in Ukrainian rural regions and contributing to the economic development of these territories.





FLOUR, BREAD, AND PASTA PRODUCTION

Information sheet

Between 2011 and 2017, the average annual growth in flour exports from Ukraine was very noticeable. During this period, Ukrainian producers increased the volume of flour supplies to foreign markets by 3.5 times, from 124 thousand tons (2011) to 443 thousand tons (2017).

In 2017, Ukraine exported a record amount of flour in the last 13 years, amounting to 443.3 thousand tons, which was achieved thanks to a record harvest of wheat and other grain crops. At that time, the main buyers of Ukrainian flour on foreign markets were China, Angola, Moldova, UAE, Palestine, and Israel.

The period from 2020 to 2021 was marked by the lowest volume of world flour trade in recent years, which negatively affected Ukraine's foreign trade in this product. For example, in 2020, the volume of exports from Ukraine dropped by 39% compared to the previous year, and in 2021 it went down by another 50% compared to 2020.

The reason for this decline was the Covid-19 pandemic and a sharp increase in world prices for raw materials. Ukrainian products have always been attractive due to their low price. The surge in world prices for wheat led to a corresponding trend in Ukraine. As a result, prices for processed products went up.

Until 2022, there was almost no export of domestically produced flour to EU member states, and its share in total Ukrainian exports from 2011 to 2021 was less than 1%.

Before the EU Council adopted a resolution to suspend import duties and quotas on Ukrainian exports (June 2022), tariff quotas for some types of flour were in force within the framework of the Association Agreement for the import of Ukrainian flour into the EU, namely: for soft wheat flour and mixed wheat and rye flour – in the amount of 1 million tons per year; for corn flour – 650 thousand; for barley flour – 350 thousand tons; and for other types – 1 million tons.

Starting in 2022, as a result of the russian naval blockade, the geographical structure of flour exports has seen a reorientation of domestic producers towards European markets instead of the Middle East and Africa ones. Thanks to the rapid reorientation, in 2022 Ukraine entered the top three flour exporters to the EU countries.

Among the EU countries that have become the largest markets for Ukrainian flour are Poland, Romania, Croatia, Hungary, and Slovakia. The Republic of Moldova, which has remained Ukraine's constant trading partner for this product for many years, also joined the leaders (Fig. 2.9).

In 2023, Ukraine became the second largest supplier of flour to the EU, exporting 74.4 thousand tons of wheat flour and 2.3 thousand tons of flour from other grain crops to the European market. The share of the Ukrainian flour in total EU imports was 21.1%.

At the same time, the largest supplier of flour to the EU countries according to the results of 2023 was the United Kingdom with a share of 55.2% in total imports (200.6 thousand tons). Also, among the major suppliers of flour to the EU, Moldova and Serbia can be distinguished, which each account for approximately 5% of total EU imports.

It is worth noting that European Union countries mainly import wheat flour, which accounts for almost 92% of total imports for all types of flour.

The volume of pasta exports is significantly lower than the volume of flour sales on foreign markets, which is conditioned by various factors, including the low quality of wheat used in production and the shortage of durum varieties of this grain. It is also important to note that Ukraine is characterized by a negative balance of

foreign trade in pasta products, when imports exceed exports. At the same time, Ukraine mainly exports instant products and pasta with fillings, while importing classic pasta products.

Before the launch of the full-scale invasion, Ukrainian exports of pasta products were characterized by growing dynamics. In 2021, Ukraine exported 37.5 thousand tons of pasta, which is 77% more than in 2020 and 127.4% more than in 2011.

Due to the war, by the end of 2022, Ukraine more than halved its pasta exports (to 17.8 thousand tons), losing its previous positions and taking 47th place in the world ranking.

According to the results of 2023, Ukraine carried out export deliveries of 23.9 thousand tons of pasta, exceeding the results of 2022 by 34% (Fig. 2.10).

In 2023, the European Union became the major foreign market for pasta sales. Ukrainian pasta products were in greatest demand in Germany (4.6 thousand tons), Romania (3.1 thousand tons), Moldova (3.0 thousand tons), Poland (2.0 thousand tons), Latvia (1.5 thousand tons), Great Britain (1.4 thousand tons),

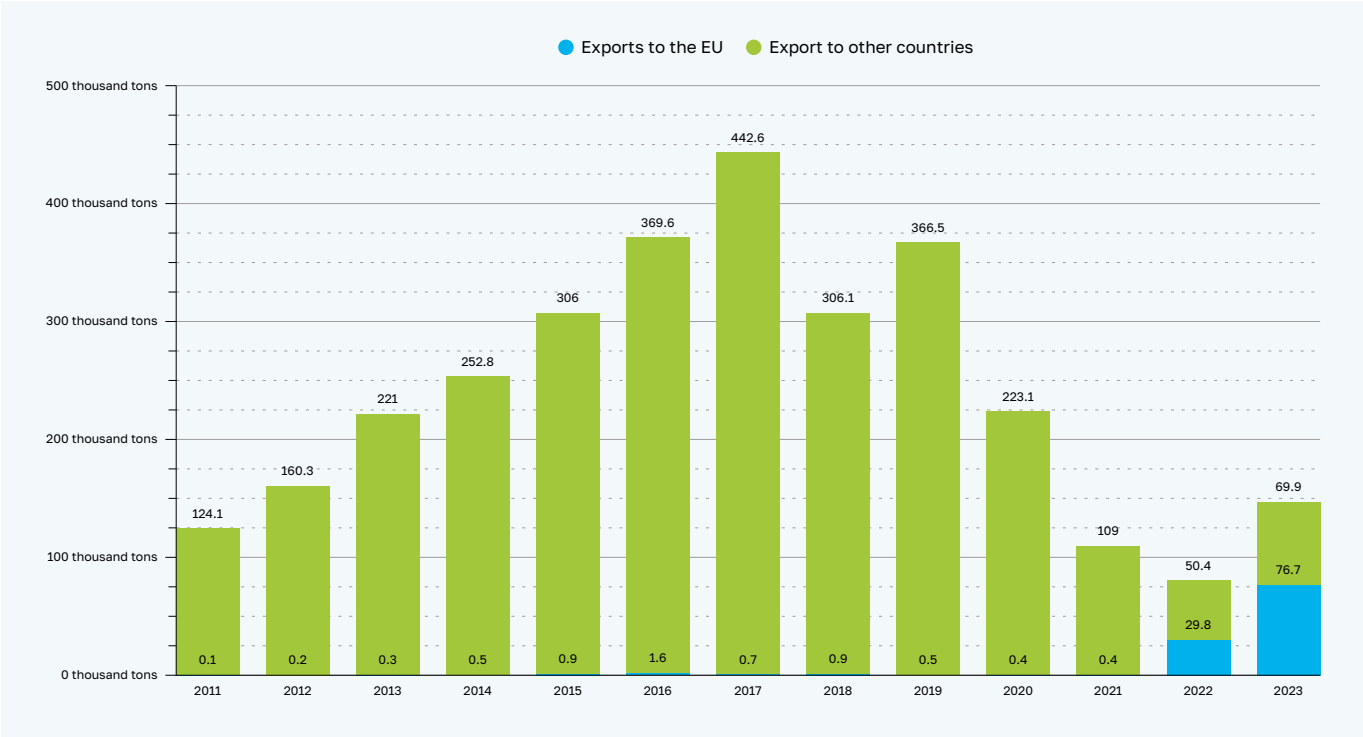


Fig. 2.9. Dynamics of exports of flour (HS 1101, 1102) from Ukraine to the EU and other countries of the world

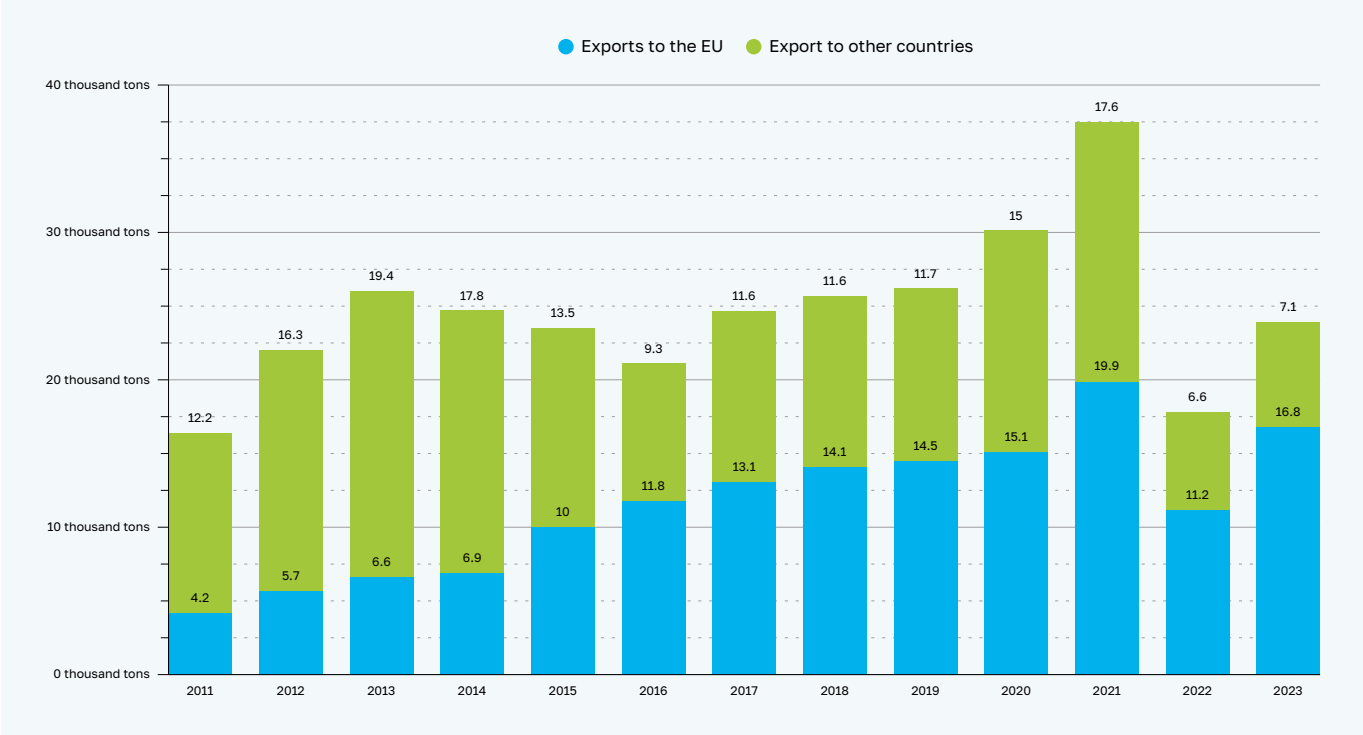


Fig. 2.10. Dynamics of exports of pasta products (HS 1902) from Ukraine to the EU and other countries of the world

Lithuania (1.4 thousand tons), and Bulgaria (1.1 thousand tons). Considerable deliveries were also made to Israel, the USA, Palestine, and Iraq.

The commodity structure of exports of dough products in 2023 consisted of products without filling – 2.2 thousand tons, pasta products with various fillings – 4.1 thousand tons, as well as other products, in particular, instant noodles – 17.6 thousand tons.

In 2023, the share of imports of Ukrainian pasta products in total EU imports was 4.4%. In turn, the largest importers of this product to the European Union countries were:

1. **China with a share of 20.4%, which exported 77.1 thousand tons in 2023;**
2. **Thailand – 13.8% (52.3 thousand tons);**
3. **Vietnam – 10.4% (39.1 thousand tons);**
4. **Republic of Korea – 9.5% (35.9 thousand tons); and**
5. **Switzerland and Turkey – 7% each (29 thousand tons and 28 thousand tons, respectively).**

According to experts, the prospects for the development of the flour and flour products market largely depend on the ability of companies to adapt to changing conditions. Manufacturers of finished products, such as pasta, bread, and cookies, have better prospects than producers of raw materials, since the global market for finished products is extremely powerful.

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The Ukrainian flour and pasta industry has faced numerous challenges due to the war, which has led to energy problems, depopulation, and reduced domestic consumption. Flour production is currently operating at 50-55% of capacity, and national consumption continues to decline.

The prospects for exports to the European Union remain positive. There is a growth in the share of exports to the EU countries, Moldova, and other European markets, which is conditioned by the decrease in the attractiveness of the Middle East and North Africa markets due to the high cost of logistics and competition from russia and Turkey. In addition, adverse weather conditions in the EU have led to a reduction in wheat harvests in France and Germany, which creates opportunities for boosting the supplies of Ukrainian flour to these markets.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main challenges for increasing exports to the EU market are:

- High logistics costs: Logistics costs have grown significantly due to inflation, increased transport costs, and lack of adequate infrastructure. This makes it difficult to export products to traditional markets, countries in Asia and Africa, and leaves the EU as the main destination for ramping up the supplies.
- Competition from European suppliers: Manufacturers from countries such as Italy and France, as well as Eastern Europe have significant competitive advantages due to traditional business relationships and stable supplies.
- Import ban by some EU countries: Poland, Slovakia, Hungary, and Bulgaria.
- Flour and raw material export quotas: Until 2022, flour was included in the same quota as wheat for exports to the EU. This situation was also observed for cereals, where processed products were included in the quota together with raw materials, which limited the export of products with a higher added value.
- Uncontrolled export of high-quality wheat. This significantly reduces the ability of domestic enterprises to provide themselves with raw materials for processing and producing high-quality pasta goods in order to compete on the EU market.

3. Ways to solve problems and the role (support) of the Government

To overcome the problems and expand the presence of Ukrainian flour and pasta producers on the EU market, the following measures are necessary:

- Harmonization of standards: The Ukrainian Government should continue to adapt Ukrainian standards to European ones, especially in the areas of phytosanitary control and customs procedures. This will reduce non-tariff barriers and simplify exports.
- Improving logistics infrastructure: The Government needs to invest in building European-standard railways and improving other transportation routes to cut down the logistics costs.
- Participation in exhibitions and trade missions: The Ukrainian Government should finance the participation of manufacturers

in European exhibitions and organize trade missions to raise awareness on the Ukrainian products in EU markets.

- Grain export regulation: Measures should be taken to control the export of high-quality wheat to provide Ukrainian producers with raw materials for the production of flour and pasta products.

- Separate quotas for processed products: The Ukrainian Government should actively lobby the EU to introduce separate quotas for processed products, such as flour and cereals, that would not be linked to the general quotas for raw materials.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukrainian producers can offer the EU several strategic advantages that will be mutually beneficial:

- Strengthening EU food security: The Ukrainian agricultural sector can compensate for the decline in wheat production in the EU by ensuring stable supplies of products with lower self-cost.

- Organic products and participation in tenders: Ukrainian producers can participate in tenders of large EU retail chains by supplying organic products.

- Joint exports to third countries: Cooperation between Ukrainian and European companies for joint export of products to countries in Asia, Africa, and other regions will strengthen positions in the international market.





CONFECTIONERY PRODUCTION

Information sheet

Today's confectionery market of Ukraine is one of the largest sectors of the food industry, characterized by stability and rapid growth, and also shows a low level of vulnerability to negative downturns in the economy of the country and the world as a whole. Large confectionery companies work mainly for foreign markets and are constantly building up their exports, while small and medium-sized enterprises work for the domestic market of Ukraine.

Until 2014, the main consumers of Ukrainian confectionery products on foreign markets were the russian federation and other CIS countries (Kazakhstan, belarus, and Azerbaijan). The share of exports to EU countries was insignificant, fluctuating within 3% during 2011-2013.

In 2014, russia banned the import of all confectionery products of Ukrainian origin, and Ukraine lost its main market for confectionery goods. According to the results of 2014, the total volume of exports of these products dropped by 32.5% compared to 2013 and by 40.2% compared to 2011.

Ukrainian producers were forced to look for new markets and began to increase their exports to the European market. Thus, in 2015, the share of exports to the EU rose to 14%, which is five times more than in 2013, when this figure was only 2.7%. In 2023, sales to EU countries reached their peak with a share of 47.7% in total confectionery exports.

At the same time, not only the geography of exports has changed, but also the product segment of confectionery being exported by Ukraine. Until 2015, the main items of Ukrainian exports in the confectionery group were chocolate and other sweets containing cocoa (HS 1806), which accounted for almost 50% of all exports of confectionery products and were in greatest demand among importers from the CIS countries.

In turn, importers from EU countries liked not only our chocolate candies, but also sweets without cocoa content, such as toffee candies, caramel, white chocolate, etc. (HS 1704). In 2023, Ukraine exported 24.4 thousand tons of sweets of this group (HS 1704) to European countries, which is almost 5 times more than in 2014 (with 5.1 thousand tons). It is also worth noting the boost in export supplies of wafer products, the share of which in total exports of Ukrainian confectionery products climbed from 5.5% in 2011 to 15.2% in 2023, while in exports of confectionery products to EU countries – from 4.9 to 20% in the same period (Fig. 2.11).

During 2015-2023, exports of confectionery products from Ukraine to the EU tended to grow, reaching its peak in 2023, when almost 96.7 thousand tons of domestically produced confectionery were supplied to the European market, which is 3.4 times more than in 2015.

The commodity structure of confectionery exports from Ukraine to the EU in 2023 was as follows: 1) 37.6% (36.4 thousand tons) – confectionery products without cocoa content; 2) 25.3% (24.4 thousand tons) – chocolate and products containing cocoa; 3) 19.9% (19.3 thousand tons) – wafer products; and 4) 17.2% (16.6 thousand tons) – cookies.

The main consumers of these Ukrainian products among EU member states are Poland and Romania. The main importers of confectionery products from Ukraine among third countries are Kazakhstan, Turkey, and Moldova.

According to the results of 2023, Ukraine ranked second among the countries supplying confectionery products to the EU market with a share of 14.8% in the total import of these products by European countries. The first place was taken by the United Kingdom with a share of 31.4% (205.2 thousand tons); while Turkey and Switzerland hold the third place with shares of

approximately 12% (79 thousand tons and 78 thousand tons, respectively).

Today, one of the key drivers for the development and growth of confectionery sales is the introduction of innovative products with new flavors, aromas, textures, shapes, and packaging.

In addition, an important global trend affecting the entire confectionery industry is the trend towards a healthy lifestyle (reduction in sugar content, increase in natural ingredients, etc.), which is strongest in developed countries with high income levels. This trend restrains the growth of sugar confectionery products in developed countries and shifts the focus to developing countries, primarily from the Asia-Pacific region and the Middle East.

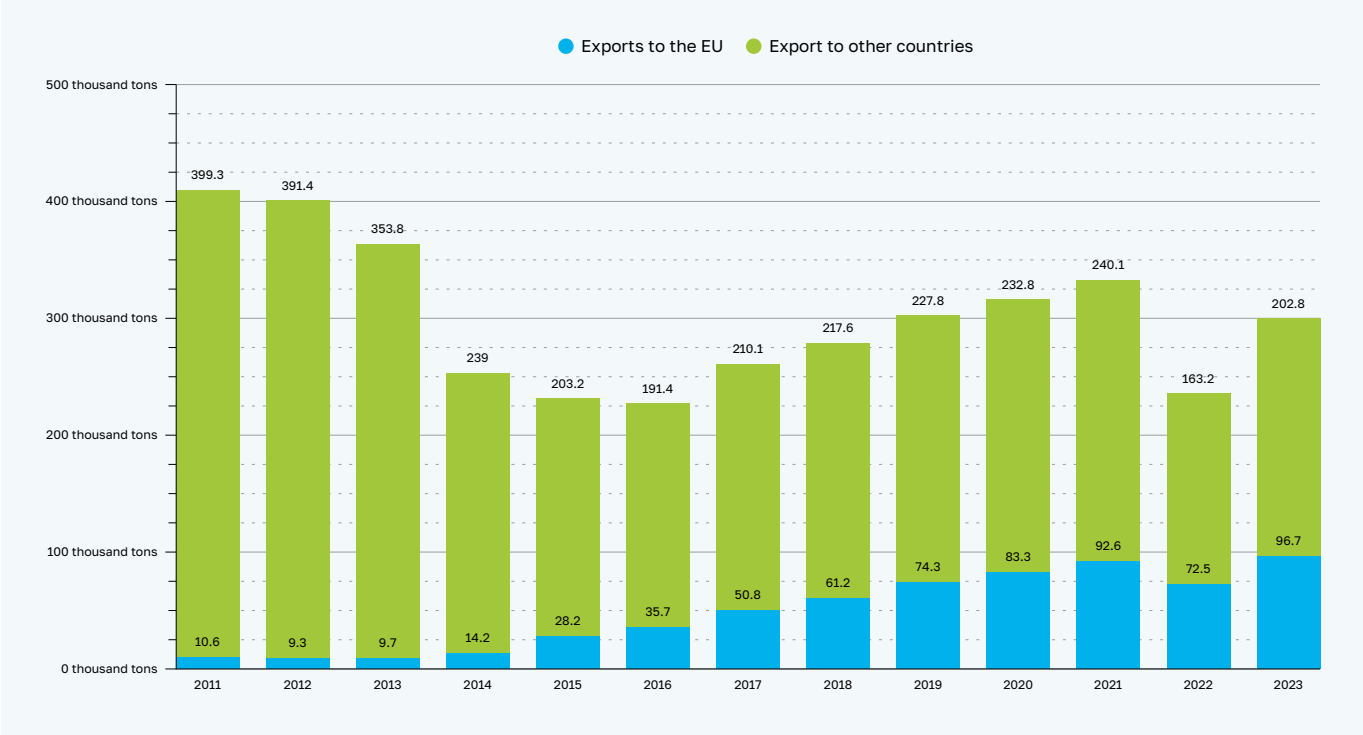


Fig. 2.11. Dynamics of exports of confectionery products (HS 1704, 1806, 19 0531, 19 0532) from Ukraine to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The Ukrainian confectionery industry has shown steady growth despite the challenges caused by the war. Manufacturers note that the domestic market remains important, but the main potential for development lies in exports, particularly to the European Union markets.

Ukrainian entrepreneurs in this industry have actively begun to integrate European quality and safety standards, which allows them to be competitive in the EU market.

Export prospects are also related to the fact that Ukrainian products meet the requirements for naturalness and ecological purity, which is becoming an important criterion for European consumers. Given these advantages, Ukrainian manufacturers of bakery and confectionery products have the opportunity to strengthen their positions in the EU market.

2. Main problems and barriers to entering (or expanding presence in) the European market

Despite a substantial potential, there are certain problems and barriers to expanding exports of Ukrainian confectionery products to EU markets:

- Competition with European manufacturers: European manufacturers have advantages in logistics and reduced transportation costs, which makes their products more competitive;
- Logistics costs: as a result of the war and complicated transport logistics, the cost of delivering products has increased significantly. This leads to an increase in the price of Ukrainian products on the EU market, which reduces their attractiveness compared to competitors; and
- Non-tariff barriers: certification procedures and harmonization of standards are a significant barrier for Ukrainian manufacturers. Despite European standards being

implemented in Ukraine, the process of product certification can be sophisticated and costly.

3. Ways to solve problems and the role (support) of the Government

To overcome existing barriers and promote the expansion of exports of Ukrainian confectionery products, the Government should take a number of measures:

- Reducing the tax burden. The Government should focus on reducing the tax burden on raw materials and finished products, as well as on introducing tax incentives for export enterprises. This will help reduce the self-cost of products and enhance their competitiveness in the international market;
- Improving logistics infrastructure. Creating state-of-the-art infrastructure, including the construction of railroads according to EU standards, will help facilitate the transportation of products and cut down the logistics costs;
- Prioritizing exports of highly processed products. The Government should focus its efforts on supporting exports of products with high added value. Currently, most exports are raw materials, which leads to distortions in the domestic market and increases in prices;
- Financial support in the form of grants. Grant programs can help in modernizing production facilities, developing new technologies, improving product quality, and expanding its range; and
- Holding international exhibitions and events. The state should actively support the participation of Ukrainian manufacturers in international exhibitions and trade missions to promote products and find new partners on the EU market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukrainian confectionery manufacturers see several important aspects for the further development of cooperation with the EU:

- Expanding the range on the EU market: Ukrainian products that comply with the requirements of naturalness and ecological purity can become an important part of the European market, offering new flavors and product options that meet modern trends in healthy eating; and
- Strategic investments in Ukrainian production facilities: European companies can obtain mutually beneficial cooperation conditions through the establishment of joint ventures. This will contribute to the modernization of the Ukrainian food industry and enhancement of its energy efficiency and environmental friendliness.





ALCOHOL PRODUCTION

Information sheet

Until 2019, inclusive, exports of ethyl alcohol from Ukraine remained insignificant and episodic. The revival in the industry began as a result of the abolition of the state monopoly on alcohol production, which came into force on July 1, 2020. EU countries immediately became a key direction for foreign supplies of Ukrainian alcohol. During 2020–2021, exports under the UKTZED code 2207 from Ukraine to the EU amounted to 24.8–27.5 thousand tons. Already in 2022, despite the destructive impact of the large-scale invasion, the alcohol industry ramped up its exports to EU countries to 41.3 thousand tons, and by the end of 2023 they reached 72.9 thousand tons. According to the State Statistics Service of Ukraine, in January–May 2024, exports of alcohol from Ukraine to the EU amounted to 33.3 thousand tons, which is 21.6% more than in the same period of the previous year (27.4 thousand tons). In general, EU countries account for about 90–95% of national exports of ethyl alcohol (Fig. 2.12).

Under the terms of the Deep and Comprehensive Free Trade Area Agreement between Ukraine and the EU, which entered into force within the framework of the Association Agreement, the European Union provided Ukrainian producers of ethyl alcohol with a duty-free tariff quota, which in the first year of the transition period (2016) amounted to 27 thousand tons and subsequently grew by

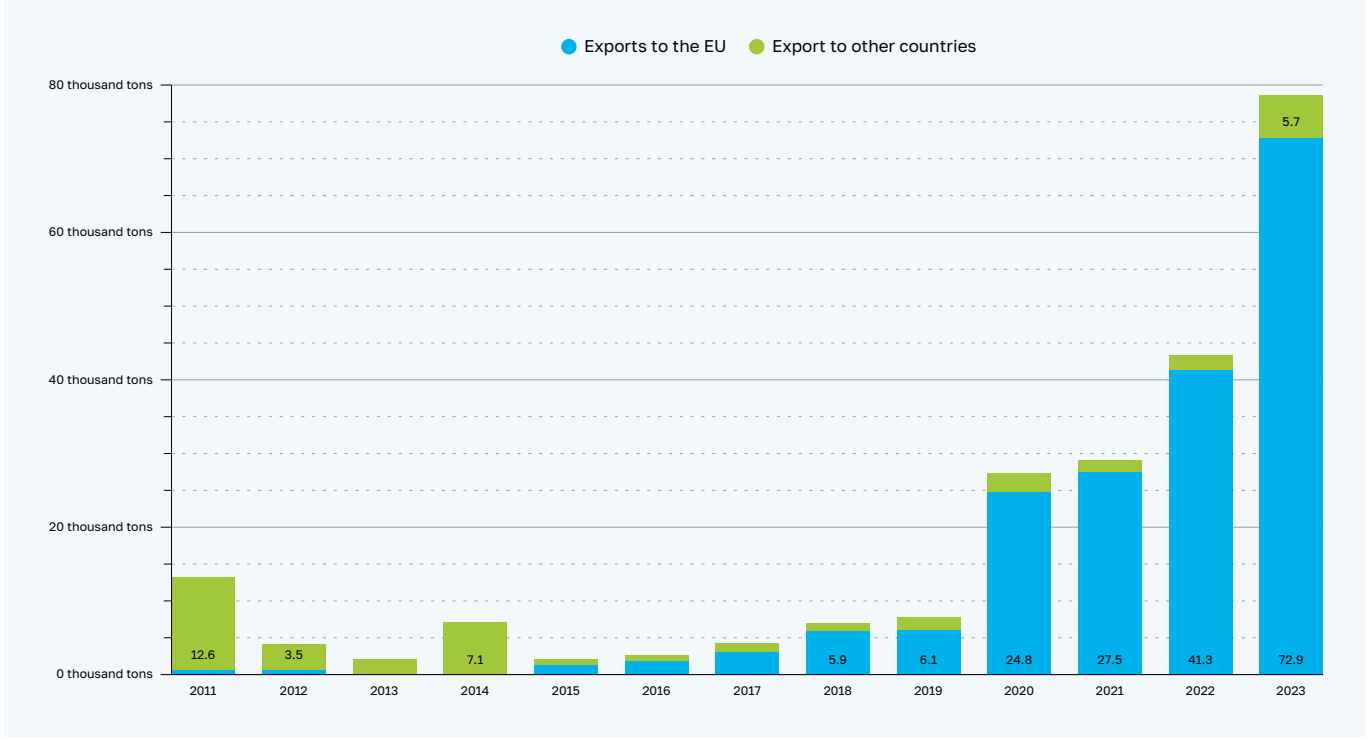


Fig. 2.12. Dynamics of exports of ethyl alcohol (HS 2207) from Ukraine to the EU and other countries of the world

14.6 thousand tons per year to an upper limit of 100 thousand tons, starting in 2021. Thus, Ukrainian exports of ethyl alcohol to the EU have not yet reached the volumes of duty-free quotas; however, taking into account the dynamic development of the industry, this may happen in the near future.

It should be indicated that on 04.06.2022, the EU unilaterally abolished the remaining restrictions on trade with Ukraine, including the tariff quota for ethyl alcohol. The validity of this measure has now been extended. However, the rapid growth in deliveries of a number of other products from Ukraine (in particular, poultry meat, eggs, sugar, oats, corn, cereals, and honey) to the European market has already led to the introduction of new precautionary measures by the EU, which, in fact, returned quantitative restrictions on Ukrainian imports. Therefore, if supplies of Ukrainian ethanol to the European market continue to rise, this industry may also face similar restrictions. Moreover, the share of imports in the structure of European ethyl alcohol consumption tends to grow (Table 2.1).

Thus, during 2017–2022, the production of ethyl alcohol in the EU countries grew by only 7.4%, while consumption increased by 18.3%. Since 2018, consumption has consistently exceeded production, as a result of which imports rose by 2.3 times, while exports fell by 43.6%. It is characteristic that about two-thirds of ethyl alcohol in the EU is consumed as biofuel, another 16.2% – in the food industry, and the remaining 17.4% – in other sectors of industrial production.

The share of imports in the structure of ethyl alcohol consumption in the EU went up from 13.6% to 26.5% between 2017 and 2022. The largest suppliers of this ethanol (HS 2207) to the EU from among the countries not included in the union in 2023 were:

1. **Pakistan – 323.6 thousand tons;**
2. **USA – 306.5 thousand tons;**
3. **Brazil – 297.2 thousand tons;**
4. **Britain – 210.1 thousand tons;**
5. **Peru – 109.8 thousand tons;**
6. **Canada – 82.4 thousand tons;**
7. **Ukraine – 72.9 thousand tons;**
8. **Guatemala – 61.3 thousand tons;**
9. **Paraguay – 56.9 thousand tons; and**
10. **South Africa – 36.8 thousand tons.**

Table 2.1. Balance of ethyl alcohol production and consumption in the EU, million liters of pure alcohol

Indicators	2017	2018	2019	2020	2021	2022*	2022/2017, %
Production	5849,9	5739,3	5973,8	5952,7	5892,2	6281,0	7,4
Imports	769,7	621,0	964,8	1319,3	959,8	1774,1	130,5
Export	740,0	748,8	729,6	601,1	553,3	417,7	-43,6
Utilization, including:	5666,8	6105,4	6265,8	6498,8	6413,4	6701,2	18,3
in the food industry	867,1	1015,7	965,8	961,9	1042,8	1082,8	24,9
in industry	777,4	857,4	758,6	1278,4	1121,6	1163,4	49,7
as fuel	4022,3	4232,3	4541,4	4258,6	4249,0	4449,0	10,6

Notes:

1. In 2022, EU supply and demand excludes Croatia, Estonia, and Malta. For Belgium and Spain, average figures for 2019-2020-2021 were used.
2. Import and export only covers products under codes CN 2207 10, CN 2207 20, CN 2208 90 91, and CN 2208 90 99 (application date 11.06.2023).

Source: Balance sheets by sector: Ethyl Alcohol. https://agriculture.ec.europa.eu/document/ download/c58a711d-16b1-4c03-bcee-8d2785dfb3c4_en?filename=ethyl-alcohol-supply_en_0.pdf

Position of domestic producers



1. State of the industry and prospects for exports to the European Union market

Ethyl alcohol production in Ukraine is showing steady growth. In 2023, alcohol exports reached 72 thousand tons with a capacity of about 240 thousand tons per year. Despite significant production capacity, the quota for ethanol exports to the EU remains unfilled.

2. Main problems and barriers to entering (or expanding presence in) the European market

Ukrainian producers of ethyl alcohol face a number of barriers to

entering the EU market:

- Customs barriers: the European quota for ethanol imports limits the import of alcohol, with customs tariffs applied to the product – 192 euros per m³ for undenatured alcohol and 102 euros for the denatured one;
- Technical barriers: additional environmental certification and technical regulation mechanisms in the EU may block Ukrainian ethanol exports. Although these actions are often unpublicized, they already create obstacles for Ukrainian exporters;
- Political barriers: there is a risk of repeated blocking of ethanol exports at the border, similar to cases with other Ukrainian agricultural products; and
- Logistical difficulties: lack of necessary infrastructure for ethanol exports by rail and high cost of road transportation.

3. Ways to solve problems and the role (support) of the Government

To overcome these problems and expand the presence of Ukrainian ethanol on the EU market, the following measures are necessary:

- Canceling ethanol export quotas: The Ukrainian government should actively lobby for the elimination of ethanol export quotas to the EU. Quotas that have never been filled limit Ukrainian ethanol exports to the European market, creating artificial barriers to competition; and
- Development of railroad infrastructure: in particular, the creation of transshipments from broad gauge to narrow gauge for rail transport, as well as marine transshipment centers for ethanol

4. Cooperation and strategic benefits for the EU. Negotiating positions

Lowering energy costs in the EU: Imports of Ukrainian bioethanol will help reduce energy costs in the EU, as bioethanol is an important energy product. Greater competition in the ethanol market will lead to lower prices for the final product in the EU, which is beneficial for European consumers.

Logistical advantages: importing ethanol from Ukraine can help optimize transport flows. Empty fuel trucks returning from the EU to Ukraine can be filled with bioethanol, which will cut down transport costs and enhance the logistics efficiency.

Trade parity: Ukraine has lifted all restrictions on alcohol imports from the EU, although the Association Agreement provided for the preservation of certain restrictions. This gives grounds to demand similar treatment from the EU, i.e., the abolition of quotas for ethanol exports from Ukraine to the EU. In the 8 years of the Euroassociation, the quota for alcohol exports to the EU has never been used completely.





PRODUCTION OF ALCOHOLIC BEVERAGES

Information sheet

Until 2014, the russian federation remained the main foreign market for Ukrainian vodka. During 2011-2013, more than 60% of Ukrainian exports were sent exactly to russia, where on average more than 50 thousand tons of domestic vodka were sold annually.

In 2014, russia banned the import of Ukrainian alcoholic beverages, including strong alcohol. As a result, the total volume of domestic vodka exports dropped by 62% in 2015 compared to 2013 (from 84.6 thousand tons to 32.1 thousand tons, respectively), and the share of exports to the russian federation fell to 0%.

Ukrainian producers were forced to diversify their alcoholic beverages' sales markets by exporting to Kazakhstan, Armenia, the USA, and EU countries.

During the period from 2014 to 2018, supplies of domestic vodka to the European market were stable and fluctuated within 5.5–5.7 thousand tons per year. Starting in 2019, Ukraine built up its sales of strong alcohol to the European market, and also entered the

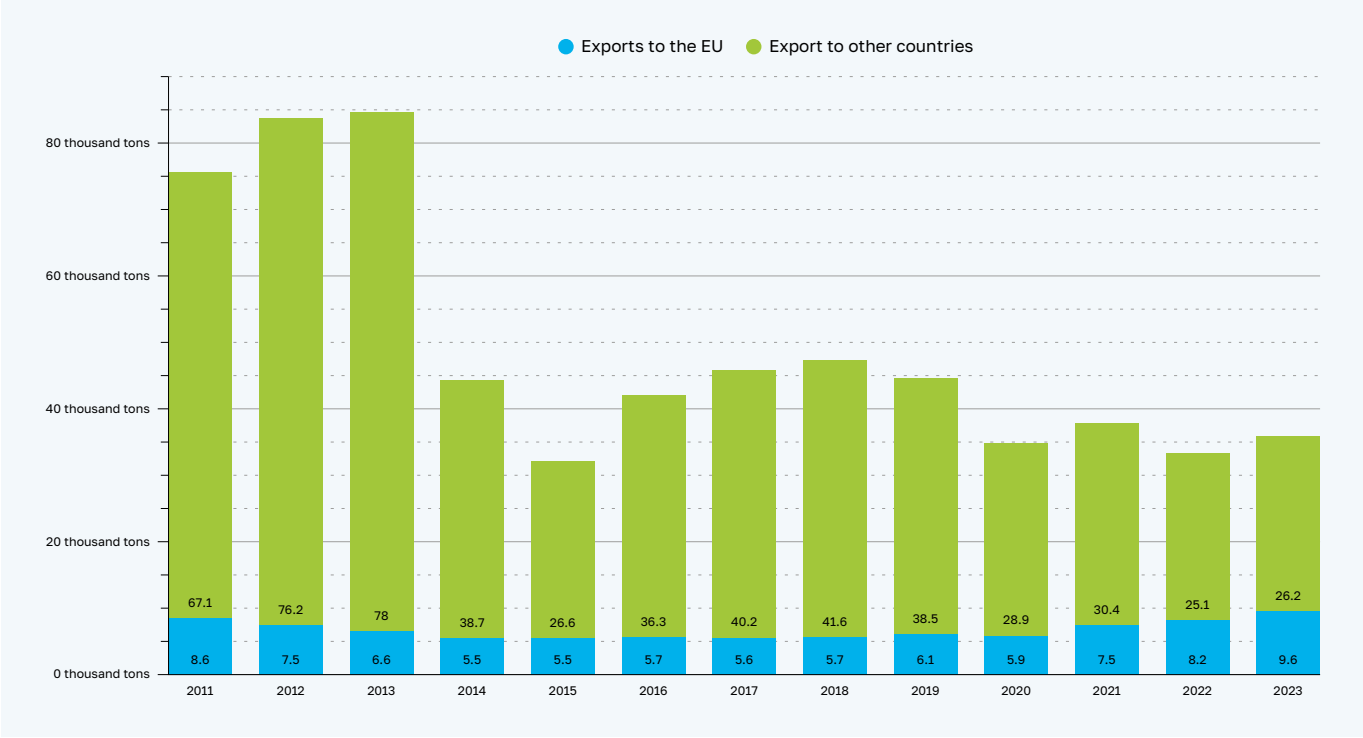


Fig. 2.13. Dynamics of exports of vodka (HS 2208 60) from Ukraine to the EU and other countries of the world

top 15 largest exporters of vodka in the world, taking 12th place among the market leaders.

In 2021, exports of Ukrainian vodka to the EU increased by 36.4% (to 7.5 thousand tons) compared to 2014. However, russia remained one of the main suppliers of this product to European countries, whose import share in 2021 amounted to more than 44% (21.7 thousand tons) of the total volume of EU vodka imports (Fig. 2.13).

The geography of European vodka imports has changed dramatically after the European Union imposed trade sanctions on russia in response to its full-scale invasion of Ukraine in 2022. The EU ban on imports of alcoholic beverages originating in the russian federation led to a drop in the share of russian vodka imports in total imports from 44.2% in 2021 to 0.3% in 2023. At the same time, Ukraine ranked second in terms of supplies to the European market among third countries, but the volumes of Ukrainian exports were 2 times lower compared to russian exports in previous years.

According to the results of 2023, the main suppliers of vodka (HS 2208 60) to the EU were:

1. **USA – 26.4 thousand tons (52.3% of total imports);**
2. **Ukraine – 9.6 thousand tons (19%);**
3. **belarus – 6.3 thousand tons (12.5%);**
4. **Great Britain – 3.1 thousand tons (6.1%); and**
5. **Norway – 1.6 thousand tons (3.2%).**

Position of domestic producers

SINCE NEMIROFF 1872

1. State of the industry and prospects for exports to the European Union market

The Ukrainian vodka market has shrunk significantly due to the war and the country's population decline. At the same time, the domestic market is being negatively affected by the increase in excise taxes on alcoholic beverages, which reduces the purchasing power of the population. This may lead to the exit of some producers from the market due to reduced investment opportunities.

Exports of vodka to neighboring countries such as Poland, the Baltic States, Georgia, and Kazakhstan are promising, but competition with local brands remains a significant barrier, as local consumers will in many cases prefer locally produced vodka. To compete successfully, it is necessary to invest significant funds in marketing and brand development, since vodka is not a commodity product, but requires recognition among consumers.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main challenges and barriers to expanding the presence of Ukrainian vodka on the EU market include:

- High competition: the EU vodka market is oversaturated with both local and international brands. Ukrainian producers find it difficult to compete due to a lack of consumer trust in imported vodkas, as well as insufficient marketing budgets to promote brands in new markets;
- Lack of investment in brand promotion: vodka is a product that requires significant investment in marketing to ensure brand recognition. At the initial stage of entering new markets, marketing costs can amount to 20-30% of the company's total budget, which is a significant barrier for many Ukrainian manufacturers; and
- Lack of Government support: Ukrainian vodka producers do not receive sufficient support from the state, unlike alcohol producers from other countries, which puts them at an unequal position in the global market.

3. Ways to solve problems and the role (support) of the Government

To increase the competitiveness of Ukrainian vodka producers and expand their presence in EU markets, the following measures are necessary:

- State support for the vodka industry: the Government should consider vodka as a national product and provide support to producers, similar to what the USA does for the tobacco industry or France does for wine and cognac producers; and
- Lifting the ban on marketing expenses abroad: It is necessary to lift the prohibition on marketing expenses of Ukrainian alcohol producers abroad and simplify the financial monitoring of compensation for such expenses. This will allow Ukrainian producers to more effectively promote their products in Western markets.

4. Cooperation and strategic benefits for the EU. Negotiating positions

The EU market is open to Ukrainian vodka producers, without quotas or other restrictions. Regulation at the EU level is clear and transparent, so any negotiations on facilitating market access are not relevant.

The high level of competition in the EU market contributes to the development of product quality, so Ukrainian manufacturers must focus on competition and the right marketing strategies to achieve success.



WINE PRODUCTION

Information sheet

The loss of the russian sales market, the Covid-19 pandemic, and the consequences of the large-scale war have had a particularly detrimental effect on the production and export of wine in Ukraine. In 2022, a number of wine-making facilities, in particular in the Mykolaiv and Kherson regions, found themselves under occupation or in close proximity to the front line, suffered severe damage, and were looted. The shelling and missile strikes also destroyed a number of warehouses located deep inside the country, far from the combat contact line. The country's operating wine-making facilities are currently preserved in Transcarpathia and the Odessa region.

Exports of wine from Ukraine to the EU countries first intensified in 2020, when they reached 6.7 million liters. Record figures for exports of Ukrainian wine to the EU were achieved in 2023 at 7.77 million liters, of which 7.36 million liters (94.7%) went to Romania. In 2023, the EU countries accounted for 72.9% of total wine exports from Ukraine. For comparison, in 2017 they did not exceed 2.0%. Thus, the reorientation to the European market made it possible to at least partially compensate for the industry's losses from the shrinking of the domestic market and restrictions on access to traditional international sales markets.

Imports of wines to the EU from third countries in 2023 reached 1.68 billion USD. The top ten countries – suppliers of this product were South Africa (132.6 million liters), Chile (127.7 million), Australia (100.2 million), the USA (60.6 million), Moldova (31.7 million), North Macedonia (31.2 million), New Zealand (27.6 million), Argentina (25.9 million), Britain (12.3 million), and Georgia (9.7 million). Ukraine with its export volumes to the EU was in 11th place.

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The wine industry in Ukraine has the potential to develop against the backdrop of global climate change, which is contributing to the expansion of viticulture into the northern regions of the country. The number of small wineries focused on the production of high-quality and original wines is increasing. It is expected that the structure of wine consumption in Ukraine will gradually change in favor of premium natural wines, despite the reduction of the overall market due to population decline and problems with the import of inexpensive wines under the own brands of retail chains.

Ukrainian wines demonstrate high results at European competitions, which indicates the prospects for entering the European market. However, success in competition does not always translate into a successful business due to the difficulties of organizing sales in the EU. Arrangement of stable supply channels in the EU is a difficult task, so wine exports from Ukraine are more of an image-related nature than a real source of income.

2. Main problems and barriers to entering (or expanding presence in) the European market

Ukrainian winemakers face several significant problems when entering the EU market:

- High cost of certification: To export wine to EU countries, it is necessary to obtain a Form VI-1 certificate for each wine title, which adds significant costs to small shipments. For example, certification for one pallet can cost up to 750 euros, making Ukrainian products uncompetitive compared to local European wines.

- Competition with European producers: EU producers receive significant support from their governments, including financial assistance for grape growing and wine production, exports, and marketing. Ukrainian winemakers do not receive such support, which creates an uneven playing field.

- Restrictions from retail chains in Ukraine: The lack of support for Ukrainian wines on the shelves of national retail chains, which often prefer imported wines or wines under their own brands, negatively affects the development of the domestic market and the position in the international arena.

- **3. Ways to solve problems and the role (support) of the Government**

To improve the operating conditions of winemakers and expand their presence on the EU market, the following measures are necessary:

- Licensing reform: It is necessary to change the licensing practice for wineries, ensuring the requirement of having own or leased vineyards to obtain a license. This will allow to control the quality of products and enhance their competitiveness.

- Improving the legal framework and technical capabilities for quality control: A state program is needed to prevent wine falsification, including the establishment of laboratories to control the naturalness of wines.

- Marketing strategy: The state should develop a strategy for promoting the “Ukrainian Wine” brand, focused on both the domestic and European markets, in order to stimulate the consumption of Ukrainian wines and increase their recognition.

- Regulation of retail chains’ operations: It is important to regulate the activities of retail chains by law in order to provide Ukrainian producers with better conditions for access to store shelves and avoid excessive additional costs, such as fees for introducing goods into the assortment. At the same time, there is a need to introduce mandatory quotas for the presence of Ukrainian wines on the shelves of retail outlets and on the menus of catering establishments by law.

- Support of the Ukrainian wine at official events: To introduce a legislative ban on the use of any product other than wine of 100% Ukrainian origin at official receptions, cocktail parties, and events held by state and local authorities, as well as Ukrainian diplomats in Ukraine and abroad. This approach will support national producers and facilitate the promotion of the Ukrainian wine as an important element of national identity.

- Addressing the VI-1 certification issue: The Ukrainian Government should negotiate with the EU to abolish or fund VI-1 certification for Ukrainian producers. Another option is to introduce similar requirements for EU wine imports into Ukraine

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukraine can offer the EU several strategic advantages in the wine industry:

- Strengthening competition and product diversity: Ukrainian winemakers can offer the EU market unique autochthonous wines and original products, which will enhance the diversity of wine products in Europe.

- Promoting a level playing field: During negotiations with the EU, Ukraine should insist on a level playing field for Ukrainian and European wine producers. This includes addressing tariff and non-tariff regulations, financial support, and market access.

- Quality control of imported wine products: there is a problem of different quality of food products of the same brands for different markets. For example, well-known brands often save on the quality of products made for the Ukrainian market, considering Ukrainians to be less demanding. This also applies to imported wine, which, according to the results of closed tastings, often does not meet high quality standards. To prevent this phenomenon, each batch of wine products, being imported into Ukraine, must be accompanied by a conclusion from a specialized European laboratory. The laboratory must confirm the origin of water, ethanol, carbon dioxide, and sugar of grape origin using isotopic methods (180/160 for water, 13C/12C for ethanol and carbon dioxide, and 2H and 13C for sugar). These methods are known in the EU and are used to detect falsifications of wines and cognacs, including products of Ukrainian origin. Also, there is a need to introduce a similar certificate of form VI-1 for Ukrainian wine importers, which is in effect for the export of Ukrainian wine to the EU market. This will allow to ensure fair conditions for all market participants, both European and Ukrainian.

- Support for the wine industry: Ukrainian winemakers should gain access to financial support programs similar to European ones, which will help increase the competitiveness of Ukrainian wines in EU markets.



LIGHT INDUSTRY (CLOTHING AND TEXTILE PRODUCTION)



Information sheet

Clothing and textiles always have a stable demand, especially during economic crises, when they become essential goods. Light industry is also often a source of substantial income for developing countries. According to experts, despite the significant shocks caused by the full-scale invasion, the domestic light industry of Ukraine demonstrates resilience and has the potential for further development.

Historical experience confirms that light industry played a key role in the Ukrainian economy during previous crises. In particular, after the economic crisis of 2014, this industry provided jobs for many people who lost their jobs and became the basis for the development of large Ukrainian businesses. In addition, light industry served as a platform for Ukraine to enter the international market, demonstrating the competitiveness of Ukrainian products.

It is worth noting that one of the important factors that helped domestic manufacturers stay afloat during the war was the reorientation of production to sewing clothing for law enforcement agencies, such as the Armed Forces of Ukraine and the police.

As of the end of 2023, a total of 19,702 light industry operators were registered in Ukraine, of which 13,390 specialize in clothing production (70% of the total number). In 2022, the total amount of declared revenues of the industry rose by 6%, which can be partly explained by fluctuations in the dollar exchange rate. However, by the end of 2023, the industry's revenue went down by 13% and amounted to UAH 47.2 billion. At the same time, the share of light industry in the total revenue of the processing industries increased to 3.16%, which is twice as much as in 2022. Clothing manufacturers were the ones to receive the largest revenues – UAH 23 billion.

Analysis of foreign trade shows a considerable imbalance between imports and exports of light industry products. Over the past six years, imports have significantly exceeded exports, and by the end of 2023 this gap had increased more than sixfold.

At the same time, all leading domestic manufacturers in the industry sell their products, including on the foreign market, covering a wide range of markets and offering a variety of products: from textiles and leather goods to clothing and specialized clothing (military, medical, etc.).

In 2023, there was a sharp decline in exports of textile materials, knitted fabrics, and clothing (HS categories 59-62), the total volume of which dropped by 62% compared to 2022. Supplies to the European Union fell by 57.5%.

In the period from 2011 to 2023, the European Union countries remain the main market for Ukrainian products. At the end of 2023, the share of exports to the EU amounted to 83.2% of all exports of goods under HS codes 59-62.

In 2023, Poland became the largest importer of these Ukrainian products among EU countries, accounting for 20% of total exports. Before the war, Germany was the leader in terms of purchases, but it lost ground to Poland. Denmark remains in second place in terms of procurement volumes, having imported 11% of Ukrainian light industry products (Fig. 2.14).

The largest share in exports of light industry goods (HS 59-62) in 2023 was occupied by women's and girls' clothing: suits, dresses, jackets, and other products. Their share amounted to 20% of all exports, with the main supply directions to Poland, France, Great Britain, Romania, and Germany.

Analyzing the geographical structure of imports of textile materials, knitted fabrics, and clothing by EU countries, we can conclude that the undisputed leaders among the countries supplying these products to the European market are China, Bangladesh, India, and Turkey, which account for almost 90% of imports.

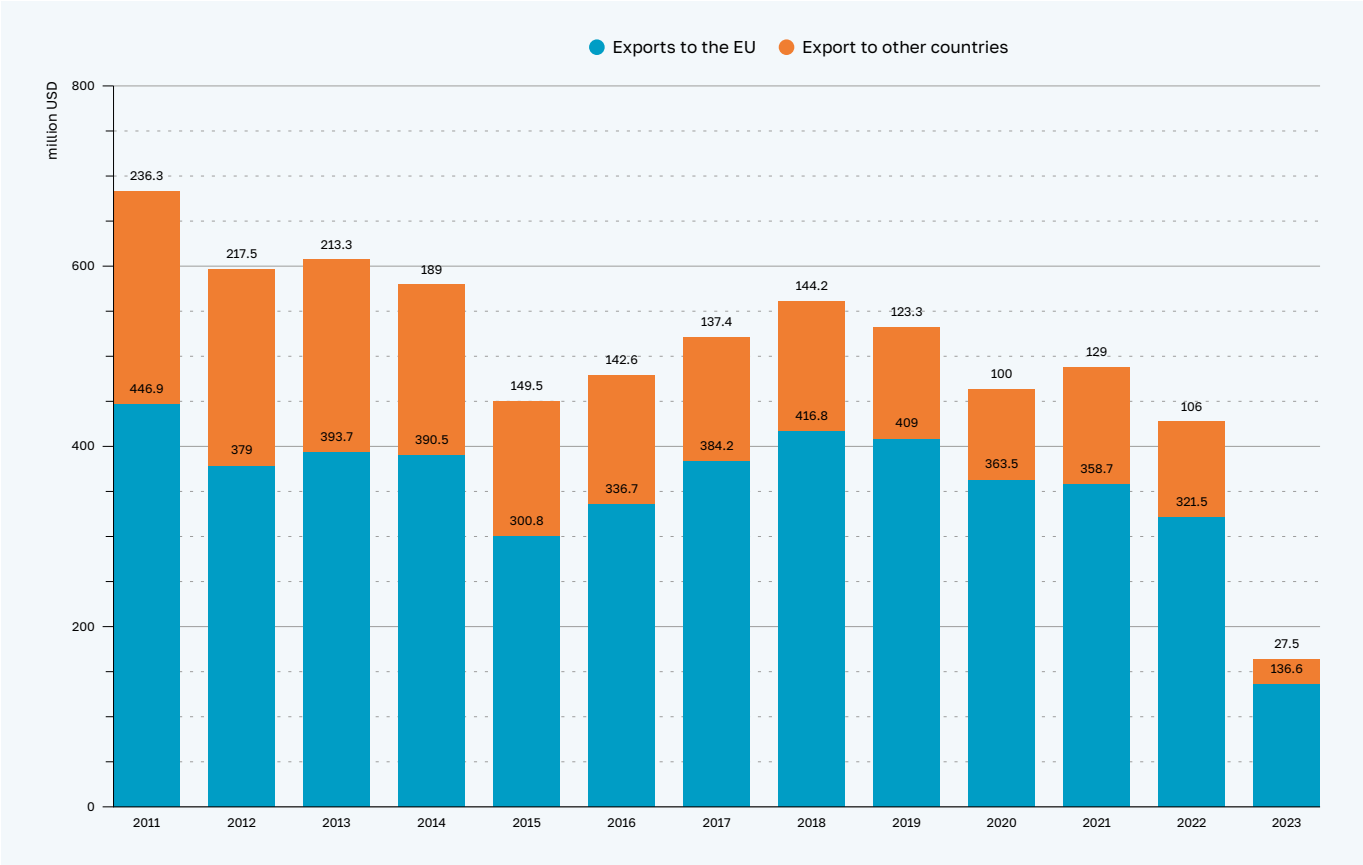


Fig. 2.14. Dynamics of exports of textile materials, knitted fabrics, and clothing (HS 59-62) from Ukraine to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

During the martial law period in Ukraine, the only major consumer of clothing remains the state security forces, which order large volumes of uniforms and specialized clothing. For Ukrainian manufacturers, this is a critical survival factor. However, if purchases are reoriented to imports from Turkey or China, many manufacturers may go bankrupt.

Despite the difficulties, the industry still has prospects for further development, especially in EU markets. After the end of the war, we can expect a sharp increase in demand for Ukrainian goods, as European manufacturers continue to withdraw from Asian markets in search of more profitable and reliable supplies.

Ukrainian light industry also benefits from the factor of its geographical proximity to Europe, which provides fast and cheap logistics chains, particularly compared to Asian manufacturers.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main challenges for boosting clothing exports to the EU are:

- Lack of technical personnel: the military conflict and emigration have led to a substantial shortage of qualified personnel, which is hindering the growth of production in Ukraine;
- The duration of the process of initiating cooperation with European companies: establishing contacts with European customers takes a significant amount of time due to verification and certification procedures; and
- Lack of certification according to European standards: Ukrainian manufacturers do not always have the necessary certification, which creates barriers to access to the EU market.

3. Ways to solve problems and the role (support) of the Government

To enhance the competitiveness of Ukrainian manufacturers and to expand the presence on the European market, the following measures must be taken:

- Reservation of technical personnel from mobilization;
- Creating programs to support Ukrainian enterprises in obtaining European certificates (this may include financial assistance and simplification of certification procedures);

- Ensuring duty-free customs clearance of raw materials: introducing a mechanism that will allow for duty-free customs clearance of raw materials for the production of clothing, underwear, etc. using VAT bills that will be redeemed after the exports of finished products; and

- Providing organizational and financial support by the Government for the participation of Ukrainian companies in international exhibitions and fairs, which will increase the recognition of Ukrainian brands and attract new customers.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukrainian light industry can offer several strategic advantages for the EU:

- Geographical proximity and fast logistics; and

- High quality of products that are not inferior to products from other countries.





WOODWORKING AND FURNITURE INDUSTRY



Information sheet

The woodworking industry of Ukraine is characterized by dynamic development and outpacing growth rates. Over the past few years, the industry has increased its weight in the structure of the manufacturing industry and non-raw material exports of Ukraine, despite extremely unfavorable trends for the development of national production.

In 2021, the wood processing products' index was 132.2 compared to 2012. By the end of 2023, it dropped to 95.7. However, given the destructive effect of the large-scale invasion, this indicator remains at a high level. For comparison, overall industrial production in Ukraine in 2023 was almost half that of 2012.

Exports of woodworking industry goods in 2012–2022 mounted from 1.06 billion USD to over 2.0 billion USD. In 2023, these exports fell to about 1.6 billion USD. However, the industry provides 4.1% of the country's export revenue and has a positive trade balance of over 1.25 billion USD. Deliveries to the EU make up the majority of Ukrainian exports of woodworking products, and the share of EU countries in the value of the industry's exports during

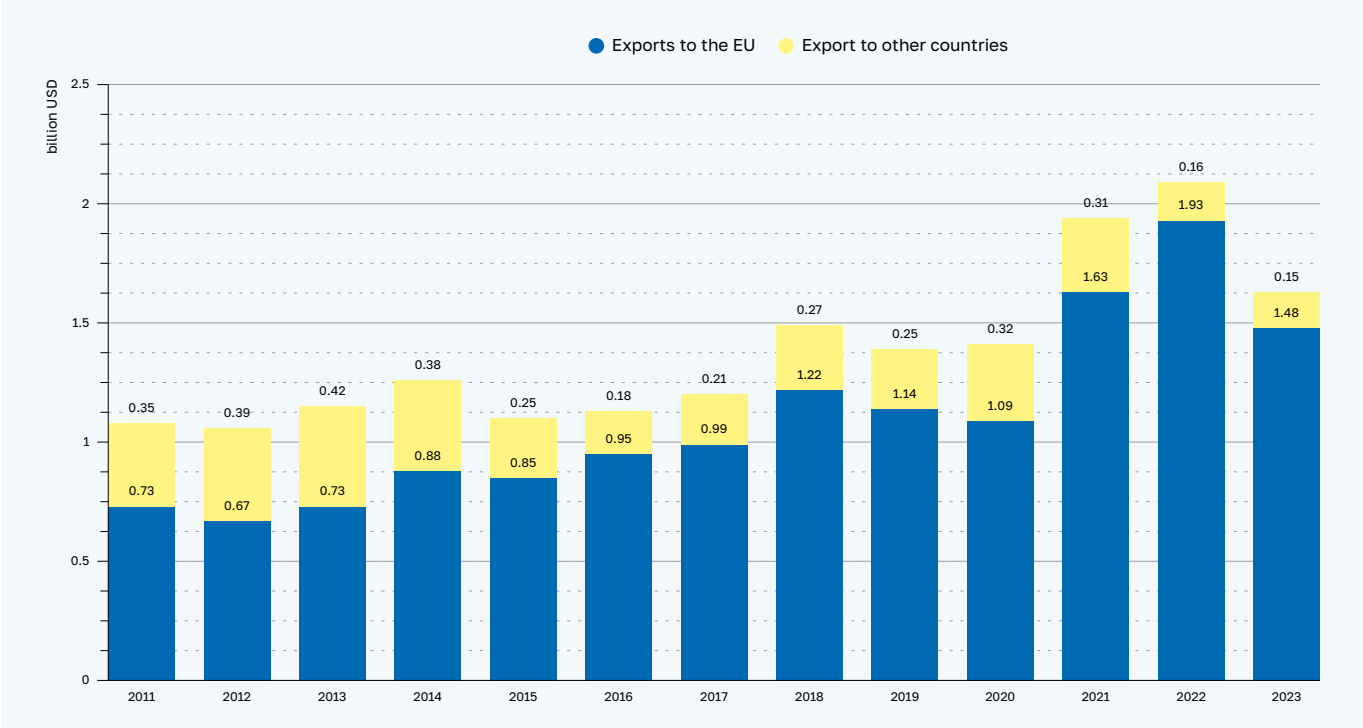


Fig. 2.15. Dynamics of exports of woodworking industry products (HS 44) from Ukraine to the EU and other countries of the world

2012–2023 went up from 69.5% to 90.7% (Fig. 2.15).

An important role in boosting both production and trade volumes was played by the introduction of a moratorium on the export of unprocessed timber in 2015, which expanded access to timber raw materials for domestic processing enterprises and created incentives for increased investment activity in the industry. During 2016–2020, capital investments in the woodworking industry of Ukraine grew by 88.5%. In 2020, their nominal volume reached UAH 7.8 billion. For comparison, the capital investment index for the entire industry of Ukraine in 2016–2020 rose by only 36.0%.

At the same time, the share of goods with a higher level of processing and added value, in particular chipboard, fiberboard, processed timber, sheets for cladding, joinery and construction parts, wooden packaging, glued plywood, parquet, etc., has naturally increased in the structure of the industry's exports (Fig. 2.16).

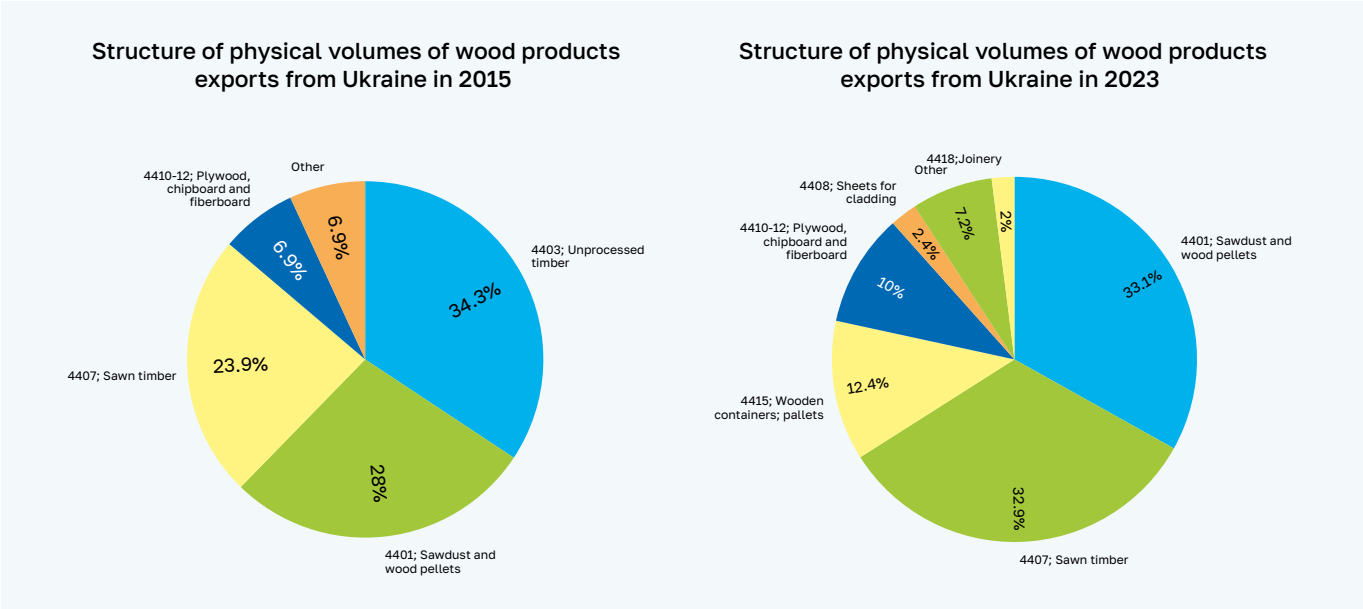


Fig. 2.16. Structure of physical volumes of wood products exports

Imports of woodworking products to the EU from third countries in 2023 amounted to 11.8 billion USD. Thus, the share of Ukrainian products in terms of value of these supplies reached 12.5%, second only to products from China with a share of 20.8%.

In general, the largest suppliers of woodworking products to the EU in 2023 were:

1. **China – 2.45 billion USD (20.8%);**
2. **Ukraine – 1.48 billion USD (12.5%);**
3. **USA – 1.24 billion USD (10.5%);**
4. **Norway – 0.82 billion USD (6.9%); and**
5. **Brazil – 0.81 billion USD (6.9%).**

The geographical structure of Ukrainian furniture exports over the past decade has largely reoriented to the European market. During 2011–2021, furniture exports from Ukraine doubled, from 171.2 thousand tons to 344.2 thousand tons. At the same time, deliveries to EU countries went up by 8.7 times, from 32.3 thousand tons to 281.2 thousand tons. In 2022, furniture exports dropped to 248.2 thousand tons, but already in 2023, they began to slowly grow and reached 260.9 thousand tons. If in 2011, EU countries accounted for only 18.9% of Ukrainian furniture exports, then in 2023 this share increased to 85.5% (Fig. 2.17).

The growth in Ukrainian furniture exports to the EU was achieved primarily at the expense of ramping up the production and supplies of wooden furniture (HS 9403 30–60) and parts thereof (HS 9403 91). The share of the corresponding products in exports to the EU in 2023 was 76.0%. Another 16.7% of supplies accounted for seating furniture. The remaining 7.3% of exports were for metal and plastic furniture and parts thereof.

In terms of the volume of supplies for wooden furniture and parts thereof to the EU, Ukraine is inferior only to Britain and China. In 2023, the EU imported 977.6 thousand tons of the corresponding products from Britain, which amounted to 42.4% of the total imports of wooden furniture and parts thereof to the EU from third countries. The corresponding imports from China amounted to 662.2 thousand tons (28.6%), from Ukraine – 169.5 thousand tons (7.4%), from Turkey – 143.9 thousand tons (6.2%), from India – 64.1 thousand tons (2.8%), and from Vietnam – 58.2 thousand tons (2.5%).



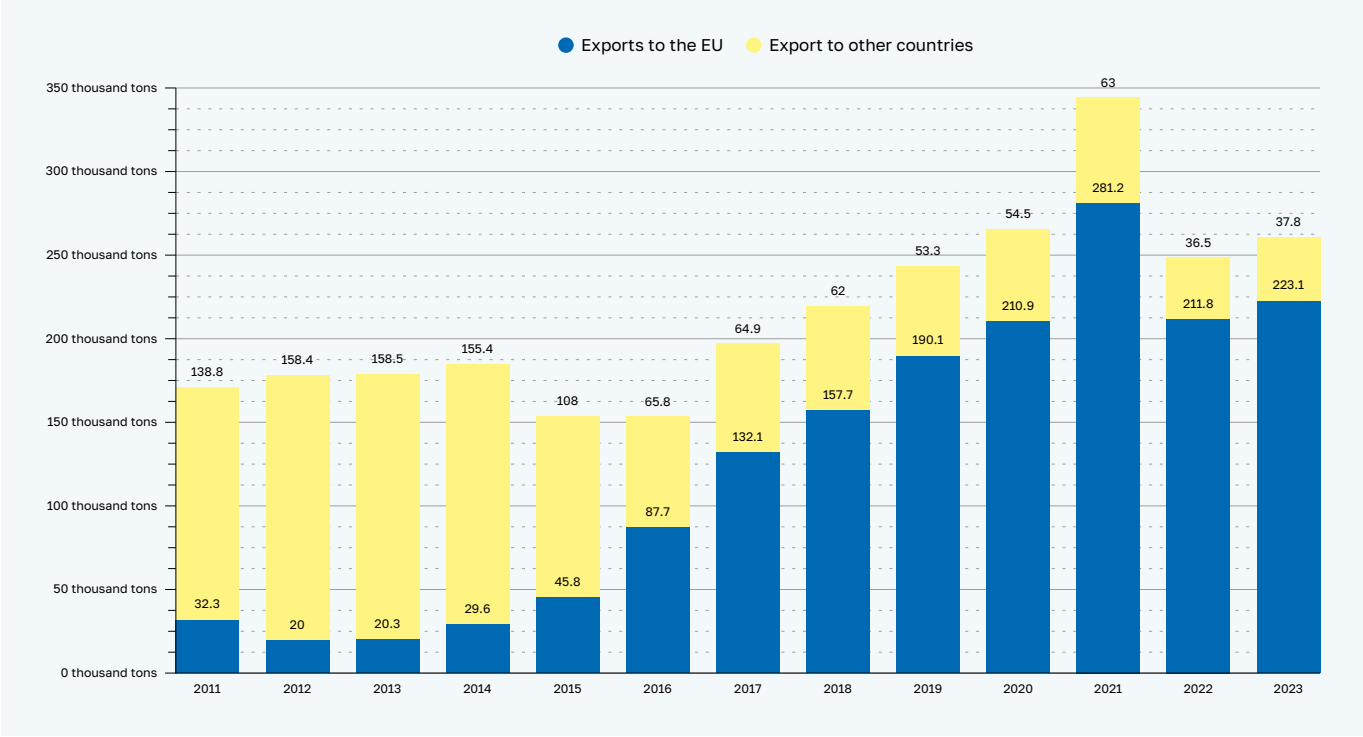


Fig. 2.17. Dynamics of furniture exports (HS 9401–9403) from Ukraine to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The outlook for exports of wood and wood products to the EU market is mixed. Manufacturers see potential in raising exports of high value-added products, such as cabinet furniture and wooden houses. This is especially true for cooperation with European retailers such as IKEA, JYSK, and XXXLutz, which are actively operating in Ukraine and are interested in developing this industry.

An important factor affecting export opportunities is the moratorium on the export of unprocessed wood introduced in 2015, which stimulated the development of woodworking enterprises in Ukraine. At the same time, companies fear that after the moratorium ends in 2025, a significant volume of raw materials may be exported abroad, which could negatively affect the domestic market.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers to expanding exports include the following factors:

- High cost of production due to rising raw material prices and insufficient volumes of wood procurement in Ukraine. Since 2022, the volume of procurement has dropped by almost 40%, which has led to a shortage of raw materials on the market.
- Logistical difficulties associated with military operations and border problems. Manufacturers are faced with the need to solve logistical issues by themselves, building their own logistics chains.
- European Union regulatory requirements for the legality of timber origin. The introduction of the new EUDR Regulation from December 30, 2024 will oblige Ukrainian manufacturers to provide accurate geographical coordinates of the lands where the timber was harvested. This creates additional difficulties for Ukrainian producers, as this data is currently often unavailable.

3. Ways to solve problems and the role (support) of the Government

Manufacturers make several suggestions to solve existing problems:

- The need to extend the moratorium on the export of unprocessed timber after 2025 to avoid a shortage of raw materials on the domestic market and protect producers.
- Introduction of electronic timber accounting with the ability to specify geocoordinates to meet EU requirements. This will help maintain access to the European market and ensure compliance with EUDR standards.

- Reform of the timber market, which should include fair trade rules, the establishment of transparent pricing mechanisms, and priority access to raw materials for domestic processors, as is done in Poland.

- Approving the progressive law on the timber market «On the Timber Market», which must take into account the following: the primary right of «Made in Ukraine» processors for the purchase of wood (important for protecting domestic manufacturers from exporting unprocessed raw materials abroad, as is done in Poland, which protects its domestic production at any cost); a fair mechanism for forming the starting price for wood; extending the moratorium on the export of unprocessed timber; and fixing an automatic mechanism for increasing/decreasing prices at auctions.

- Continuing the digitalization of the forest industry and strengthening control over the origin of raw materials, which will prevent illegal logging and ensure transparency of supply.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukrainian manufacturers have a substantial potential for cooperation with the EU, in particular due to the fact that many European companies have already invested in Ukraine's woodworking industry. They see the extension of the moratorium on wood exports as an important argument to protect the industry from uncontrolled export of raw materials and forest degradation.

In addition, the successful integration of Ukrainian enterprises into European supply chains will not only enable the support of the Ukrainian economy, but will also provide European markets with high-quality products with high added value. It can also reduce the risks of migration of Ukrainian workers to the EU, as job creation in the processing sector will stimulate the country's economic recovery.



PHARMACEUTICAL PRODUCTION



Information sheet

On the eve of the large-scale invasion, exports of pharmaceutical products (code 30 under UKTZED) from Ukraine reached a record high of 301.4 million USD in 2021. At the end of 2022, they fell in value terms to 238.6 million USD (-20.8%), rising to 278.7 million USD in 2023 (up 16.8% compared to the previous year). During January–May 2024, Ukrainian exports of pharmaceutical products amounted to 129.1 million USD, which is 21.4% more than in the same period of the previous year.

Supplies of domestic pharmaceutical products to the EU maintain a steady growth trend, which continued throughout 2022–2023. However, the volumes of these supplies currently occupy a fifth of the total structure of medicines' exports from Ukraine. In particular, in 2023 they amounted to 55.4 million USD, which was only 19.9% of the total exports of pharmaceutical products from Ukraine. The main exports of the relevant goods were directed to Central Asia (Uzbekistan, Kazakhstan, Azerbaijan, and Kyrgyzstan), Georgia, Moldova, and Iraq.

The commodity structure of Ukrainian exports of pharmaceutical products is dominated by medicines put up for retail sale (code 3004 under UKTZED) with a share of 62.6% and immunological products obtained using biotechnological processes, vaccines, and similar products (3002) with a share of 16.8%.

In international trade, Ukraine continues to be a net importer of pharmaceutical products. In 2021, imports of medicines to Ukraine reached over 2.98 billion USD, but by the end of 2023 it went down to 2.14 billion USD. A significant factor in the considerable discrepancy between the value indicators of exports and imports in the industry is the difference in prices for Ukrainian and foreign medicines. This difference also affects the ratio on the domestic market: in particular, in the first half of 2023, in quantitative terms, 63.4% of pharmaceutical products on the market were from Ukrainian manufacturers, while their share in monetary terms was only 37%.

Position of domestic producers

Farmak

1. State of the industry and prospects for exports to the European Union market

The pharmaceutical industry of Ukraine is in an active stage of the process of reforming national legislation and adapting to European standards. Despite significant progress, the harmonization of Ukrainian norms with the EU legal framework (EU acquis) requires further steps aimed at the full-fledged application of European approaches and practices for regulating the production and circulation of medicinal products in Ukraine.

The Ukrainian pharmaceutical industry demonstrates great potential in the context of exporting products to the EU and integrating into unified supply chains of medicines in the European Union.

As of today, the market has a number of national companies that already meet European standards, export their products to EU member states, and have established themselves there as reliable partners.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers to increasing the presence of Ukrainian pharmaceutical companies in the EU market include:

- Double inspections for GMP compliance: Currently, Ukrainian

pharmaceutical exporting companies are forced to undergo two separate inspections to confirm compliance with Good Manufacturing Practice (GMP) requirements. Manufacturing Practice, GMP). The first inspection is carried out by national authorities to confirm compliance with Ukrainian requirements, and the second by European regulators to confirm compliance with EU standards. This creates an additional financial burden on companies.

- Financial burdens due to batch release control: Another important barrier is the need to undergo batch-by-batch control of consignments of goods, being exported to the EU. Such control costs an average of 5 thousand euros per batch. This increases the self-cost of Ukrainian medicines exported to the EU by an average of 24%, and for low-priced drugs by 40-50%.

- Transfer of analytical techniques. Another substantial financial challenge is the need to transfer analytical methods to laboratories in the EU. This adds up to 10 thousand euros to the cost of each product when exported. If the products are supplied to different importers in the EU, the techniques must be transferred to several laboratories, which significantly increases the cost of exporting the products.

- Political and corruption risks. Despite active work on European integration, there are risks associated with political instability and corruption that may affect the recognition of Ukrainian certificates in the EU.

- Problems with market control of the production, import, and circulation of medicinal goods. Due to the moratorium on inspections during the war, there are difficulties with controlling the quality and safety of medicines, which also complicates access to international markets.

3. Ways to solve problems and the role (support) of the Government

The ultimate long-term goal is to conclude agreements on mutual recognition of GMP certificates between Ukraine and EU member states. At the same time, the introduction of the «Euronumber» mechanism can be considered as an interim solution, which will provide Ukrainian companies that already have GMP certification in accordance with EU requirements with the opportunity to export their products without the need to undergo additional inspections. This will significantly reduce certification costs, abolish the mandatory batch release control procedure, and will make Ukrainian products more competitive on the European market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

In the context of negotiations between Ukraine and the European Union in the pharmaceutical sector, a key aspect is the need to introduce temporary mechanisms to eliminate non-tariff barriers to the access of Ukrainian medicinal products to the EU market. Given the complexity and duration of negotiations on the conclusion of long-term agreements, such as MRA (Mutual Recognition Agreement) or ACAA (Agreement on Conformity Assessment and Acceptance of Industrial Products), Ukraine proposes to introduce a partial integration mechanism called «Euronumber».

Ukraine's main negotiating position is to quickly create conditions for Ukrainian pharmaceutical products to enter the European market without having to wait for agreements on full mutual recognition of GMP certificates to be signed. The Euronumber is a mechanism that will allow Ukrainian companies, which already comply with European quality standards, to receive a special number confirming that their products meet EU requirements. This approach partially solves the problem of access to the EU market for products, reducing the need for additional checks and inspections.

The introduction of such a mechanism will facilitate smoother integration of the pharmaceutical sector into the European market. The Euronumber mechanism is a logical extension of approaches already tested in other industries, such as the food or automotive industries, which allows to avoid long delays in negotiations on full mutual recognition of standards.



CHEMICAL INDUSTRY



FERTILIZER PRODUCTION

Information sheet

Fertilizer production in Ukraine is one of the industries that has suffered perhaps the most devastating consequences of the large-scale invasion of the russian federation. The production of nitrogen fertilizers, which accounts for the majority of production volumes in Ukraine among other types of industry products, dropped from 5.1–5.2 million tons in 2020–2021 to 1.1 million tons in 2022. Already in 2023, there was some recovery in production, which reached 2.05 million tons. According to the results of the first half of 2024, the production of nitrogen fertilizers in Ukraine is at approximately the same level as in the previous year. Production volumes stabilized at a level 2.5 times lower than before the large-scale war, primarily due to the suspension of the operation of the Sievierodonetsk Association «Azot» and «Dneproazot», as well as the Odessa Port Plant (since 2021), which are among the leading enterprises in the industry.

In the context of falling production volumes, the vast majority of manufactured products in the industry were directed to meet the needs of the domestic market, so the export of nitrogen fertilizers in 2022 fell almost sixfold – from 1.72 million tons to 287.7 thousand tons, of which almost the entire volume of supplies (98.3%) was directed to the EU, mainly to Romania, Hungary, and Slovakia. In 2023, Ukrainian exports of nitrogen fertilizers decreased to 108.5 thousand tons, of which 105.5 thousand tons (97.2%) were exports to EU countries (Fig. 2.18).

Along with this, the rapid recovery of demand for fertilizers

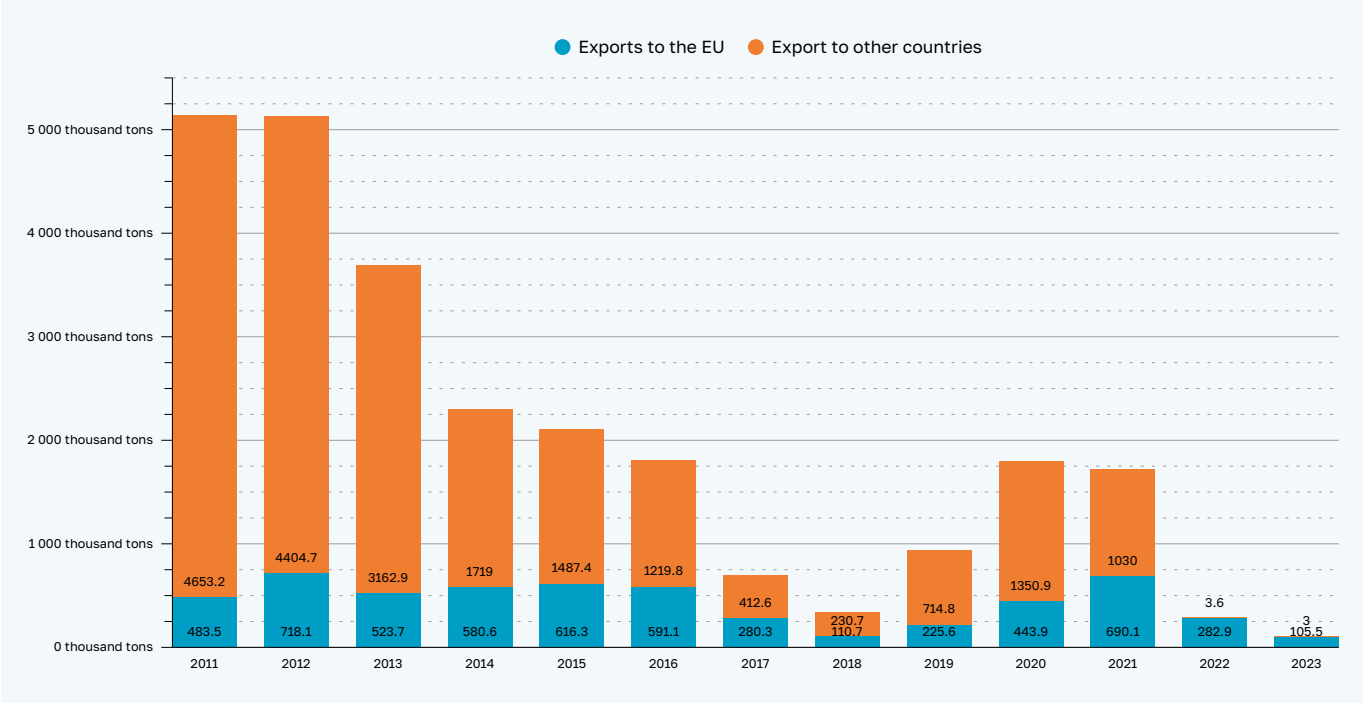


Fig. 2.18. Dynamics of exports of nitrogen fertilizers (HS 3102) from Ukraine to the EU and other countries of the world

among enterprises of the agricultural sector of Ukraine led to an increase in imports of the corresponding products. Imports of nitrogen fertilizers to Ukraine in 2023 amounted to 1.16 million tons (rising by 2.25 times compared to the previous year); thus, the share of imports in apparent consumption was 37.4%. In 2021, with imports of nitrogen fertilizers in the amount of 1.4 million tons, this share was 28.7%.

The need for other types of chemical fertilizers – potash, phosphorus, and complex ones – is covered by domestic farmers mainly through imports. In 2023, the total import of fertilizers to Ukraine in value terms amounted to 1.23 billion USD, while exports amounted to only 35.0 million USD. Thus, a record trade deficit in the industry of almost 1.2 billion USD was achieved.

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

Nitrogen fertilizer production capacities in Ukraine have been largely preserved and remain relatively intact. Thus, Ukraine has the capacity to produce about 2.5 million tons of urea, 2 million tons of ammonium nitrate, 300 thousand tons of calcium nitrate, up to 1.5 million tons of urea-ammonia mixture, and about 1.5-1.8 million tons of commercial ammonia. There are no technical barriers to Ukrainian fertilizers entering the EU market. The Ukrainian chemical industry can provide a replacement for about 50% of the existing import of nitrogen fertilizers from the russian federation to the EU. At the same time, Ukraine has the ability to produce «green» fertilizers, «green» ammonia, and «green» hydrogen, provided that it integrates into the European market and the Green Deal.

2. Main problems and barriers to entering (or expanding presence in) the European market

Prospects for Ukrainian fertilizer producers to restore their positions on the European market are complicated by the massive import of cheap nitrogen fertilizers into the EU from the russian federation, as well as from a number of other countries with subsidized energy resources (Kazakhstan, Uzbekistan, Azerbaijan, Turkmenistan, and republic of belarus). Therefore, it is proposed to establish an embargo on the import of fertilizers from the russian federation by including fertilizers of group 3102 in the EU sectoral sanctions.

The threat of CBAM after the end of the transition period remains an important problem, as this will significantly affect the price competitiveness of domestic fertilizers on the EU market.

3. Ways to solve problems and the role (support) of the Government

In terms of the climate policy, the state should ensure that nuclear energy and gas generation are designated as transitional for Ukraine in order to reduce the artificial increase in payments and charges for carbon emissions.

It is important to ensure that the existing EU approach to calculating CO_2 and NO emissions for existing units is maintained at the “as is” level for the period of their technological/life cycle.

It is necessary to recognize the fact of a single/unified market for nitrogen fertilizers between the EU and Ukraine from the date the economic part of the negotiations on Ukraine’s accession to the EU started and to provide Ukrainian producers with the opportunity to join European financing programs within the framework of the Green Deal.

To establish an embargo on the import of fertilizers from the russian federation to the EU and ensure a ban on the re-export of russian fertilizers through the EU to Ukraine, prohibiting the transit of russian fertilizers through the territory of the EU.

In domestic policy, the state must:

- Strengthen control over the quality of fertilizers, including imported fertilizers, by checking their quality for compliance with national standards and issuing certificates of conformity through industry-specific institutions;
- Strengthen monitoring of fertilizer exports by the russian federation in circumvention of current sanctions through third countries; and
- Adopt the Strategy for the Development of the Chemical Industry of Ukraine proposed by the Union of Chemists of Ukraine.

4. Cooperation and strategic benefits for the EU. Negotiating positions

According to fertilizer manufacturers, involving industry associations in discussing draft regulations, introducing new methods and technologies, involving them in financial scientific programs, training specialists, etc. will allow improving product quality and production safety, mitigating the negative impact on the environment, reducing dependence on the russian federation, and ensuring food security for the EU and Ukraine.





PRODUCTION OF HOUSEHOLD CHEMICALS AND PERFUMERY AND COSMETIC PRODUCTS

Information sheet

Compared to the pre-war year of 2021, the sales volumes of household chemicals and perfume-cosmetic products in 2023 decreased by 18% in monetary terms but grew by 84% relative to 2022. It is worth noting that in physical terms, the sales volumes of these products declined more significantly. Despite these challenges, this sector of the chemical industry has demonstrated relative stability, considering the population outflow due to military actions and demand volatility. The growth in monetary sales in 2023 was largely driven by price increases and changes in the pricing structure of sold products.

In the production of synthetic detergents and cleaning agents, several companies ceased operations in 2022, negatively affecting production and sales volumes of these products. Conversely, the sales volumes of perfume and cosmetic products manufactured in Ukraine showed only a slight decline in monetary terms in 2022 compared to the pre-war year (-5%). By 2023, these volumes rebounded, showing a 34% increase compared to 2022. This positive trend was primarily driven by pricing factors, affiliations of some companies with foreign partners, and the relative stability of export supplies.

During 2011-2023, the structure of exports of these product categories was dominated by perfumery and cosmetics, the export value of which in 2023 amounted to 56.2 million USD (66% of total exports).

Until 2015, the main foreign market for household chemicals and perfumery and cosmetic products of Ukrainian origin was the russian federation and other CIS countries.

Since 2015, export volumes have begun to decline, including due to reduced supplies to russia. Starting from 2022, exports of these products to the russian federation have been almost non-existent.

The sales of household chemicals and perfumery and cosmetic products on foreign markets has dropped by 4 times over the past 10 years, from 346.3 million USD (2013) to 85.3 million USD (2023).

Against the background of a general decline in exports of these categories of goods, the share of exports to the EU tended to increase during 2016–2023. In value terms, sales volumes of domestic products to the European market have been relatively stable in recent years.

In 2023, Ukraine sold household chemicals and perfumery and cosmetic products on the European market for a record amount of 43.2 million USD, exceeding the result of the previous year by 36%.

The main importers of these Ukrainian goods among EU countries were Poland and Germany, while other deliveries were made to the markets of Moldova, Uzbekistan, Kazakhstan, and other countries (Fig. 2.19).

According to the results of 2023, Ukraine's share in total EU imports under HS codes 3401, 3402, 3405, 33 was only 0.3%. The main countries supplying these products to the European market were:

1. Great Britain with a share of 24.6% (3.1 billion USD);
2. USA – 22.2% (2.8 billion USD);
3. Switzerland – 17.5% (2.2 billion USD).

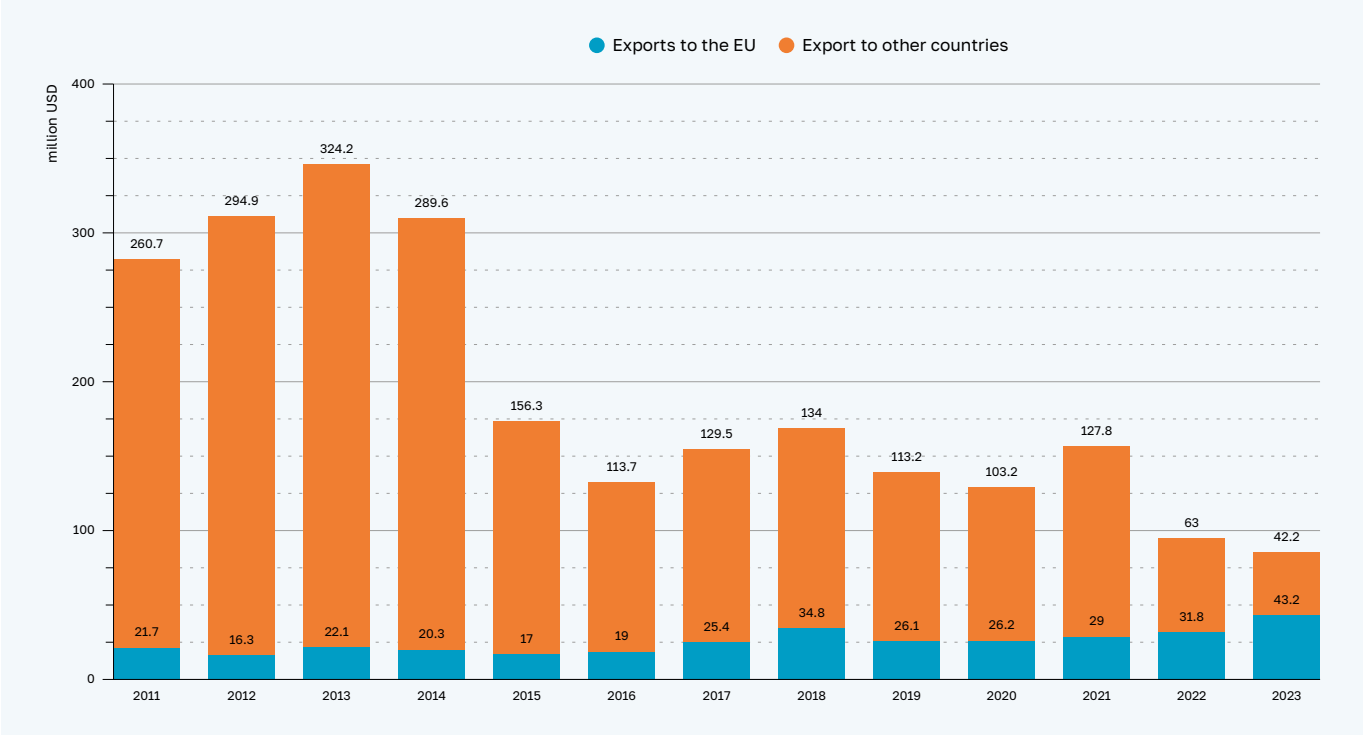


Fig. 2.19. Dynamics of exports of household chemicals and perfumery and cosmetic products (HS 3401, 3402, 3405, 33) from Ukraine to the EU and other countries of the world

Position of domestic producers

cedepe elfa UKRAINE Pharm

1. State of the industry and prospects for exports to the European Union market

Ukrainian manufacturers of household chemicals and cosmetic products assess the domestic market of cosmetics in Ukraine as facing numerous challenges, in particular due to the decline in the purchasing power of the population and the increase in costs for raw materials and energy. Consumption of these products in the national market may rise after the stabilization of the economic situation and thanks to the growth in demand for natural and organic products.

At the same time, domestic companies see positive prospects for export development. In their opinion, in the near future, we can expect an increase in demand for Ukrainian cosmetic products and household chemicals on international markets, in particular in the EU. The main factors that will contribute to export growth are:

- Gradual improvement of the quality of Ukrainian products;
- Implementation of international standards;
- Growing demand for natural cosmetics; and
- Use of innovative developments.

Manufacturers are actively seeking to diversify export markets, going beyond the CIS and Baltic countries and trying to gain a foothold in Western Europe, North America, the Middle East, and Asia.

2. Main problems and barriers to entering (or expanding presence in) the European market

Among the key problems and barriers, Ukrainian manufacturers note the following:

- The need to certify products in accordance with the requirements of European standards, which requires significant time and resources;
- Potential logistical difficulties due to the current economic situation;
- Geopolitical instability, which may affect trade agreements;
- High level of competition on the EU market, dominated by large international brands with well-developed sales networks; and
- complex requirements for the environmental friendliness and safety of cosmetic products.

3. Ways to solve problems and the role (support) of the Government

Ukrainian manufacturers offer the following main ways to overcome problems, which involve the active role of the Government of Ukraine:

- Financial incentives: introduction of tax preferences and grant

programs for companies that invest in the modernization of production facilities and the introduction of innovations;

- Certification support: assisting in harmonizing Ukrainian standards with European ones and organizing training for manufacturers concerning EU requirements. The Government can provide support in creating the necessary infrastructure, cooperate with European certification bodies, and organize training for Ukrainian manufacturers on EU requirements. This will help reduce the time and costs of entering the European market;

- Scientific research: investing in research projects to develop new cosmetic formulas that meet current trends on the EU market;

- Export promotion: The Government can organize trade missions and help Ukrainian manufacturers participate in international exhibitions, including in the EU; and

- Logistics: streamlining customs procedures and improving transport infrastructure to facilitate exports. The Government can work to simplify customs procedures, improve road infrastructure, and create favorable conditions for transporting goods.

4. Cooperation and strategic benefits for the EU. Negotiating positions

The European market remains strategically important for Ukrainian manufacturers due to its proximity and high level of consumer solvency. In addition, the Association Agreement between Ukraine and the EU provides competitive advantages in the form of duty-free market access, which makes Ukrainian products attractive due to their lower price. In this regard, it is important to support the harmonization of standards and certification to ensure a stable presence of Ukrainian products on the EU market.

Collaboration between Ukraine and the EU in the field of household chemicals and perfumery and cosmetic products has a significant potential and can be mutually beneficial in various aspects, including trade, technical regulation, scientific research, training, and investment. In particular, the main areas for cooperation may be:

- Trade and investment: European consumers gain access to high-quality cosmetic products made from natural ingredients, and Ukraine gains new sales markets and investments in production facilities.

- Technical cooperation: Ukrainian companies can use the EU's experience in product certification and regulation, which will allow them to adapt to European standards.

- Scientific projects: Joint scientific research in the field of developing new ingredients can become the basis for creating innovative products that meet the needs of today's market.

- Training programs: Organization of joint training events for the exchange of experience between Ukrainian and European specialists.



PRODUCTION OF POLYMER MATERIALS, RUBBER, PLASTICS, AND PRODUCTS THEREOF



MANUFACTURE OF RUBBER AND RUBBER PRODUCTS

Information sheet

Economic activity in Ukraine under ZED CODE 22.1 “Manufacture of rubber products” was marked by a prolonged downward trend in 2014–2020. Only in 2021 did the industrial production index of this sector exceed the level of 2013 by 1.9%. However, in 2022, there was a two-fold drop in production volumes, while the recovery of growth in 2023 amounted to 14.3% in annual terms. In the first quarter of 2024, the industry showed further growth of 16.6% compared to the same period of the previous year.

Exports of rubber and articles thereof (code 40 under UKTZED), which in 2012 reached 219.4 million USD, decreased to 70.0 million USD in 2015. Having gradually recovered to 121 million USD in 2021, they dropped to 45.8–47.3 million USD in 2022–2023. The value of exports of rubber and articles thereof to the EU during 2015–2021 grew from 21.5 million USD to 42.5 million USD, while in 2022–2023 it went down to 21.3–22.5 million USD. However, the decline in total exports, both in 2012–2015 and after the large-scale invasion, was primarily due to a reduction in supplies to third countries, while exports to the EU remained at about the same level. As a result, the share of EU countries in domestic exports of rubber and rubber products increased from 16.5% in 2012 to 46.5% in 2023 (Fig. 2.20).

The basis of Ukrainian exports of rubber products to the EU countries and in general is made up of two commodity groups: pneumatic tires (code 4011 under UKTZED) with a share of 40.3%

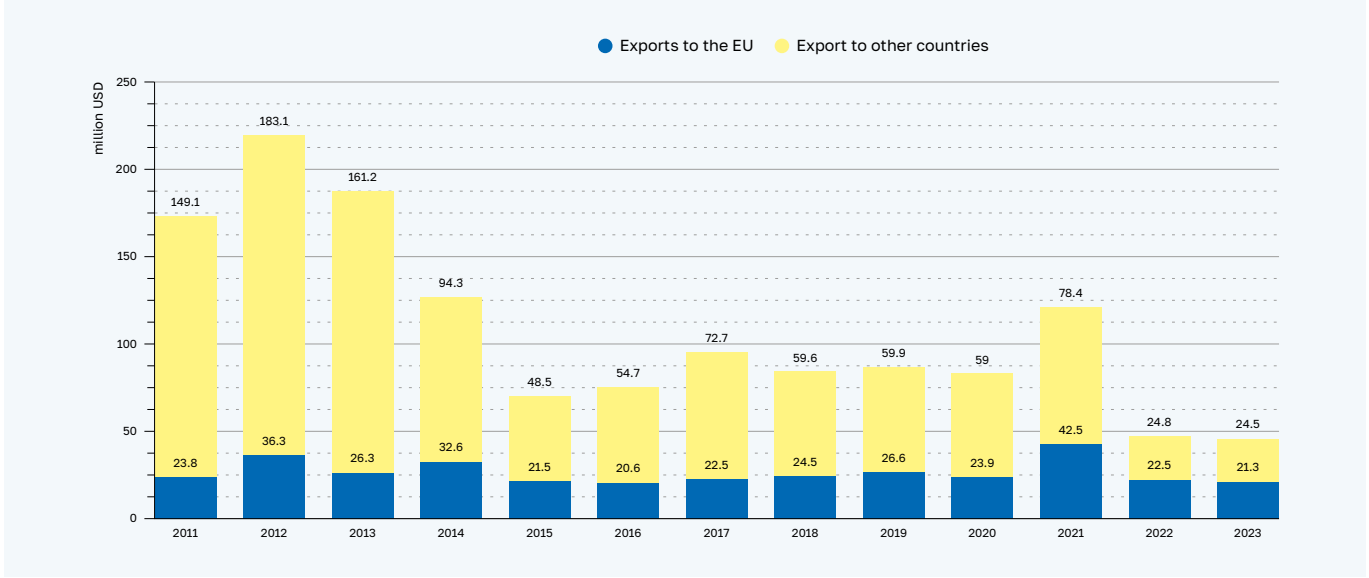


Fig. 2.20. Dynamics of exports of caoutchouc, rubber, and article thereof (HS 40) from Ukraine to the EU and other countries of the world

in total exports of rubber products and 43.5% in exports to the EU, as well as various vulcanized rubber products, primarily gaskets, seals, and sealing materials (4016 93) and floor coverings and mats (4016 91), with respective shares of 17.0% and 19.1%.

In 2021, exports of pneumatic tires from Ukraine exceeded 2.5 million pieces, of which 1.08 million pieces were delivered to EU countries. In 2023, domestic exports of these products amounted to only 599,000 pieces, of which 230,500 pieces were sent to the EU. During January–May 2024, the EU imported 178,000 pieces of pneumatic tires from Ukraine, which is twice as much as in the same period of the previous year.

Total exports of the above-mentioned vulcanized rubber products during 2021–2023 dropped from 5.62 thousand tons to 1.95 thousand tons, including to the EU – from 1.96 thousand tons to 1.21 thousand tons.

Position of domestic producers

«KIEVGUMA»
WE ARE AROUND ON EVERY STEP!

1. State of the industry and prospects for exports to the European Union market

According to domestic producers, the prospects for the restoration and expansion of production in the rubber industry depend on the end of the war. It is expected that after the victory of Ukraine, explosive development is possible, with a boost in production by tens of percent each year during the first few years, as well as an increase in exports to the EU by 15-40% in the first year after the war.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barrier to entering the EU market is high regulatory requirements. The process of product certification is expensive and time-consuming. In addition, Ukraine lacks testing laboratories and certification centers for rubber products, which makes it difficult to comply with European standards.

3. Ways to solve problems and the role (support) of the Government

To facilitate access to the European market, the Ukrainian Government should promote the establishment of certification centers and laboratories that meet EU requirements. It is also important to compensate for the costs of product certification in other countries and simplify the certification process. In addition, the state should support manufacturers through continuous improvement of the terms of the Association Agreement with the EU, in particular in terms of reducing customs duties.

4. Cooperation and strategic benefits for the EU. Negotiating positions

To strengthen cooperation with the EU, the Ukrainian Government should support the participation of manufacturers in international exhibitions and trade missions and promote Ukrainian products in Europe. It is also worth working on the recognition of Ukrainian laboratories at the EU level, which will cut down the certification costs.





PRODUCTION OF PLASTICS AND PLASTIC ITEMS

Information sheet

In recent years, the development of enterprises specializing in the production of plastics and plastic items has been significantly influenced by external factors, the main of which was the full-scale invasion of russia. Military operations, destruction of infrastructure, and occupation of certain territories have led to the shutdown or destruction of enterprises. For example, Opentek Company, the largest manufacturer of plastic windows, is currently under occupation, and others, such as the Novomoskovsk Factory, are forced to adapt to new conditions.

Also, the main influencing factors were:

1. Energy crisis: Due to shelling of critical infrastructure in late 2022, many manufacturers faced power outages, which significantly affected production. The industry's high energy dependence makes it difficult to switch to alternative energy sources, which is not always economically expedient.

2. Migration of production facilities: Some companies have moved their production to western Ukraine or abroad. For example, Plastbox moved to Poland, and Rosanpak opened its production shops in the Lviv region. This trend is explained not only by the threat of shelling, but also by the fears of foreign partners regarding cooperation with Ukrainian enterprises.

3. Lack of raw materials: Due to the war, imports of raw materials for the production of plastics were substantially limited.

4. Declining demand for construction plastics: The war caused a downturn in the construction market, which led to a decrease in demand for plastic building materials.

5. Change in import structure: The loss of the markets of belarus and russia, which previously accounted for up to 25% of Ukrainian imports of raw materials for the manufacture of plastic products, has caused a shortage of some goods. At the same time, Ukrainian enterprises quickly adapted to the new conditions and established supplies from European countries.

6. A significant part of the demand for plastic products is covered by imports. The increase in the cost of imported raw materials and energy sources raises the cost of production and reduces the competitiveness of Ukrainian goods.

However, it is also worth mentioning some positive trends in the industry. In particular, the reconstruction processes of war-torn regions will stimulate the demand for plastic construction materials, such as window profiles, pipes, and fittings, which will lead to the boost of production by domestic enterprises.

It is also worth noting the growth of the plastic packaging market. The war led to an expansion in the market for containers and packaging, particularly for storing liquids.

Overall, despite the negative impact of the war, the plastics market in Ukraine continues to adapt, and in the near future, we can expect recovery and growth in certain segments due to the reconstruction of the country and reorientation to new markets.

As for the sale of plastics and plastic products by domestic enterprises on foreign markets, it is worth indicating the decline in exports in the period from 2014 to 2016. Since 2017, exports of this category of goods have begun to gradually increase, but their value has not returned to the indicators of 2012, when Ukraine sold goods worth 780 million USD on foreign markets.

During 2011-2021, the main consumer countries of Ukrainian

polymeric materials, plastics, and articles thereof were russia and belarus.

In 2022, exports to these countries stopped completely, which negatively affected the overall export dynamics of domestically produced plastics and plastic products. Thus, in 2022, exports of plastics and articles thereof dropped by 55% compared to 2021, and in 2023 – by 71%.

Ukrainian manufacturers have gradually begun to reorient themselves towards the European market, selling their goods on the markets of Poland, Slovakia, and Germany, as well as in Turkey and Moldova.

According to the results of 2023, the main importing countries of plastics and plastic products of Ukrainian origin were: Poland (imported for the amount of 48.5 million USD), Moldova (43.1 million USD), Slovakia (21 million USD), Romania (20.5 million USD), and Germany (19 million USD) (Fig. 2.21).

At the same time, Ukraine's share in the total EU imports of this category of goods is negligible and amounts to 0.3% (2023). The main countries supplying polymeric materials, plastics, and articles thereof to the European market are:

7. **China – 23.4% (14.6 billion USD);**
8. **USA – 16.4% (10.3 billion USD); and**
9. **Great Britain – 11.2% (7 billion USD).**

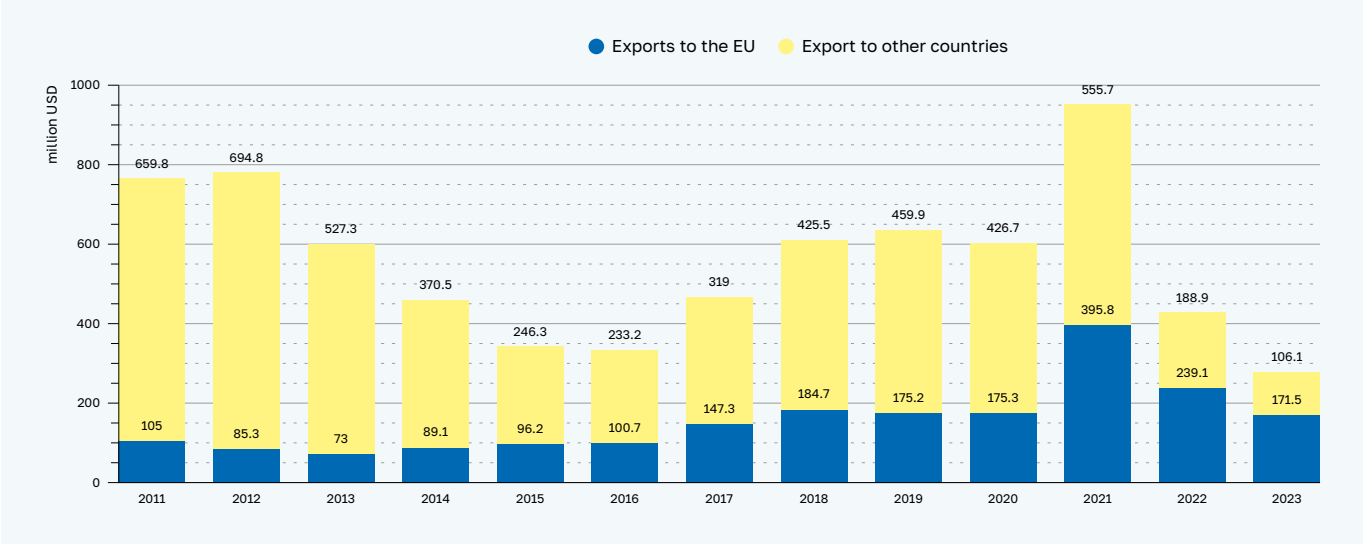


Fig. 2.21. Dynamics of exports of polymeric materials, plastics, and articles thereof (HS 39) from Ukraine to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

Manufacturers of metal-plastic windows generally predict an increase in the share of metal-plastic in the total number of translucent structures (windows) on the Ukrainian and global markets (relative to wooden and aluminum windows). However, the Ukrainian market for metal-plastic windows has been falling since the start of the full-scale war.

The EU is the main sales market for domestic manufacturers of metal-plastic windows. Exports are growing overall, and the geography of supplies is expanding at the expense of refugees and migrants from Ukraine, as well as due to the popularization of the Ukrainian brand in the world. However, there is a significant competitor in the EU market – Poland. At the same time, the markets of the USA and Canada are considered very promising.

2. Main problems and barriers to entering (or expanding presence in) the European market

Major problems for exports are the lack of checkpoints at the border with EU countries and other logistical problems.

3. Ways to solve problems and the role (support) of the Government

Further activation of Ukrainian exports of metal-plastic windows to the EU requires maximum simplification of logistics and preservation of visa-free transportation for shipments to the European market.

As for the area of domestic economic policy, the Government should take care of introducing automatic VAT refunds for exporters.

PRODUCTION OF CEMENT, CERAMICS, GLASS AND ARTICLES THEREOF



CEMENT PRODUCTION

Information sheet

In 2021, the cement market amounted to over 10 million tons, which was a record high in the last 7 years. This was facilitated by a number of objective factors such as the development of the construction industry, a decline in cement imports (due to the introduction of trade protection instruments), as well as the ability of cement producers to fully meet all market needs for cement of proper quality.

Exports of this product also reached record levels, which according to the results of 2021 amounted to 970.7 thousand tons, exceeding the result of 2020 by 24.5%. Almost the entire export volume in 2021 was ordinary cement, which was exported mainly to neighboring Romania, Hungary, Moldova, Poland, and Slovakia.

The full-scale invasion of the russian federation into Ukraine led to a reduction in the production and consumption of cement on the domestic market in 2022. Three cement plants have been in the occupation zone since 2014: two plants in Amvrosiivka (Donetsk region) and a cement plant in Bakhchysarai (AR Crimea). The Baltsem plant (Kharkiv region) found itself in the combat zone in 2022 and was destroyed, which led to a complete stoppage of production.

In 2023, cement production amounted to 7.4 million tons, which was only 67% of pre-war (2021) production.

Also, compared to 2022, the volume of Ukrainian cement exports increased by 227.1 thousand tons, to 1,169.7 thousand tons (Fig. 2.22).

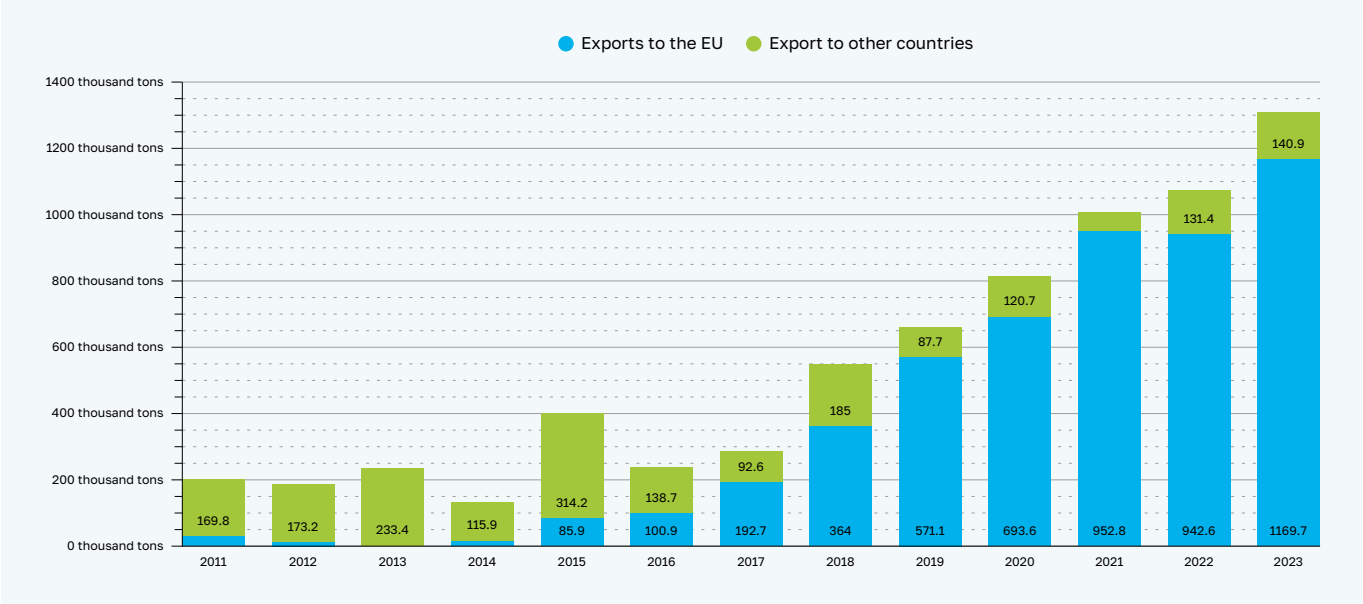


Fig. 2.22. Dynamics of exports of cement (HS 2523) from Ukraine to the EU and other countries of the world

According to the results of 2023, the share of exports to the European market amounted to more than 89% of the total export of domestically produced cement. The main consumers of Ukrainian cement on foreign markets in 2023 were: Romania (507.5 thousand tons), Poland (334.6 thousand tons), Hungary (226.5 thousand tons), and Moldova (160 thousand tons).

Cement suppliers to the EU in 2023:

1. **Turkey in the amount of 3.3 million tons (36% of total imports to the EU);**
2. **Algeria – 1.8 million tons (19%);**
3. **Ukraine – 1.2 million tons (12.6%);**
4. **Tunisia – 0.8 million tons (8.4%); and**
5. **Egypt – 0.4 million tons (4.4%).**

Based on optimistic forecasts for reconstruction, and assuming that Ukraine will spend about $35 billion annually on the relevant needs, about 12.6 million tons of cement will be needed. Which is quite realistic for the industry.

At the same time, it is worth noting that the economic benefit from cement exports to foreign markets, in particular to the EU, will persist only until the implementation of the Carbon Border Adjustment Mechanism (CBAM), which provides for the introduction of taxation on goods produced with high levels of greenhouse gas emissions, including cement.

Starting in 2026, Ukrainian manufacturers will need to purchase CBAM certificates when exporting, the price of which will correspond to the price of carbon emission quotas in the EU.

Expenses on the CBAM certificates will make Ukrainian exports uncompetitive under the martial law (under the conditions of limited demand in the domestic market) and the impossibility of modernizing domestic enterprises during the war to catch up with European companies in terms of carbon emissions.

Position of domestic producers

УКРЦЕМЕНТ
АСОЦІАЦІЯ ВИРОБНИКІВ ЦЕМЕНТУ УКРАЇНИ

1. State of the industry and prospects for exports to the European Union market

The main challenges for the cement industry were:

- Disruption of supply chains and logistics routes, which has complicated the delivery of raw materials and finished products. Some construction sites are located in or near combat zones, which also complicates the supply of cement;
- Increasing costs of energy and transportation due to reduced availability and rising fuel prices; and
- The war affected the construction industry, in particular, due to the destruction of infrastructure and residential buildings, which led to an increase in the need for cement for reconstruction. The nature of construction has also changed. The category of «engineering structures» has grown, which is conditioned by the restoration of transport and industrial facilities, bridges, and other infrastructure facilities destroyed during the war. The manufacture of products depends on market needs. Unfortunately, today the market is not yet operating at full capacity.

At the same time, the reconstruction of the country after the war may stimulate the growth of domestic cement consumption, which will create favorable conditions for cement exports from the EU to Ukraine.

In 2022, cement consumption fell by 60% compared to the pre-war 2021, but the situation improved in 2023 thanks to the partial recovery of the construction market and Government reconstruction programs. The forecast for 2024 is modest, but the cement industry is expected to continue to grow due to investments in infrastructure restoration, which will create additional demand for these products.

Cement exports to the EU went up in 2022-2023, reaching 1-1.2 million tons annually. The main sales markets remain the EU border countries, as the delivery of cement by sea for Ukraine is difficult due to military operations and the lack of appropriate infrastructure (our ports basically have no infrastructure for loading and unloading cement).

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers to the export of Ukrainian cement to the European market are:

- Logistical constraints. Ukraine exports cement to the EU exclusively by land routes, which limits the geography of sales and opportunities for expanding exports.
- Competition. Ukraine cannot compete with countries that have the ability to ship cement by sea, which lowers the cost of their products. In addition, the application of the Carbon Border Adjustment Mechanism (CBAM) may further complicate access for Ukrainian cement to the EU market.
- Environmental requirements. CBAM may negatively impact cement exports as it imposes an additional tax on CO_2 emissions, which reduces the competitiveness of Ukrainian products.

3. Ways to solve problems and the role (support) of the Government

To support the industry, the Government should take the following measures:

- Regulation of the application of CBAM: Promote and negotiate with the European Commission on the application of the declarative CBAM method for Ukrainian manufacturers for the period of martial law and several years after its termination. This will allow us to reduce the financial burden on Ukrainian companies and maintain their presence in the European market.

- Implementation of EU directives: Implementation of European directives into Ukrainian legislation regarding fuels that are biomass, blended fuels, or blended materials containing biomass. The calculation-based methodology applies to blended fuels or blended materials containing biomass, and the operator calculates separately the amount of CO_2 originating from biomass using the calculation-based methodology and subtracts this amount of CO_2 from the total CO_2 emissions. This is the methodology used in the EU under Directives 2003/87/EC and 96/61/EC. This will allow us to achieve climate goals regarding environmental and energy efficiency in cement production, be competitive with EU producers, and introduce environmentally friendly technologies and materials during the reconstruction of our country.

- Investment support: Introduction of subsidies, tax preferences, and other incentives for enterprises that invest in modernizing production facilities and reducing greenhouse gas emissions. In particular, measures to cut down the clinker content in cement and increase the use of alternative fuels with biomass content (biomass fuel, blended fuel, or blended material containing biomass) instead of fossil fuels are important.

4. Cooperation and strategic benefits for the EU. Negotiating positions

BResolving the CBAM issue is the most important negotiating point for the cement industry in Ukraine.

Another issue is the Ukrainian Government's initiative to negotiate with the European Commission regarding the application of the declarative CBAM method for Ukrainian producers for the period of martial law and several years after for the reconstruction period.

This regulation is based on Article 30(7) of the CBAM Regulation: "If an unforeseeable, exceptional, and unprovoked event occurs which is beyond the control of one or more third countries covered by the CBAM and which has devastating consequences for the economic and industrial infrastructure of that country or countries, the Commission shall assess the situation and submit a report to the European Parliament and the Council, accompanied, if necessary, by a legislative proposal, amending this Regulation, identifying the necessary temporary measures to overcome these exceptional circumstances." One approach, which can be proposed under this provision, could be to apply a declaratory approach to goods imported from Ukraine to the EU and subject to the CBAM. That is, in fact, it would be the same approach as for the rest of the countries, but without charging for emissions, which is critical for the specified sectors. The full-scale invasion of Ukraine by the russian federation may be considered as grounds for imposing temporary measures concerning Ukraine within the framework of the CBAM.

At the same time, the following mandatory stages must be completed to establish such temporary measures concerning Ukraine:

- A corresponding initiative by the Ukrainian Government to establish a special mechanism for applying CBAM to Ukraine;

- Assessment by the European Commission of the situation in which Ukraine and its importers find themselves, and preparation by the European Commission of a report on such situation;

- Preparation by the European Commission of a legislative proposal to amend the Regulation by establishing the necessary temporary measures for Ukraine;

- The submission by the European Commission of such a report and a legislative proposal to the European Parliament and the Council; and

- adoption by the European Parliament and the Council of the relevant legislative proposals to amend the Regulations by establishing the necessary temporary measures for Ukraine.





GLASSWARE PRODUCTION

Information sheet

COVID-19 pandemic and the outbreak of the full-scale war in 2022 had a significant negative impact on the packaging materials market. Some industries saw significant declines in production and demand for these products, and supply chains were disrupted due to restrictions on international transportation.

The largest number of enterprises ceased operations in the glass packaging industry, including one of the largest manufacturers of this product not only in Ukraine but also in Europe – PJSC Vetropack Gostomel Glass Factory.

According to the results of 2022, the capacity of the glass packaging market dropped by almost 40% compared to 2017.

The shutdown of enterprises and the reduction in production volumes also negatively affected the dynamics of sales of domestic products to the foreign markets. Thus, exports of glass containers from Ukraine decreased by 49% in 2022 and by 57% in 2023 compared to the record year for foreign deliveries in 2021, when the volume of sales of glass containers on foreign markets amounted to almost 420 thousand tons.

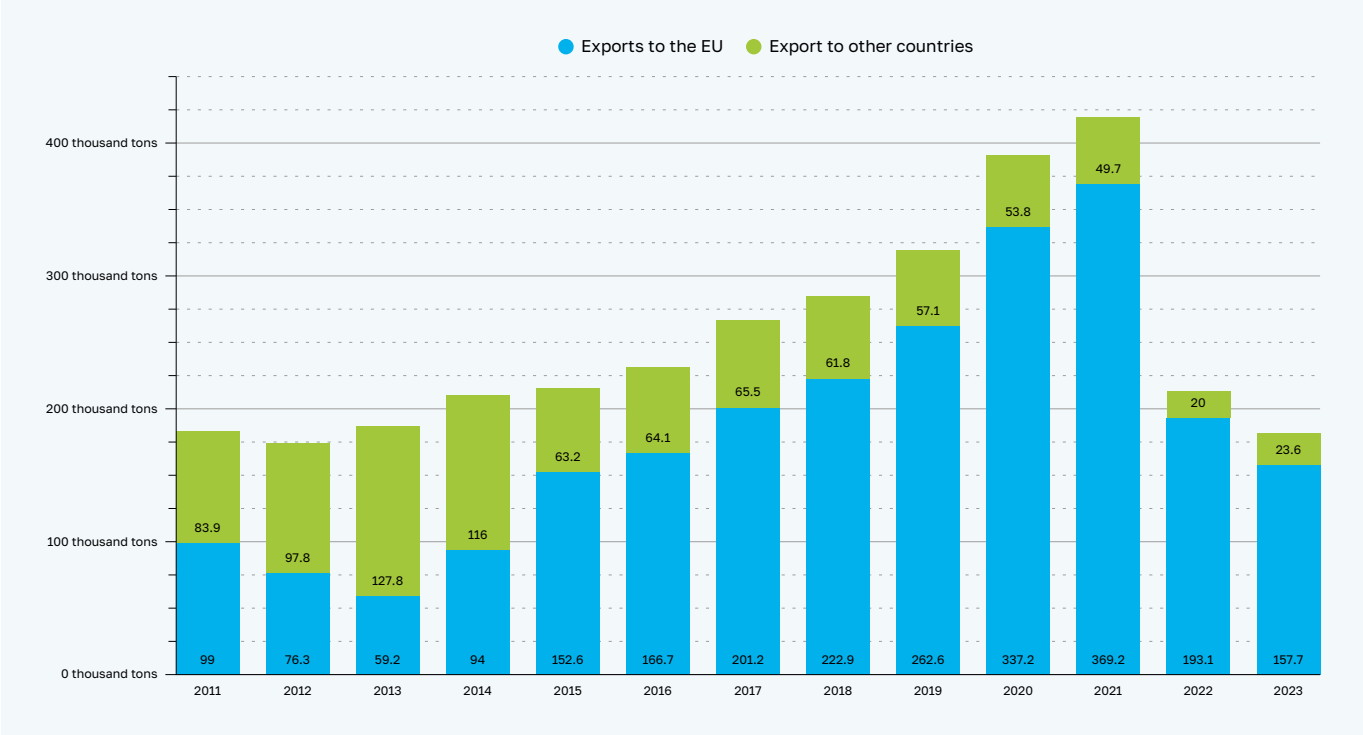


Fig. 2.23. Dynamics of exports of glass containers (HS 7010) from Ukraine to the EU and other countries of the world

During 2015-2023, the main consumers of Ukrainian glass containers were the European Union countries. In 2021, a record amount of domestically produced glass containers was sold to the EU market in the last 13 years, amounting to 369 thousand tons (Fig. 2.23).

According to the results of 2022, the share of exports of domestic products to the EU in total Ukrainian exports amounted to almost 91%, in 2023 – 87%. The main importing countries were Poland, Romania, and Italy.

In 2023, Ukraine ranked fourth in total imports of glass containers by EU countries. The share of Ukrainian products in total imports was 11.8% (157.7 thousand tons). Other major supplying countries were:

1. **Turkey with a share of 22.4% (299.3 thousand tons);**
2. **Great Britain – 18.3% (244 thousand tons);**
3. **China – 12.7% (170 thousand tons); and**
4. **Moldova – 6.6% (88 thousand tons).**

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

After the start of the full-scale invasion of Ukraine, the glass packaging industry has experienced a considerable drop in domestic consumption. This was conditioned by the loss of territories used to grow agricultural products that were traditionally packaged in glass containers. There is also a shift of consumers to plastic and aluminum packaging containers, especially in segments such as beer and soft drinks. As a result, a further decline in domestic demand for glass packaging is forecast.

The EU market, taking into account the logistical factors, remains the main one for Ukrainian glass packaging manufacturers, and national producers intend to expand their presence in this market.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main challenges for increasing exports to the EU market are:

- Logistics costs. When Ukrainian ports resume operation in a safe mode, it is possible to predict a slight expansion of the geography of supplies, but as of today, shipments by sea are carried out mainly through Polish ports, which leads to a significant rise in the price of our products and, accordingly, the number of such supplies is minimal.
- Competition. First of all, one should consider the risks associated with increasing glass exports from China to the EU.

3. Ways to solve problems and the role (support) of the Government

To increase the presence of Ukrainian glass packaging manufacturers on the EU market, the Government should:

- Resolve border issues. In particular, border delays lead to untimely contract execution and loss of trust among European partners.
- Change tax and energy regulations: Unforeseen changes in tax policy and energy regulation could significantly increase the cost of production, jeopardizing the fulfillment of yearly contracts with European consumers.

4. Cooperation and strategic benefits for the EU. Negotiating positions

It is important for the EU to maintain a balanced internal market for glass by providing more choice in the range of products. One of the proposals is that the EU could introduce a scheme to refund part of the costs of glass packaging materials from Ukraine, which would stimulate exports and help balance the EU internal market.





CERAMICS PRODUCTION

Information sheet

According to experts, the market for ceramic tiles and sanitary ware in Ukraine is at a stage of maturity, where it will remain for about 10 more years. Before the full-scale invasion, the main trend in the ceramic sector was a rapid reduction in imports due to the development of the domestic industry. Today, Ukrainian-made products are not inferior to European counterparts, since their competitiveness is ensured by the use of innovative developments and high-quality raw materials. It is known that Ukrainian red clay, kaolin, and sand are highly valued in Europe. In recent years, tile production from our own raw materials, but using advanced Italian equipment and involving foreign designers, has become extremely relevant. This approach has allowed us to offer customers high-quality products at an affordable price.

In 2022, there was a decline in the market for these products, characterized by the suspension of production, a decrease in consumption volumes, and the loss of target markets and product stocks in warehouses due to the occupation of territories and military actions. For example, the capacity of the Ukrainian ceramic tile market dropped by more than 57% in 2022 compared to 2021.

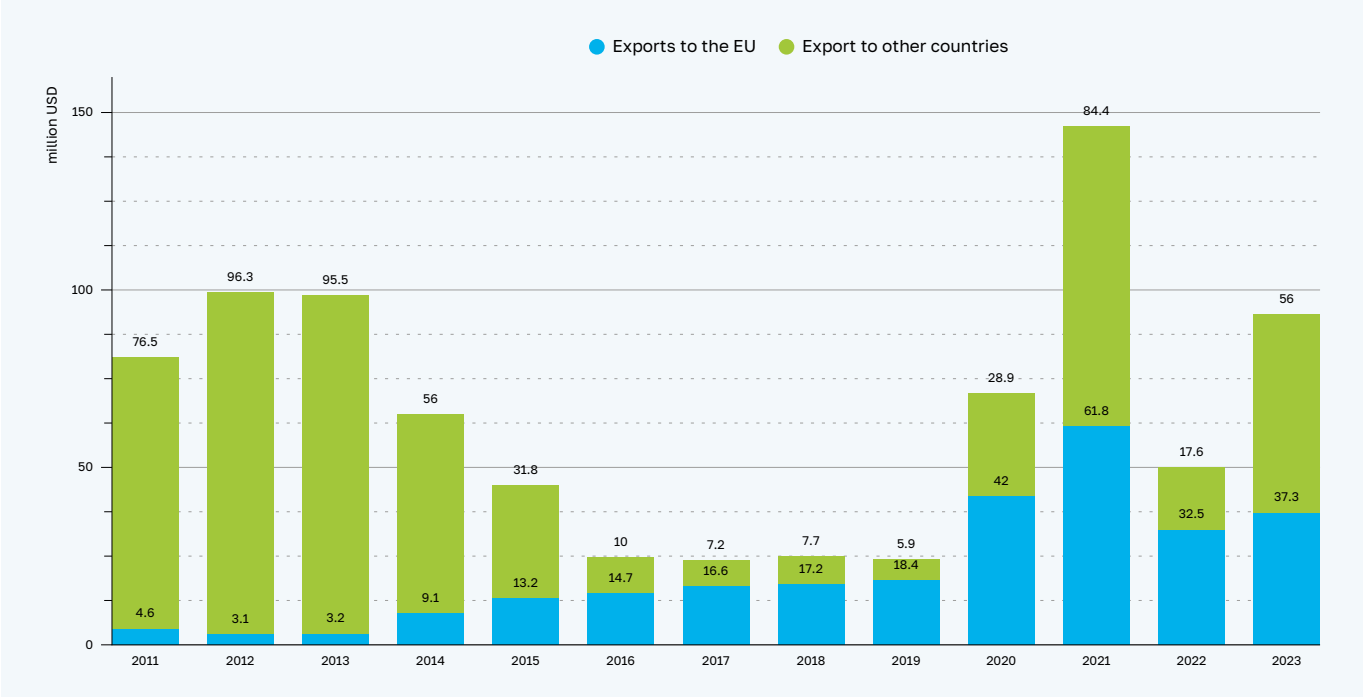


Fig. 2.24. Dynamics of exports of ceramic tiles and ceramic sanitary ware (HS 6907, 6910) from Ukraine to the EU and other countries of the world

The year of 2023 demonstrated certain market recovery, but pre-war indicators are not expected to be achieved until 2026-2027.

Until 2015, the main foreign market for Ukrainian ceramic tiles and sanitary ware was the russian federation, whose share in total Ukrainian exports amounted to 64% (63.5 million USD) according to the results of 2013.

Since 2014, there has been a decline in sales of ceramic products to foreign markets, but the volume and share of exports to European countries are gradually increasing. In 2021, Ukraine exported a record number of ceramic tiles and ceramic sanitary ware to EU countries worth 61.8 million USD, which is 4.7 times more than in 2015.

After a sharp drop in export volumes in 2022, the production and sales of ceramic products, both in the domestic and foreign markets, began to recover and grow in 2023.

At the end of 2023, the volume of sales to foreign markets went up by 86.4% compared to the previous year, from 50 million USD to 93.3 million USD.

The main importer of Ukrainian tiles and sanitary ware in 2023 was Poland, purchasing products worth 24.6 million USD, representing 26.4% of the total export of these goods from Ukraine. Also, the main consumers were Moldova, Romania, the United Kingdom, and Germany (Fig. 2.24).

In 2023, the share of imports of ceramic tiles and sanitary ware from Ukraine in total EU imports was about 2.5%, worth 37.3 million USD.

The undisputed leaders among the countries supplying these products to the European Union are:

1. **Turkey with a share of 29% (441.6 million USD);**
2. **China – 22% (334.6 million USD); and**
3. **India – 20% (305.8 million USD).**

Position of domestic producers





1. State of the industry and prospects for exports to the European Union market

Tile consumption in Ukraine has fallen from about 50 million m2 to 30 million m2 per year. Manufacturers in the industry have excess capacity. Domestic consumption depends on the security situation, and if it does not change, consumption will remain at the level of 30 million m2. Production will partially recover due to the resumption of exports.

Export opportunities are recovering with the stabilization of logistics capabilities; however, container transportation to expensive and distant markets (Great Britain, the USA, Arab countries, Israel, etc.) remains difficult for Ukrainian tile exports. The exports will grow primarily at the expense of Central Europe.

Ceramic production in Ukraine exceeds domestic consumption, which makes exports a key factor for the further development of the industry. Today, each of the operating plants can produce up to 10 million m2 of ceramic tiles per year. With domestic consumption of 25-30 million m2 and subject to partial reconstruction and the return of the population, the volume of exports should be at least 30 million m2. And today this figure is about 10-15 million m2.

Export dynamics, according to manufacturers' forecasts, will continue to grow every year, provided that the front line is stabilized. The main geography of exports will still include the closest neighbors in Europe: Moldova, Hungary, Slovakia, the Czech Republic, Poland, Bulgaria, and the Baltic countries. Deliveries to markets located more than 2000 km away, including the USA, Canada, the Middle East, the UK, Cyprus, and Ireland, will have a smaller share due to logistical difficulties and port operation restrictions, as well as the competitive advantage of world leaders in ceramic exports, such as Turkey, India, China, and Spain.

The European market should become the main one for Ukrainian manufacturers due to the existing protective measures that limit Asian expansion, in particular tariffs and restrictions on products from China and India. This opens up favorable conditions for Ukraine to expand its presence in the EU. However, competition in Europe is created not only by local manufacturers, but also by suppliers from the Balkan countries that are not members of the EU, as well as world leaders: Turkey, China, and India, which have advantages in the form of access to cheap energy resources, labor, raw materials, and technologies.

The main task of Ukrainian manufacturers remains the development of existing markets, maximum penetration into them and the search for «blue oceans» - markets with a low level of competition, where they can use their unique advantages.

2. Main problems and barriers to entering (or expanding presence in) the European market

- High competition with local manufacturers and suppliers from other countries. The European market is saturated with local manufacturers, as well as importers from Turkey, China, and India, who have access to cheap energy, labor, and technologies.
- Logistical issues: Complicated access to ports and high logistics costs significantly affect the ability of Ukrainian producers to compete in distant markets.
- Skilled Labor Shortage: Starting in 2023, the human resources problem is becoming increasingly urgent for Ukrainian manufacturers. The war led to the mobilization of a substantial part of the labor force, which creates difficulties

in staffing production facilities with qualified workers.

3. Ways to solve problems and the role (support) of the Government

For the successful development of exports and increased presence in the EU market, the Ukrainian Government is recommended to ensure the following:

- Introduction of duty-free exports: This will facilitate the entry of Ukrainian producers into the EU market in wartime conditions. It is possible to introduce quotas, but with the fulfillment of the required volumes (not less than 30 million m2) of exports for Ukrainian producers.
- Support for participation in international exhibitions: Providing preferential or free conditions for the participation of Ukrainian manufacturers in exhibitions and conferences.
- Government support programs, such as interest-free loans for production modernization, compensation for energy costs, reduction of VAT on raw materials used for domestic production, and increase in the percentage of employee reservation.
- Improving cooperation with trade representatives: Strengthening the work of Ukrainian trade representatives at EU embassies to establish effective communication and facilitate export activities.
- Focusing ECA's work on insuring export receivables at a reasonable cost that banks would accept as collateral (similar to Sace and Italy).

4. Cooperation and strategic benefits for the EU. Negotiating positions

The EU market is strategically important for Ukrainian producers, as European countries are imposing restrictions on products from Asia (China and India), which creates favorable conditions for Ukrainian exports.

At the same time, Ukraine can become both a consumer of technologies for the development of its own production and a production site for European companies, which will be able to locate their facilities in our country and build factories and logistics hubs, having access to Ukrainian ports and local specialists. This will not only improve the quality of Ukrainian products, but also contribute to the boost in mutual trade and investment.



METALLURGICAL INDUSTRY



Information sheet

The metallurgical industry of Ukraine undoubtedly suffered the most devastating consequences from the large-scale invasion of the russian federation in 2022. The destruction of the largest metallurgical enterprises of Ukraine – Azovstal and Illich Iron and Steel Works in Mariupol – together with the shelling of energy infrastructure (which resulted in problems with the energy supply of the industry), the unfavorable global situation, and the blockade of sea trade routes led to a drop in the industrial production index in this industry (ZED CODE 24–25) by 62.4% in 2022. Among other things, according to the GMK Center, the manufacture of rolled products in Ukraine in 2022 went down by 72.0%, steel smelting – by 70.7%, and pig iron production – by 69.8%.

The key foreign market for metallurgical products' sales was the EU countries, which accounted for 82% of Ukrainian ferrous metal exports in 2023. At the same time, logistics problems significantly complicated and raised the cost of deliveries to foreign markets, which in turn increased the final cost of exported products and negatively affected the competitiveness of domestic metallurgists in foreign markets. As a result, the industry's enterprises worked at low capacity and temporarily stopped some of them. Exports of ferrous metals to the EU countries in 2022–2023 dropped for most commodity categories (Fig. 2.25).

In particular, according to Eurostat, supplies of semi-finished

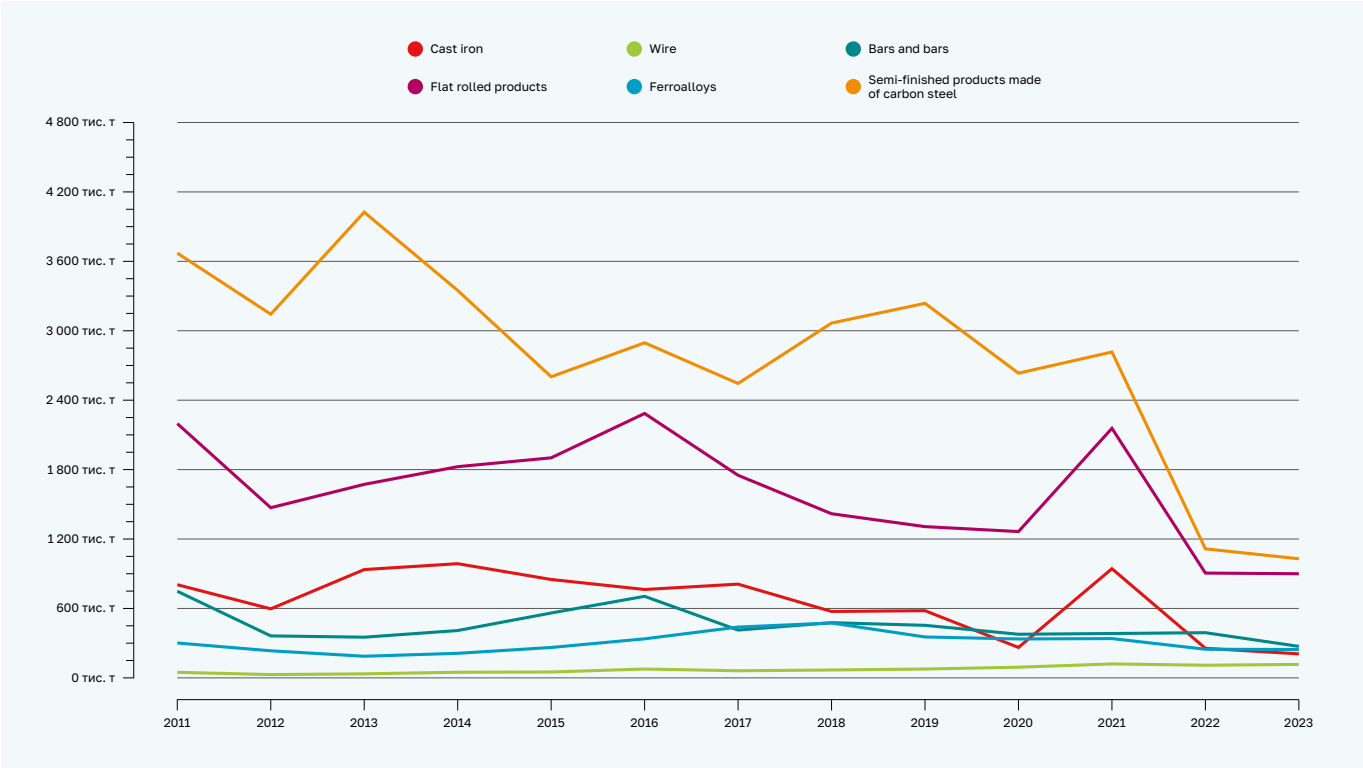


Fig. 2.25. Dynamics of exports of ferrous metals (HS 72) from Ukraine to the EU by main commodity categories

carbon steel products from Ukraine to the EU in 2022–2023 decreased by 63.5% compared to 2021 (from 2.8 million tons to 1.0 million tons), flat rolled products – by 58.3% (from 2.16 million tons to 0.9 million tons), cast iron – by 78% (from 943.6 thousand tons to 207.5 thousand tons), ferroalloys – by 27.8% (from 339.7 thousand tons to 245.1 thousand tons), and bars and rods – by 29.0% (from 383.3 thousand tons to 272.2 thousand tons). The drop in exports of ferrous metal wire to the EU against this background was insignificant and amounted to only 3.5%, from 120.5 thousand tons to 116.3 thousand tons. In general, due to the prolonged recession in the metallurgical industry of Ukraine, the physical volumes of domestic exports of ferrous metals and articles thereof went down significantly (Fig. 2.26).

According to the State Statistics Service of Ukraine, the index of physical volumes of exports of goods under UKTZED code 72 "Ferrous metals" during 2011–2021 dropped by 40.3%, and under code 73 "Ferrous metal products" – by 63.3%. The consequences of the shock caused by the large-scale invasion led to the fact that by the end of 2023, exports of ferrous metals from Ukraine in physical volumes amounted to only 18.1% of the 2011 level, and of ferrous metal products – 12.6%.

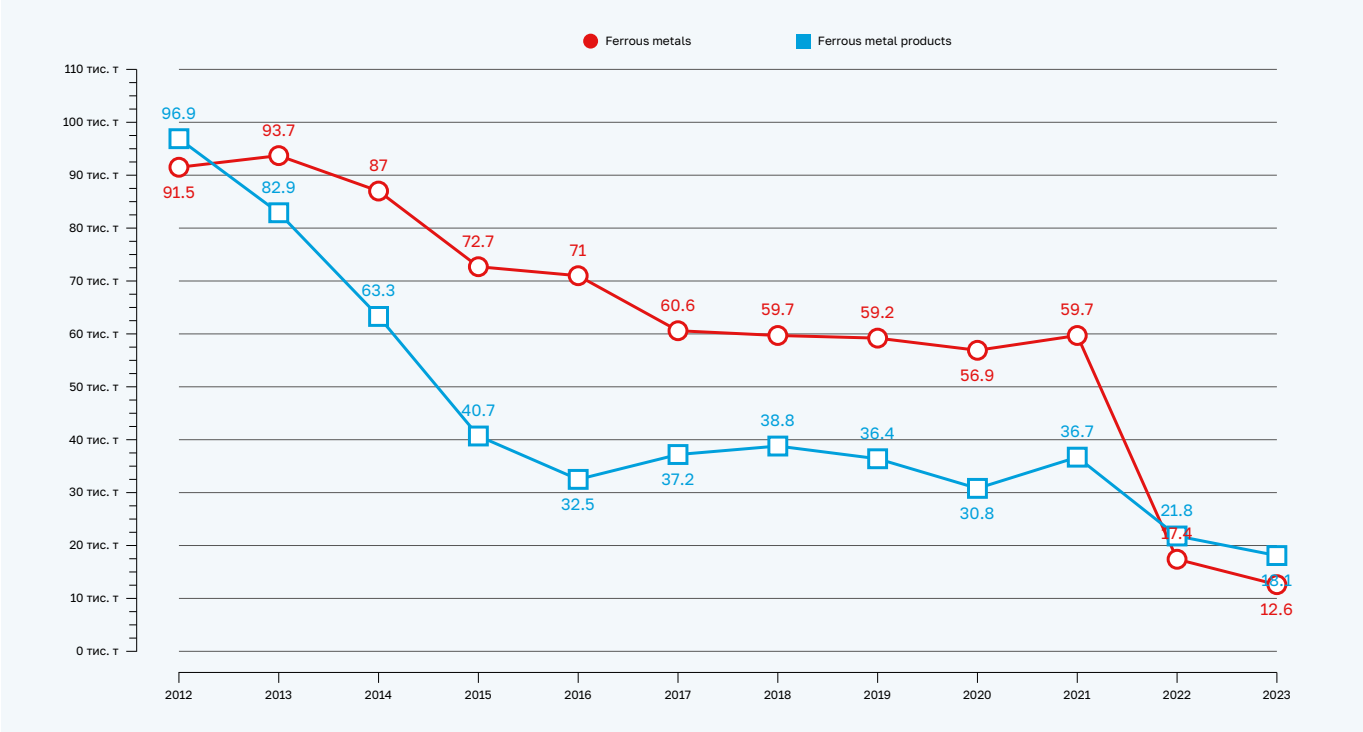


Fig. 2.26. Indices of physical volumes of exports from Ukraine of ferrous metals (HS 72) and articles thereof (HS 73) (2011=100)

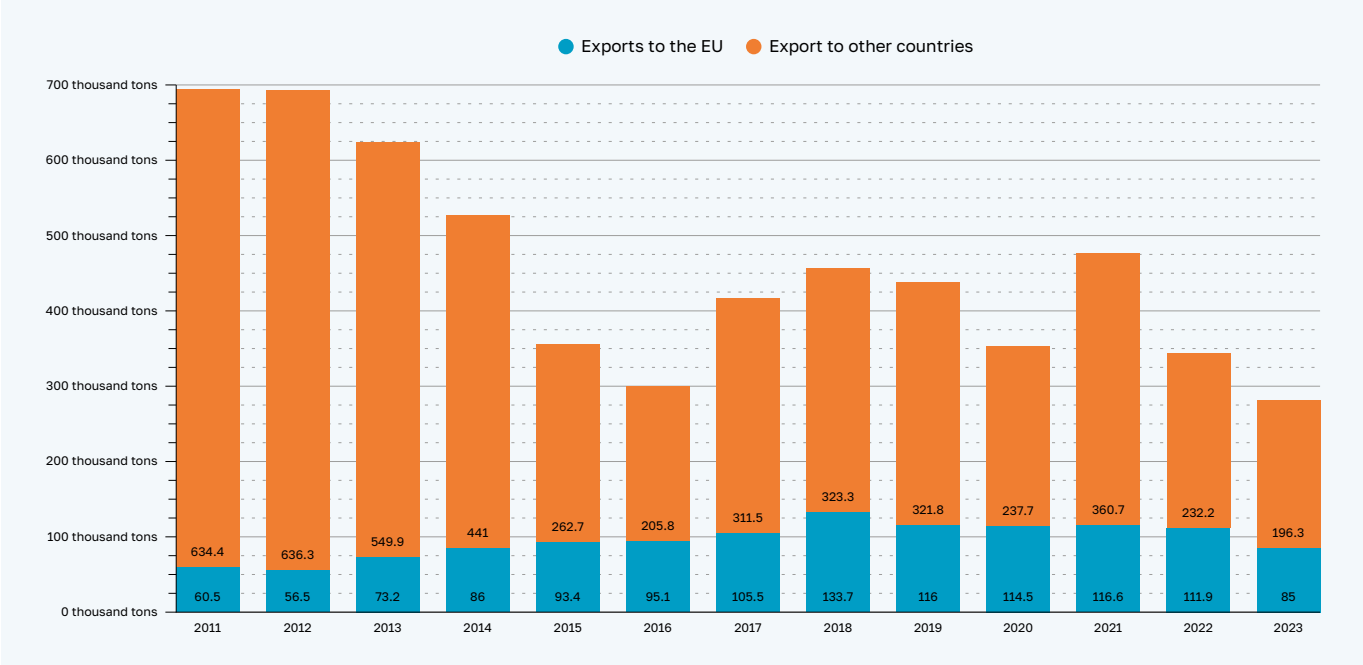


Fig. 2.27. Dynamics of exports from Ukraine of seamless hollow pipes of ferrous metals (HS 7304) to the EU and other countries of the world

In value terms, foreign exchange earnings from Ukrainian exports of ferrous metals and articles thereof in 2023 amounted to 3.5 billion USD, which was only 9.8% of total exports of goods. For comparison, in 2021, the corresponding earnings amounted to 14.4 billion USD (21.8% in the structure of commodity exports), in 2011 – 21.3 billion USD (31.1%). In 2023, a deficit was recorded in trade in ferrous metal products for the first time: the value of imports under UKTZED code 73 exceeded exports by 24.6 million USD.

Among all types of ferrous metal products, the basis of Ukrainian exports to the EU and in general is seamless pipes. Over the past decade, their exports from Ukraine first dropped from 694.8 thousand tons in 2011 to 301.0 thousand tons in 2016 and then gradually increased to 477.3 thousand tons in 2021. In the period 2022–2023, the physical volumes of Ukrainian exports of seamless pipes fell by 41.1% compared to 2021 – to 281.2 thousand tons. This year, there is some recovery in supplies. In January–May 2024, Ukrainian exports of seamless hollow pipes from ferrous metals reached 187.4 thousand tons, which is 35.4% more than in the same period of the previous year (Fig. 2.27).

It should be noted that the volume of exports of seamless pipes from Ukraine to the EU during 2011–2018 continuously grew, increasing over the specified period from 60.5 thousand to 133.7 thousand tons (by 2.2 times). During 2019–2022, it was in the range of 111.9–116.6 thousand tons, but in 2023 it went down to 85.0 thousand tons. Thus, if in 2011–2012 the EU's share in pipe exports from Ukraine did not exceed 8.2%, then by the end of 2022 it reached 32.5%.

Ukrainian exports to the EU of ropes, cables, plaited bands, and other similar ferrous metal products are also developing dynamically. In particular, during 2013–2023, they increased tenfold in physical volumes – from 1.13 to 11.29 thousand tons, and the share of EU countries in the export structure grew accordingly from 6.4% to 76.7% (Fig. 2.28).

About half of the EU demand for railway wheels and wheelsets for freight railcars is met through imports from third countries. Ukraine remains the key and, in some niches, the only alternative supplier of these products to the European market, with a share of about 50% in this segment.

According to Eurostat, in 2023 EU imports from third countries under UKTZED commodity group 8607 19 "Axles, assembled (wheel sets) or not assembled; wheels and parts thereof" amounted to 121.2 thousand tons, of which 44.8 thousand tons (37.0%) came from Ukraine. Other significant suppliers of the relevant products to the EU were China – 35.4 thousand tons (29.2%), Turkey – 10.0 thousand tons (8.3%), Serbia – 8.5 thousand tons (7.0%), and russia – 6.1 thousand tons (5.0%).

The 49.6% decline in railway product manufacturing in 2022 amid the large-scale invasion negatively affected Ukrainian exports of railway wheels and wheelsets, which dropped by 53.3%, from 151.7 thousand tons to 70.9 thousand tons (UKTZED code 8607 19). However, the decrease in export volumes occurred mainly at the expense of non-EU countries, so deliveries to the European market went down by only 22.6%, from 58.5 thousand tons to 45.3 thousand tons, which, however, caused a temporary shortage of railway wheels in this market.

The EU's share in the geographical structure of Ukrainian exports of products under code 8607 19 reached 63.9% in 2022. For comparison, back in 2012, EU countries accounted for only 11.2% of the corresponding exports (Fig. 2.29).

In 2023, supplies of railway wheels and wheelsets from Ukraine to the EU remained at approximately the same level as in 2022, while exports to other countries began to gradually recover. In January-May 2024, Ukrainian exports under code 8607 19 amounted to 40.8 thousand tons (of which 58.4% went to the EU), which is 36.9% more than in the same period of the previous year.

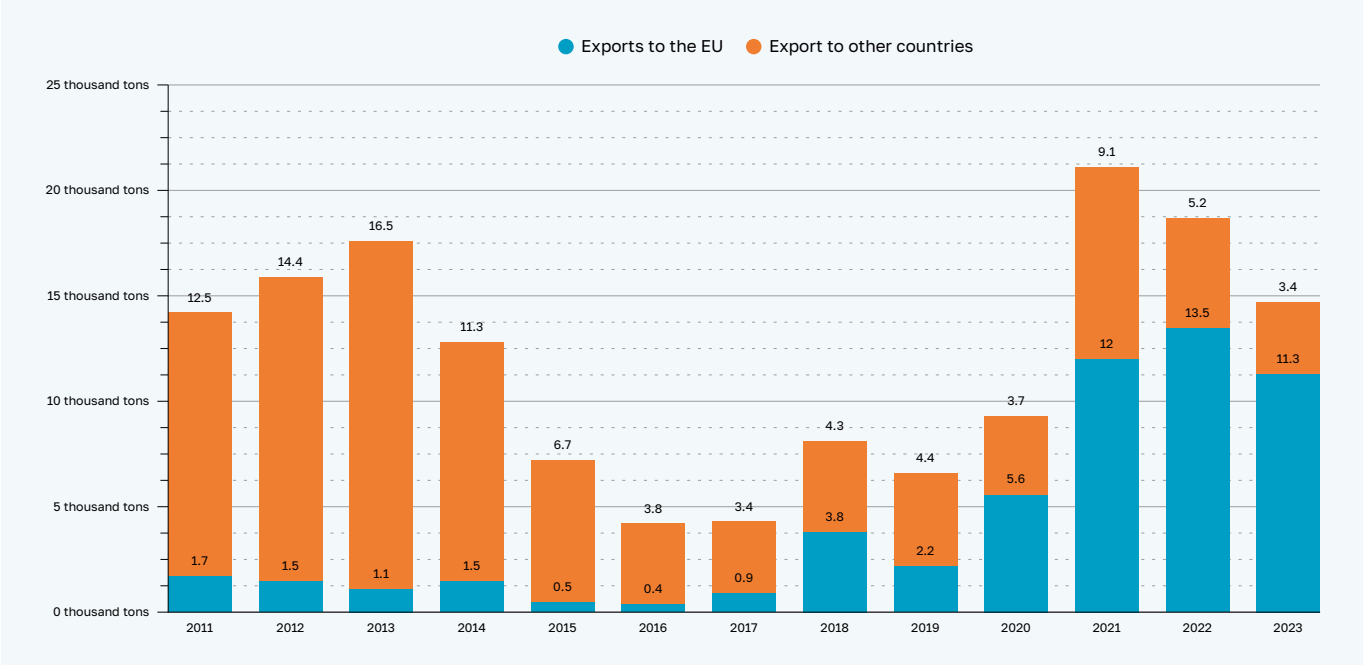


Fig. 2.28. Dynamics of exports of cables, plaited bands, and other similar products made of ferrous metals (HS 7312) from Ukraine to the EU and the rest of the world

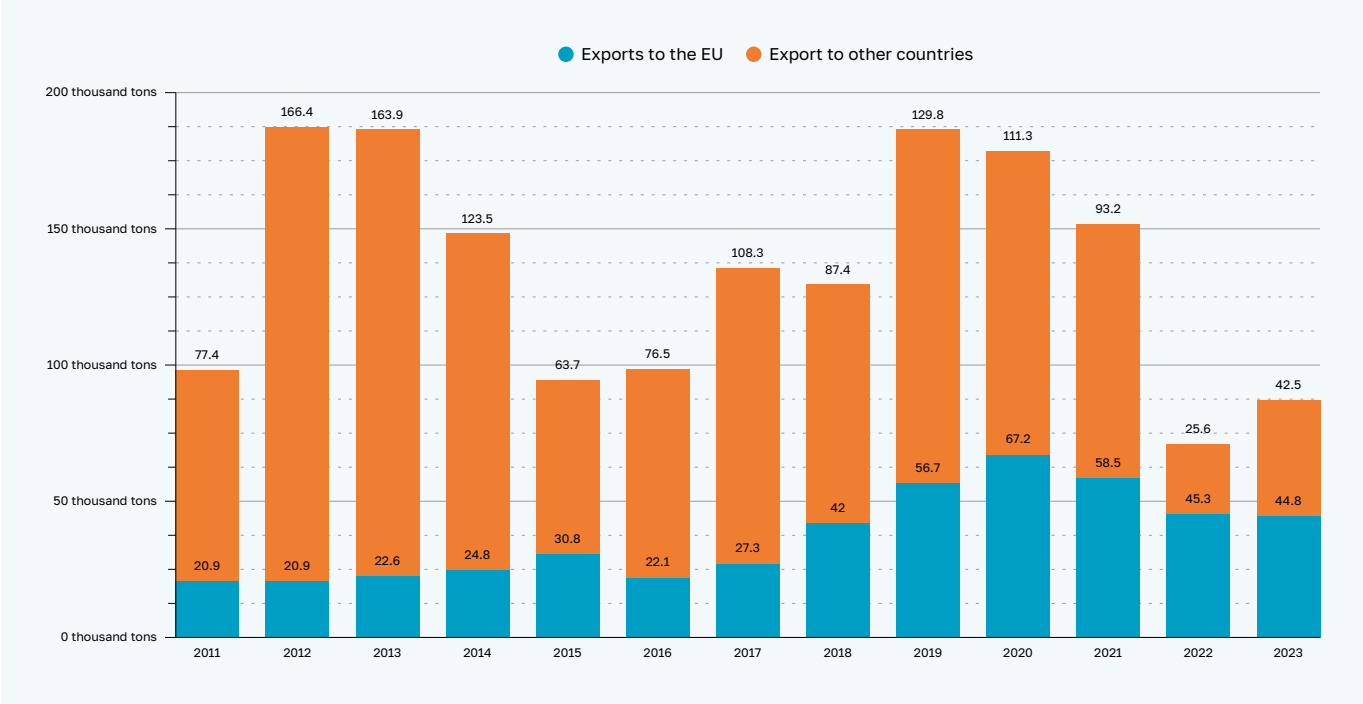


Fig. 2.29. Dynamics of exports from Ukraine of wheelsets and other parts of railway wagon bogies (HS 8607 19) to the EU and other countries of the world

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The Ukrainian metallurgical industry suffered huge losses due to the war. According to Ukrainian companies representing the iron and steel industry, domestic consumption is likely to increase during the post-war reconstruction of the country. At the same time, exports to the EU market will remain an important factor in the economic stability of the vast majority of domestic manufacturers of metallurgical products. One of the key tasks for preserving the presence of Ukrainian companies on the European market is to maintain the regime of full liberalization for access of Ukrainian metallurgical products to EU markets for the period of the negotiation process. Of particular importance is the non-application of EU mechanisms – steel safeguards and anti-dumping duties – on imports from Ukraine after the expiry of the provisional measures (EU A TM) in 2025 and the postponement of the application of the financial elements of the CBAM mechanism from 2026.

It should be mentioned that a significant positive factor for Ukrainian producers of the metallurgical industry was the abolition of tariff quotas and anti-dumping measures for Ukrainian products. In turn, sanctions against russian metallurgy had a positive impact on Ukrainian exports, in particular to the markets of Eastern Europe and the Baltics, where russian products previously dominated. However, the specifics of the EU sanctions legislation allow russian companies to continue to supply certain types of products to the EU.

2. Main problems and barriers to entering (or expanding presence in) the European market

Although new market opportunities have opened up for metallurgists, the ability to quickly realize them is still limited due to a lack of investment in production facilities' modernization, logistics problems, and destroyed infrastructure.

The EU market imposes high environmental requirements on products, which creates challenges for Ukrainian iron and steel companies. The biggest barrier to the export of Ukrainian products will be the CBAM mechanism, which actually imposes a «tax» on carbon emissions on imported products. Since most Ukrainian metallurgical companies do not have the necessary investments in «green» technologies, they risk becoming uncompetitive after the end of the transition period in 2026. Actually, in conditions of war, iron and steel companies cannot afford to invest heavily in modernization, which exacerbates the problem.

In addition to environmental requirements, Ukrainian metallurgical companies face logistical challenges due to damaged infrastructure and power outages. For companies such as LLC Dniprometiz TAS, which meets all EU standards for product quality, the problem lies in delivery speed and pricing.

3. Ways to solve problems and the role (support) of the Government

To address these problems, the Ukrainian Government should focus on several areas:

- Infrastructure investments: Rehabilitation of railways and port routes, as well as energy infrastructure to ensure stable energy supply to metallurgical enterprises.
- Development of the domestic consumption market, including for the purpose of supporting national production.
- Modernization of production facilities: Government subsidy or tax incentive programs should stimulate the transition of metallurgical enterprises to environmentally friendly technologies.
- Financial support: Providing access to soft loans for the restoration of metallurgical companies, particularly in regions affected by hostilities.
- Localization of production: Creating conditions for increasing localization of production, especially in recovery projects, which will contribute to higher business activity and the creation of new jobs.

The state should also ensure personnel development, as the shortage of personnel is becoming a limiting factor for manufacturers. In addition, it is necessary to promote the restoration of energy supply, reduce electricity tariffs, and create programs to stimulate investment in the modernization of production facilities.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Integration into the European Emissions Trading System (EU ETS)

- Gradual integration: Negotiations need to agree on a sufficient transition period for Ukrainian businesses to avoid a sharp increase in costs and loss of competitiveness.
- Financial and technical support: Ukraine should insist on financial and technical assistance to modernize national production facilities and reduce their carbon footprint, which will be an important element in negotiations on integration to EU ETS.

Maintaining favorable conditions for exports

End of autonomous trading measures (EU ATM): After the end of the EU ATM validity in 2025, it is necessary to achieve non-application of EU steel safeguards to Ukrainian products and avoid the introduction of anti-dumping measures that could limit the export of Ukrainian metallurgical products to the EU.

Cooperation with European partners

- Technological cooperation: Conclusion of agreements with European companies to obtain technological assistance and implement «green» technologies, which will contribute to the modernization of Ukrainian enterprises.
- Attracting investment: Ukraine should actively attract European investments to restore production capacities and modernize infrastructure.
- Educational programs: Cooperation in the field of vocational training to educate the personnel who will work with environmentally friendly technologies.
- Development of joint projects in the field of «green metallurgy», in particular in terms of establishing the production of high-quality iron ore raw materials in Ukraine and their supply to metallurgical enterprises in EU countries.
- Gradual involvement of Ukrainian companies in joint work in the EU industry associations.



MACHINERY AND EQUIPMENT MANUFACTURING



AGRICULTURAL MACHINERY ENGINEERING

Information sheet

In recent years, the domestic sector of agricultural machinery engineering has been shaped by a number of factors, the main ones of which before the invasion were the dynamics of the development of crop and livestock production, the strengthening of the national currency in 2019–2020 (which promoted imports and restrained exports), the COVID-19 pandemic, the structural features of the sector, and the development trends of Ukrainian mechanical engineering in general.

In fact, the industrial production index for ZED CODE 28.30 «Manufacture of machinery and equipment for agriculture and forestry» in Ukraine has a long-term downward trend, and after the large-scale invasion, it collapsed much more than the manufacturing industry as a whole and continued to fall in 2023.

In 2022, a total of 100 enterprises were shut down or destroyed in the industry (626 enterprises operated before the invasion). The number of employees in the industry decreased by almost 4.8 thousand people (-28.6%); in value terms, the volume of products sold went down to UAH 12.3 billion, which, taking into account the inflation factor, indicates an almost twofold drop in real volumes.

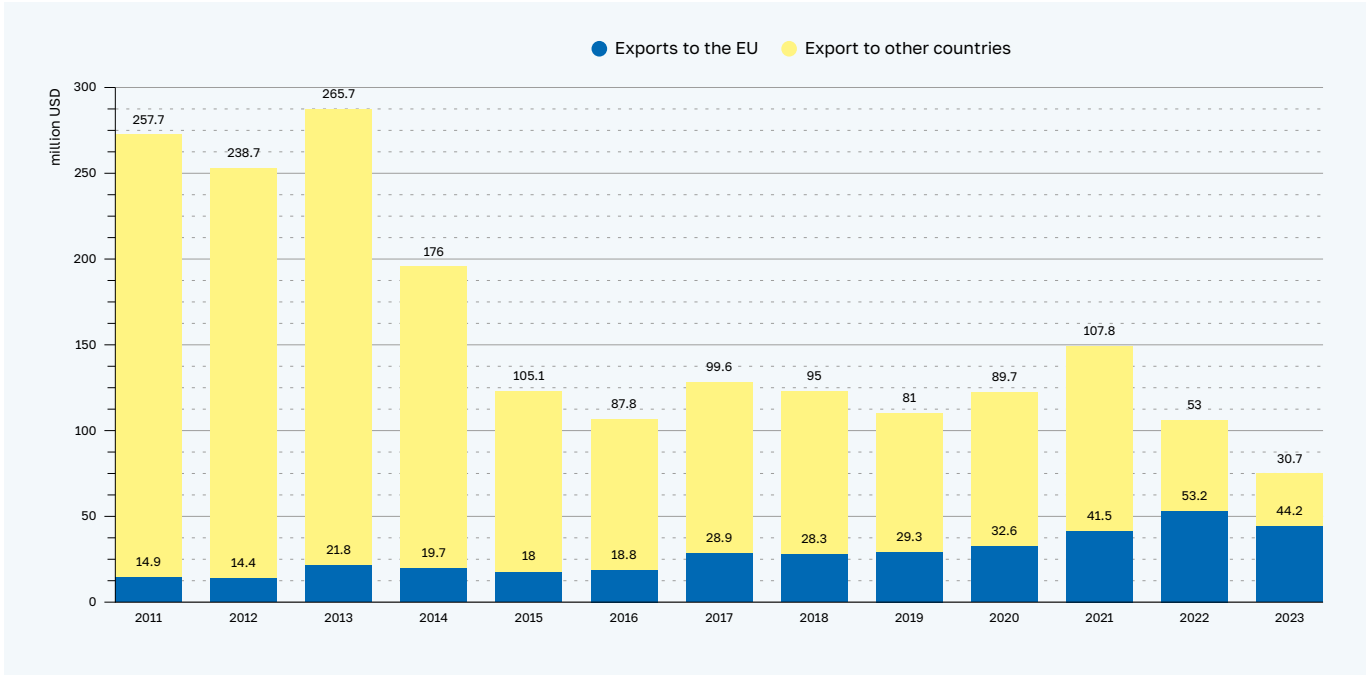


Fig. 2.30. Dynamics of exports of agricultural machinery (HS 8428, 8432, 8433, 8434, 8435, 8436, and 8701) from Ukraine to the EU and other countries of the world

The situation in the industry has become even more complicated, as the implementation of the state support program for agricultural producers, which had been in effect from June 2017 until the start of the large-scale invasion in early 2022, was temporarily suspended.

The state program provided for the support for agricultural producers through partial compensation for the cost of domestically manufactured agricultural machinery and equipment. Farming companies had the possibility to receive the 25% compensation of the cost of purchased agricultural machinery with a degree of localization of 60% for simple equipment and 35–55% for more sophisticated self-propelled machinery.

During the period of the program's effect, the share of domestic products in the formation of the national market of agricultural machinery and equipment (which fell under its scope) almost doubled – from 16.8% in 2016 to 33.0% in 2019. The implementation of this program contributed to the creation of 5 thousand additional jobs in the field of agricultural machinery engineering and the allocation of about UAH 2 billion in capital investments for the technological re-equipment of the relevant production facilities.

In March 2024, the program for partial compensation for the cost of agricultural machinery was launched again after being suspended in 2022–2023.

Considering foreign economic activity in the field of agricultural machinery engineering, it is worth noting that the Ukrainian agricultural sector remains largely focused on the import of mechanical engineering products. During 2016–2021, domestic exports of agricultural machinery engineering products ranged from 106.6 million USD to 149.3 million USD, while imports were approximately ten times larger and amounted to 1,235.6-1,796.8 million USD (Fig. 2.30).

The structure of domestic exports of agricultural machinery engineering products is dominated by equipment and accessories (plows, mowers, harrows, seeders, and fertilizer spreaders), the share of which in deliveries to foreign markets in 2023 was 38%. Elevator equipment and harvesting equipment (primarily mowers and rapeseed harvesting equipment) also have a significant share, and their shares in exports during the specified period were 27% and 18%, respectively.

It is worth indicating that in recent years, the volume of sales of Ukrainian agricultural machinery to the European market has increased. In particular, according to the results of 2022, the value of exports to the EU market amounted to 53.2 million USD, which is 2.8 times more than in 2016 (18.8 million USD).

In 2023, the main importers of domestic agricultural machinery among EU countries were: Poland (10.4 million USD), Germany (7.2 million USD), and Romania (6.7 million USD),

Farmers in Moldova, Lithuania, Bulgaria, and Georgia are also well acquainted with Ukrainian machinery and equipment. Tractors and attachments manufactured in Ukraine are also exported to Turkey, harvesting equipment is supplied to France, and grain elevator equipment is delivered to China, the USA, and Israel.

However, despite the positive trend of boosting supplies to the European Union market, Ukraine's share in the total EU import of agricultural machinery is negligible – 0.4% (according to the results of 2023). The main foreign suppliers of this machinery to the European market remain manufacturers from China and the USA.

Position of domestic producers

Association of Manufacturing Enterprises of Machinery and Equipment for Agroindustrial Complex "Ukragromash"

ELVORTI SINCE 1874

1. State of the industry and prospects for exports to the European Union market

Export of Ukrainian origin agricultural machinery to the European Union market has significant prospects, but is accompanied by certain challenges. The Ukrainian agricultural sector, as one of the main drivers of the economy, demonstrates a constant demand for agricultural machinery, which creates the potential for building up the production, and as a result, for increasing supplies to foreign markets. At the same time, the deepening of trade relations between Ukraine and the EU opens up new opportunities for Ukrainian manufacturers on the European market. However, the compliance of products with EU requirements is a key factor for expanding their presence on the market.

Although sales to the EU market fell by 36% in 2023 compared to 2022, there was a 13% growth compared to 2021. This indicates that, despite some short-term difficulties, the market is still quite promising.

The European market is huge, with over 9.1 million farms and 98 million hectares of arable land. The EU agricultural machinery production volume is forecast to be worth USD 48.6 billion in 2024, with an expected boost to USD 57.2 billion by 2029.

The EU market is highly competitive, with over 200 established agricultural machinery manufacturers dominating the market. However, Ukrainian manufacturers can compete there through innovation, competitive pricing, and high product quality. Rapid adaptation to market conditions and the introduction of new technologies allows Ukrainian companies to effectively respond to market needs.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems for Ukrainian agricultural machinery manufacturers are related to:

- The lack of appropriate subsidies or preferential loans for Ukrainian manufacturers seeking to enter the European market;
- High tax burden on the relevant manufacturers;
- Insufficient level of investment in research and development in the field of agricultural machinery, which reduces opportunities for improving the quality and functionality of products;
- Limited opportunities to participate in international exhibitions and fairs, which reduces the potential for expanding sales markets and affects brand recognition; and
- Strict requirements for the return of foreign exchange earnings, which create additional financial difficulties for exporters.

3. Ways to solve problems and the role (support) of the Government

To ramp up the production of agricultural machinery in Ukraine and increase the presence of Ukrainian manufacturers in foreign markets, the Government can take the following measures:

Financial support: Introducing subsidy programs or preferential loans for agricultural machinery manufacturers, which will help reduce the costs of production and modernization of equipment. Providing loans or financial instruments that will help enterprises manage currency flows and ensure the return of revenue within the established period.

Tax incentives: Providing tax incentives and discounts on the import of components for machinery manufacturing, which can cut down the cost of production.

Investment in innovation: Support for research and development in the field of agricultural machinery, including through grants and Government innovation support programs.

Promotion in international markets: Organization of exhibitions, fairs, and business missions abroad to find new partners and customers. Financial support for participation in international exhibitions and fairs, namely compensation for expenses. The Government can partially or fully compensate for the costs of participation in international exhibitions and fairs for Ukrainian manufacturers.

Flexibility in regulation: Establishing more flexible conditions for the return of foreign exchange earnings, taking into account the specifics of companies' activities and market conditions.

Preferential conditions: Introduction of preferential conditions for enterprises exporting agricultural machinery – for example, extension of the terms for the return of foreign exchange earnings or partial exemption from this requirement.

Duty-free access: It is important to ensure duty-free access for Ukrainian agricultural machinery to the EU market. This will allow Ukrainian manufacturers to compete on equal terms with European companies and will stimulate the development of domestic production.

Harmonization of standards: It is necessary to simplify certification procedures and harmonize technical standards between Ukraine and the EU. This will facilitate the process of Ukrainian products entering European markets, mitigate administrative barriers, and decrease the costs of compliance with EU requirements.

Support for innovation: Joint programs to support innovation and research projects in the field of agricultural machinery can help enhance the competitiveness of Ukrainian products on the EU market. It will also help integrate Ukrainian producers into European supply chains.

Export support: It is important to continue and expand state programs to support the export of Ukrainian agricultural machinery to EU countries. This could include providing financial incentives, in particular, soft loans and subsidies, for Ukrainian manufacturers seeking to enter the European market.

Also, according to domestic manufacturers of agricultural machinery, it is worth paying attention to the mechanisms for supporting producers in EU countries. We are talking about agricultural lending and leasing, financial support for the development of «smart» agriculture and the use of digital technologies in the agricultural sector, support for the export of agricultural products and machinery through various trade agreements and initiatives, etc.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukrainian agricultural machinery manufacturers see the following areas of cooperation:

- Technology Transfers: Exchange of advanced technologies and know-how, technology licensing, and joint production will allow to optimize manufacturing processes and improve productivity of both parties. This is an important step for adapting European technologies to the specific needs of the Ukrainian market.
- Investment support: Joint ventures and European investments will contribute to the modernization of Ukrainian production facilities. Participation in EU programs aimed at the development of small and medium-sized businesses will allow for more active attraction of capital for the development of the industry.
- Educational and training programs: Cooperation with European educational institutions through exchange programs, internships, and joint training courses will help improve the qualification level of Ukrainian specialists and strengthen the competitiveness of the industry.
- Common standards and certification: Harmonization of standards and certification procedures between Ukraine and the EU will facilitate the entry of Ukrainian agricultural machinery into European markets. This will allow Ukrainian companies to better meet the requirements of European consumers and integrate more quickly into the EU market.
- Marketing and exhibition events: Organizing joint

participation in exhibitions, fairs, and other marketing events will help enhance the recognition of Ukrainian manufacturers in European markets and contribute to strengthening ties with European partners.

Strategic benefits for the EU:

- Increasing access to innovative solutions and state-of-the-art technologies in the field of agricultural machinery, which will improve the productivity and efficiency of the agricultural sector in the EU.
- Reducing the cost of producing agricultural machinery through the use of cheaper resources and a highly skilled workforce in Ukraine.



MACHINE TOOL ENGINEERING

Information sheet

ГMachine tool engineering is a fundamental industry that plays a key role in the technical re-equipment and modernization of the machine-building complex, thus determining the level of competitiveness of the national economy in the global economic space. The general deindustrialization of the economy, the partial destruction of the production base as a result of military operations, the loss of traditional sales markets, and a number of other negative factors have had a substantial negative impact on the machine tool engineering industry of Ukraine. The industrial production index for ZED code 28.4 «Manufacture of metalworking machines and machine tools» in the period 2012–2021 dropped by 68.0%. In 2022, production in the industry fell for another 35.2% compared to the previous year. In 2023, there was an increase of 10.6%.

Ukraine remains a net importer of machine tools: in 2023, domestic exports of the relevant products (codes 8456–66 under UKTZED) amounted to 25.6 million USD, while imports were more than 11 times higher, reaching 290.9 million USD. Over the past

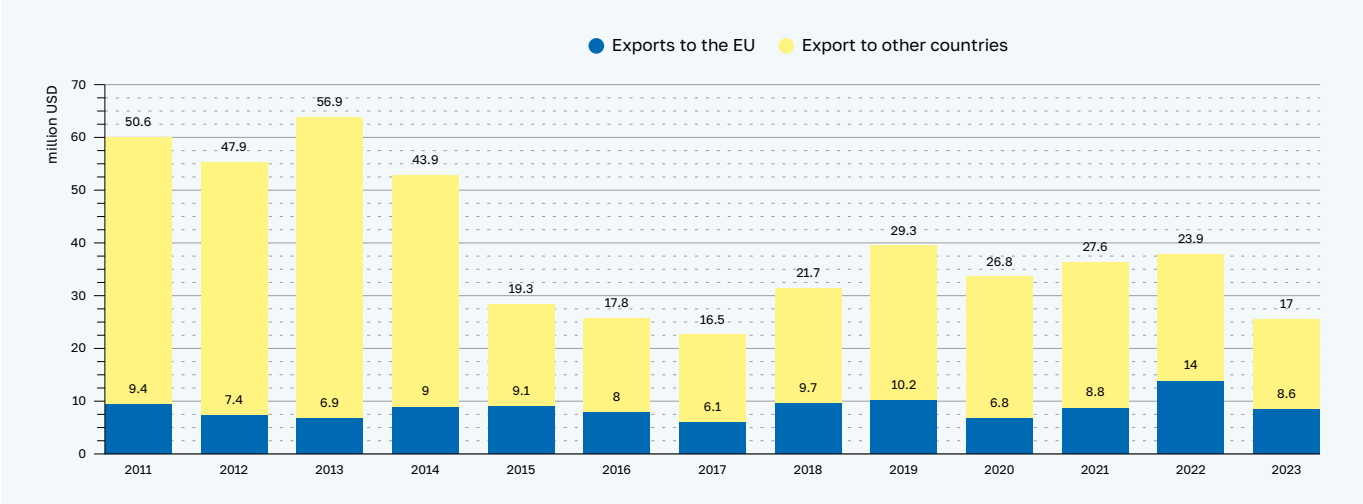


Fig. 2.31. Dynamics of exports of machine tool engineering products (HS 8456–66) from Ukraine to the EU and other countries of the world

decade, exports of machine tools and parts for them from Ukraine peaked in 2013, amounting to 63.7 million USD. Later, they fell significantly in 2015–2017 and had been partially recovering until 2022, when they reached 37.8 million USD. Exports to EU countries during the analyzed period experienced smaller fluctuations, ranging within 6.8–14.0 million USD. The share of deliveries to the EU in total exports of machine tool engineering products of Ukraine rose from 10.8% in 2013 to 37.0% in 2022 (Fig. 2.31).

The structure of Ukrainian exports of machine tool engineering products to the EU as of 2023 was dominated by various machine tools and machines for metal and metal-ceramic processing (54.7%), parts and accessories for machine tools (29.9%), and machine tools for the woodworking industry (11.7%).

Position of domestic producers

ARAMIS | INNOVATIVE TECHNOLOGIES

1. State of the industry and prospects for exports to the European Union market

The Ukrainian machine tool engineering industry has positive prospects for export growth, especially laser metalworking equipment, which is conditioned by the restoration of production capacities of the military and industrial complex (MIC) in the EU countries and Ukraine.

Key factors that will further influence market development include:

- Duration and conditions of the end of the war.
- Continued state support for production in the MIC and energy sectors.
- Trade policy between the EU and China, especially in the area of imports of metalworking equipment from China, where additional restrictions may be introduced.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers to the entry of machine tool engineering products into the EU market are related to certification, customs barriers, and internal factors.

- **Certification:** The need to obtain CE certificates of conformity for each type of product requires considerable financial and organizational resources, which becomes a significant barrier to entering the European market.
- **Import duties:** Metalworking machine tools are subject to a 4.5% duty, which reduces the competitiveness of Ukrainian products compared to other countries that have the duty-free access.
- **Internal factors:** Power outages, loss of skilled personnel due to mobilization, and strict currency regulations negatively affect the development of the industry.

3. Ways to solve problems and the role (support) of the Government

Urgent measures that need to be taken to develop the machine tool engineering industry are:

1. Urgent change in approach to customs regulation – import duties on finished products should always be higher than the duties for the components from which they are manufactured;
2. Carrying out measures to directly stimulate demand when purchasing machine tools from domestic manufacturers:

- Expansion of the cash-back program for business clients when purchasing domestically manufactured machine tools, or the introduction of direct subsidies to enterprises purchasing domestic equipment;
- Expansion of the interest rate compensation program for loans for domestically manufactured metalworking machines; and
- Extension of the law on localization to domestically manufactured metalworking machines.

Measures to develop export potential:

- Increasing the deadline for settlements for equipment supplied for export from 180 to 360 days; and
- Intensifying the support for promotion of Ukrainian products for export by compensating manufacturers for their costs of participating in international exhibitions.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Opportunities for cooperation with the EU and European companies:

- Organization of permanent forums between Ukrainian and European manufacturers will facilitate the exchange of experience and the strengthening of business ties.
- The EBRD may introduce new projects to compensate European buyers for part of the cost of purchased Ukrainian equipment, stimulating sales.

Key arguments for negotiating positions:

- Simplifying certification procedures will allow Ukrainian manufacturers to enter the EU market faster and reduce the costs of exporting products.
- Introducing additional barriers to the access of Chinese metalworking equipment to the EU could create competitive advantages for Ukrainian manufacturers.

TRANSPORTATION VEHICLE MANUFACTURING



AUTOMOTIVE INDUSTRY

Information sheet

У 2021 р. ринок цементу склав понад 10 млн. т, що стало реВійна негативно вплинула на всі сектори машинобудівної галузі України, зокрема і на автомобілебудування. Після повномасштабного вторгнення вітчизняні виробники автотранспорту зіткнулися зі складнощами через блокування українського кордону з боку Польщі та Словаччини, а також через втрату джерел постачання сировини та комплектуючих з рф та Білорусі. Падіння обсягів виробництва автомобілів було також спричинено кризою в суміжних галузях, таких як металургія та машинобудування.

Експорт автотранспортних засобів з України до ЄС у період з 2013 по 2021 роки був незначним, при цьому вартість поставок коливалася від 1,8 до 4,5 млн дол. У 2022 р, експорт до ЄС зріс більш ніж у 6 разів порівняно з 2021 роком, збільшившись з 4,5 до 29,2 млн дол. (Fig. 2.32).

According to the results of 2023, exports of passenger cars and other motor transportation vehicles to foreign markets went down by 33.6% compared to 2022, while deliveries to the EU dropped by almost 65%.

In 2023, Ukraine exported the largest volume of passenger cars (in value terms) to the following countries:

1. **Georgia – $8.24 million (29.6% of the total value of passenger car exports);**
2. **United Arab Emirates – over $4.9 million (17.6%); and**
3. **Germany – over $4.49 million (16.1%).**

Despite the positive trend of growth in exports to the European Union market, Ukraine's share in the total EU imports of motor transportation vehicles remains negligible at the level of 0.01% (according to the results of 2023). The main suppliers of these products to the European market remain China, Japan, Turkey, and South Korea.

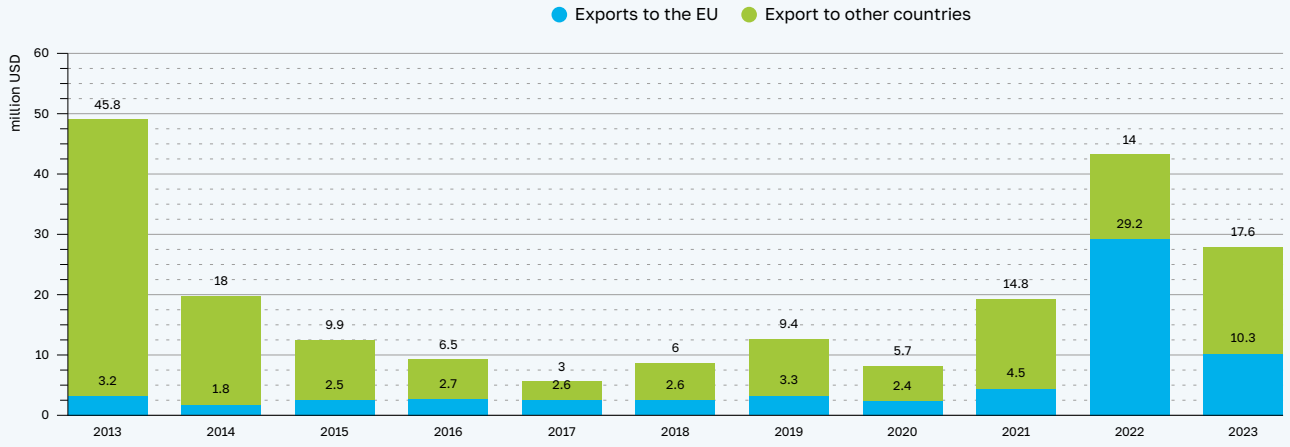


Fig. 2.32. Dynamics of exports of automobiles and other motor vehicles (HS 8703) from Ukraine to the EU and other countries of the world

Position of domestic producers

EUROCAR

1. State of the industry and prospects for exports to the European Union market

Given the already existing and invested production capacities, the Ukrainian automotive industry has the potential to stabilize and grow – provided that a balanced regulatory policy is adopted and conditions are created to make manufacturing more profitable than importing. This requires a comprehensive state approach – both in terms of supporting production and stimulating demand for cars and vehicles manufactured in Ukraine.

Taking into account its developed logistics and convenient location in the center of Europe between two large car markets (the European Union and the Middle East), Ukraine can become a low-cost production site for global OEMs with subsequent exports not only to European markets, but also, in particular, to the CIS and Middle East countries.

The existing FTA with the European Union already allows for the import of components for the automotive industry at zero duty rates and the export of Ukrainian-made cars to the EU duty-free. Cooperation with global automakers can be a strategic approach to more effective market penetration.

2. Main problems and barriers to entering (or expanding presence in) the European market

Access to EU markets opens up a great potential for growth and at the same time imposes new obligations to comply with a wide range of technical regulations and standards. Accordingly, the process of negotiations on EU accession requires a balanced and well-thought approach taking into consideration the needs of the market and the readiness of Ukrainian enterprises in the context of harmonization with EU legislation – implementation of European directives and technical regulations, removal of technical barriers, modernization of technical equipment, and introduction of the requirements of the EU Green Deal (in particular, implementation of Euro-6 environmental standards, preparation for the introduction of the CBAM mechanism, etc.), which may require significant additional investments.

3. Ways to solve problems and the role (support) of the Government

1. Support for the national manufacturer:

- To ensure priority for automobile manufacturing over imports by introducing tariff and non-tariff regulatory measures;
- To stimulate the development of electric vehicle production in Ukraine with subsequent localization;
- To stimulate demand for domestically manufactured cars;
- To ensure the enhancement of the environmental friendliness of the vehicle fleet; and
- To stimulate investments in automotive production and job creation;

2. Certification and compliance with standards – to help ensure compliance with EU standards and certificates, taking into account the specifics of the Ukrainian market; and

3. Export stimulation – to introduce solutions to support the export activities of Ukrainian automobile manufacturers.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Mutually beneficial cooperation between Ukraine and the EU can take several forms:

- Partnership with EU automotive companies to manufacture motor vehicles in Ukraine, combining the advantages of Ukrainian production with EU technologies and market access;
- Participation in joint R&D projects to develop new automotive technologies, in particular in the field of electromobility and autonomous driving, taking into account the powerful potential of the Ukrainian IT sector;
- Integration of Ukrainian suppliers of automotive products into EU supply chains, taking into consideration the extensive system of component manufacturers in Ukraine and the availability of minerals (graphite, lithium) that are critical for the production of electric vehicles;
- Arrangement of experience sharing programs for engineers and technical workers in order to enhance the exchange of skills and knowledge between Ukraine and the EU; and
- Participation in EU trade fairs and organization of business missions to increase the visibility and opportunities of Ukrainian automotive companies in the EU market.





BUS PRODUCTION

Information sheet

The situation in which Ukrainian public transport has been for many years does not encourage the purchase of new Ukrainian-made buses. This is connected with the fact that the lion's share of the domestic passenger transport market is occupied by imports, primarily of used vehicles.

The war in Ukraine, the destruction of transportation vehicle manufacturing enterprises, as well as the rapid decline in demand for new buses, led to an even greater deterioration of the situation in the bus industry.

In 2022, a total of 457 new buses were sold in Ukraine, which is 57.7% less than in 2021. At the same time, supplies of used buses to Ukraine decreased by only 10%. The new bus market in Ukraine demonstrated the volumes of 2015, when 477 units were sold.

Today, it is possible to keep domestic bus manufacturers afloat only through the "School Bus" state program, which operates within the framework of the broader program "Made in Ukraine". Last year, thanks to this program, it was possible not only to update school bus fleets in communities, but also to promote

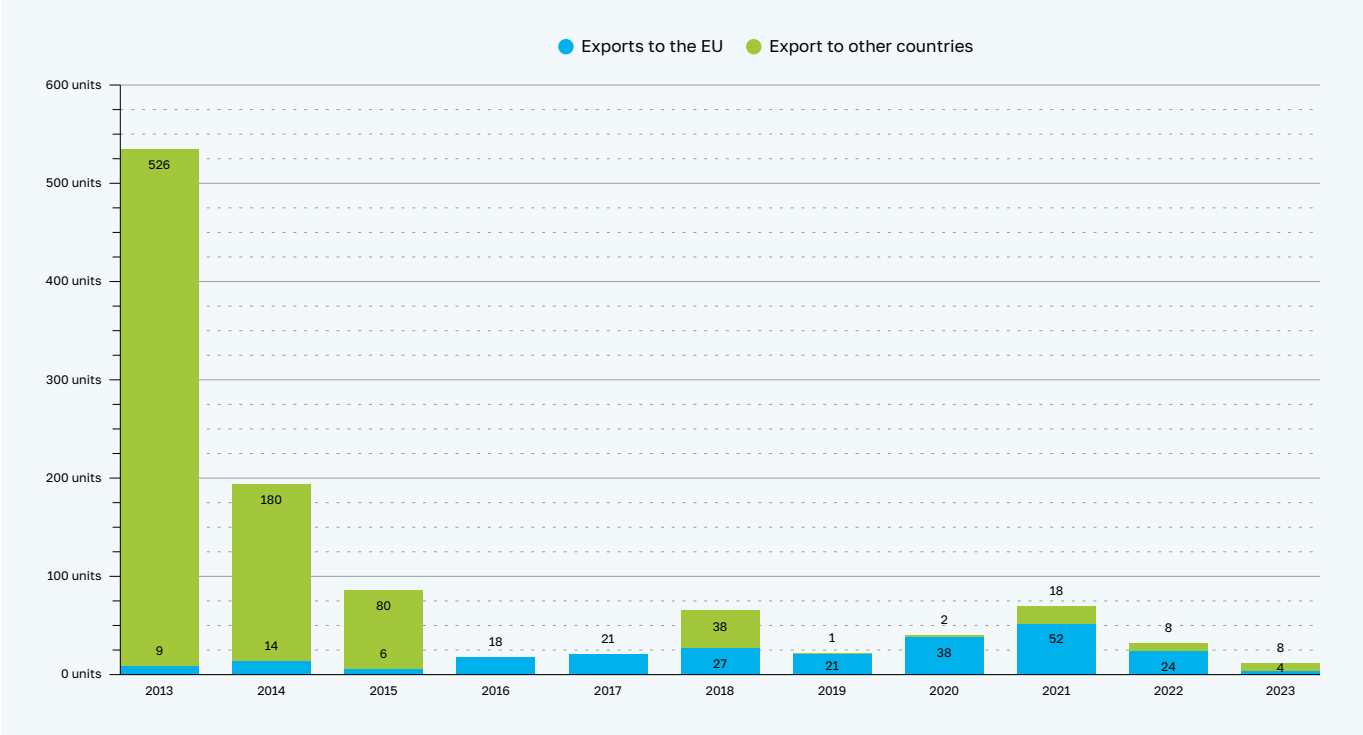


Fig. 2.33. Dynamics of exports of buses (HS 8702) from Ukraine to the EU and other countries of the world

economic development in the regions. Bus manufacturers and subcontractors in Chernihiv, Cherkasy, Zaporizhzhia, and Lutsk, as well as other cities had stable orders. This allowed the companies to preserve existing jobs and create new ones, ensuring new revenues to the budget.

During 2010-2013, Ukraine sold an average of 500 or more buses annually on foreign markets, with russia being the main sales market.

Starting from 2014, the export of this type of transport began a rapid decline. In 2015, the volume of export deliveries collapsed by more than 6 times compared to 2013, from 535 to 86 units.

In 2018, there was a relative revival in export sales of domestically manufactured buses, but after the start of the war, these sales hit record lows again (Fig. 2.33).

The European Union market has never been the main sales market for Ukrainian buses. The largest number of buses (52 units) was sold in the EU in 2021, with Poland becoming the main importing country.

Instead, the list of major foreign suppliers of buses to the EU market includes manufacturers from Turkey, the United Kingdom, and China.

Position of domestic producers

ELECTRON CORPORATION

1. State of the industry and prospects for exports to the European Union market

The European Union market is promising for the export of Ukrainian public transport, in particular buses. According to domestic manufacturers, expanding access to this market will contribute not only to the growth of transportation vehicles' production, but also to the creation of new jobs, reduction of unemployment, and stimulation of the development of related industries, such as metallurgy, electronics, and logistics. Access to the EU market will make Ukraine more attractive to foreign investors, which will stimulate the modernization of production facilities, technological exchange, and growth of export potential.

The prospects for bus exports to the European market depend on several factors:

- The high demand for environmentally friendly transport, which is actively supported by the European Union, especially in the field of electric and hybrid buses. This opens up significant opportunities for Ukrainian manufacturers who can offer competitive models.
- Development of transport infrastructure, in particular, thanks to urban transport modernization programs in Eastern Europe, which creates new opportunities for the supply of Ukrainian buses.
- The geographical proximity of Ukraine to EU countries, which allows us to cut down the logistics costs and gain a competitive advantage over more distant suppliers.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers for Ukrainian bus manufacturers to enter the EU market include high competition, certification, and other regulatory requirements, namely:

- The European public transport market is already saturated with powerful players such as Mercedes-Benz, MAN, Scania, Volvo, and VDL, which have a developed dealer network and many years of experience working with customers. This makes market penetration a difficult task for Ukrainian manufacturers;
- Chinese companies such as BYD and Yutong offer competitive electric buses supported by government subsidies. This reduces the ability of Ukrainian manufacturers to compete on price; and
- The EU sets strict quality, safety, and environmental standards for public transport. To meet these requirements, Ukrainian manufacturers need to invest significantly in technology and product certification.

3. Ways to solve problems and the role (support) of the Government

The prospects for the production and sale of domestic buses depend on comprehensive state support, economic stability, innovative development, and social demand. A state policy aimed at supporting domestic manufacturers, for example through state orders for buses for public transport, can be an important incentive. Also important are the issues of increasing the degree of localization of goods, which will positively affect the development of domestic production.

Considering the above, it is necessary to ensure the following:

- Provision of subventions from the State Budget of Ukraine to local budgets for part of the cost of the purchased tram/electric bus/trolleybus, etc., regardless of the sources of financing for these procurements (local budget, own funds of enterprises, international financial organizations' loans, Ukraine's recovery program, leasing programs, etc.);
- Making amendments to the Resolution of the Ukrainian Cabinet of Ministers dated December 4, 2019 No. 1070 "Certain issues of prepayment by administrators (recipients) of budget funds for goods, works, and services being purchased with budget funds" in terms of granting the right to administrators of budget funds to make a prepayment in the amount of 70% of the cost of the goods;
- Development of a budget program of state support for domestic manufacturers participating in projects for the

development of urban public transport, in the amount of UAH 100 million annually to expand manufacturing capacities and update production equipment, as well as to implement measures for import substitution of components and parts that are not produced in Ukraine;

- Development of a state program to support domestic manufacturers of municipal transport, which includes compensation for interest rates on loans granted for fulfillment of contracts for the production of public transport, as well as state guarantees to authorized banks to reduce requirements for manufacturers regarding the collateral for these loans;

- Regulatory settlement of the obligation of the customer to pay for the delivered transportation vehicles in accordance with the contract concluded following the results of the public procurement tender (removal from supply contracts of norms regarding the termination of contracts in the event of a lack of budget funds) and the prohibition of stopping the tender due to the lack of budget funds provided for the tender;

- Making amendments to the Law of Ukraine on Public Procurement to provide for the mandatory use of non-price criteria in tender offers of enterprises offering transportation vehicles, manufactured in countries that are not members of the Agreement on Government Procurement of the World Trade Organization or do not have legislation restricting state aid similar to the Law of Ukraine «On State Aid to Business Entities»;

- Solving problems of VAT taxation of prepayment for goods under contracts concluded as a result of public procurement of the public transportation vehicles; and

- Making amendments to the contracts financed by the European Investment Bank, which would stipulate the following:

  1. The norm regarding the payment term no later than 60 days from the date of delivery of the goods;

  2. The supplier's right to adjust the invoice at the new exchange rate of hryvnia to Euro in the event of a delay in payment of more than 30 calendar days from the date of invoice; and

  3. Review of the tender offer evaluation system in terms of including in the bid price the import duty amounts that will be paid by customers upon delivery of procurement items (FCA delivery terms instead of EXW). Otherwise, the bids of Ukrainian manufacturers will be discriminated in terms of price.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Strategic benefits for the EU:

Diversification of supplies: cooperation with Ukrainian bus manufacturers will allow the EU to diversify its supply chains, reducing dependence on other external suppliers.

Integration into European supply chains: inclusion of Ukrainian manufacturers in European supply chains will help cut down the costs and increase production efficiency in the EU.

Sustainable development: collaboration in the manufacturing of environmentally friendly transportation vehicles (electric buses) will allow the EU to achieve the goals of the Green Deal and reduce greenhouse gas emissions.

Key arguments for negotiating positions:

Creation of joint ventures: European investments in Ukrainian bus manufacturing will allow integrating Ukrainian manufacturers into EU supply chains.

Financial support: provision of Ukrainian manufacturers with access to preferential loans and financing through European institutions will allow them to compete on an equal footing with European companies.

Environmental projects: Supporting the manufacturing of environmentally friendly buses in Ukraine will help the EU achieve its CO_2 emission reduction targets.





TRAILER AND SEMI-TRAILER PRODUCTION

Information sheet

The production of cargo trailers and semi-trailers in Ukraine is quite poorly developed. Despite the wide range of products, the range of trailers in Ukraine is narrow for general cargo transportation tasks, and production is carried out to order. Domestic producers specialize mainly in the manufacture of automotive trailed specialty vehicles, intended for the agricultural industry (which is associated with the developed agricultural sector in Ukraine), as well as for passenger cars.

In 2022, both used models of machinery (among them, almost 50% of semi-trailers were imported and about 45% were purchased on the domestic market) and the new ones (8%, of which about 500 units were produced by Ukrainian manufacturers) were in demand. At the same time, dump trucks and tankers were in the greatest demand.

Until 2016, the main foreign markets for domestically produced trailers and semi-trailers were the russian federation and Turkmenistan. Starting from 2016, the share of exports to

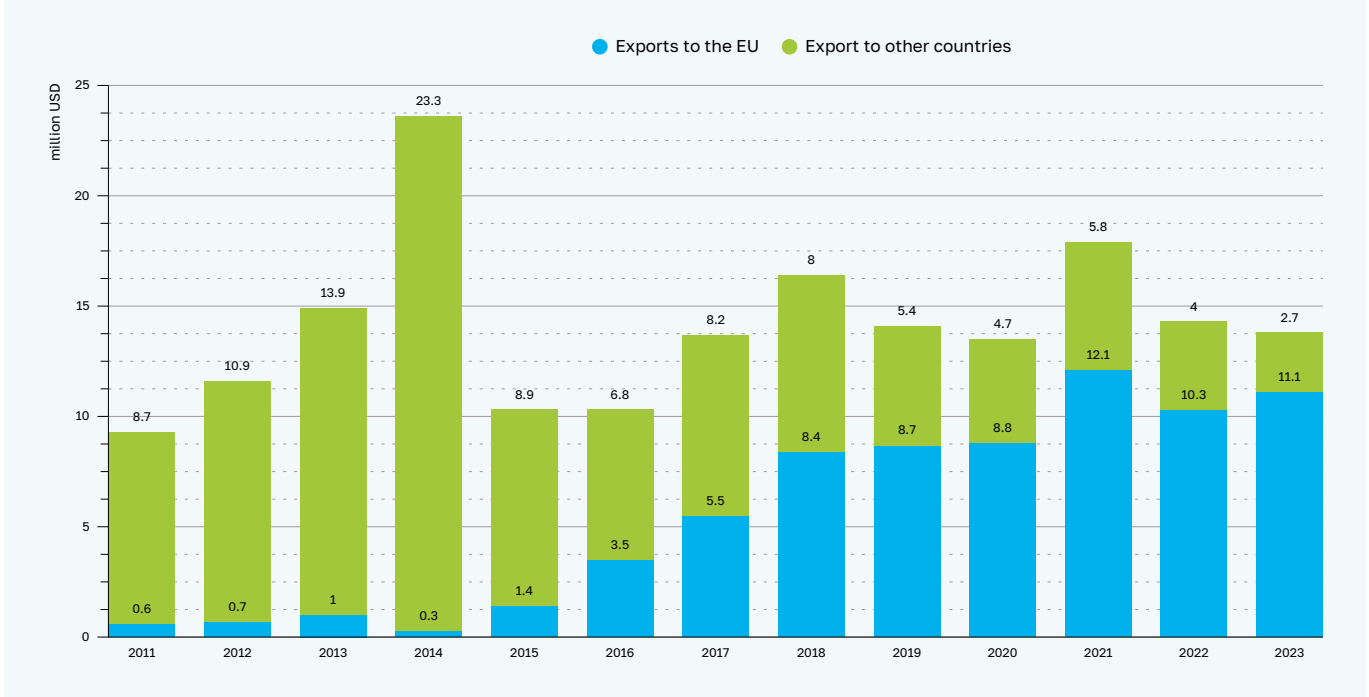


Fig. 2.34. Dynamics of exports of trailers and semi-trailers (HS 871610, 871620, 871631, 871639, and 871640) from Ukraine to the EU and other countries of the world

European countries began to grow. Already in 2021, Ukraine supplied the European Union market with trailers and semi-trailers worth 12.1 million USD, which is almost 9 times more than in 2015.

Overall, during the period between 2015 and 2023, the share of sales of trailer products to the EU market in total Ukrainian exports increased from 13.2% to 80.6%.

In the export structure, the largest share is occupied by trailers and semi-trailers for use in agriculture (HS 871620), specially designed for the transportation of highly radioactive substances (HS 871639), and other trailers under HS code 871640 (Fig. 2.34).

In the total EU imports of trailers and semi-trailers, Ukrainian-made equipment accounts for a quite insignificant part, within 1%.

At the same time, according to the results of 2023, Ukraine entered the top three leading exporters of trailers and semi-trailers used in agriculture (HS 871620) to the EU countries. The main suppliers of this type of trailers to the European Union were:

1. **Turkey with a share of 34% ($9.3 million) in total EU imports;**
2. **Great Britain – 29% ($8 million);**
3. **Ukraine – 12.1% (3.3 million dollars);**
4. **China – 8% (2.2 million dollars); and**
5. **USA – 7.7% (2.1 million dollars).**

Position of domestic producers



1. State of the industry and prospects for exports to the European Union market

The EU market is promising for Ukrainian trailer products, but successful entry into this market depends on the Government support. The main challenges are differences in technological standards, customs barriers, and strong competition with European manufacturers who benefit from subsidies, cheap loans, and government orders. However, common borders and interest in Ukrainian products on the EU market create the prerequisites for the growth of exports.

Ukrainian manufacturers are already implementing modern quality standards, such as ISO, and applying innovative production approaches, in particular LEAN, which allows them to preserve their competitiveness. Competition with Turkish and Polish manufacturers remains high, but Ukrainian companies are distinguished by their flexibility, individual approach to customers, and speed of decision-making.

Further growth in exports of Ukrainian trailer products depends on Government support, improving product quality, and overcoming customs and regulatory barriers.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems for the export of trailer products from Ukraine include technological backwardness and customs and regulatory barriers, which are as follows:

- The lack of a technological base forces Ukrainian manufacturers to purchase components in the EU, which increases the cost of production;
- Differences in technological standards and sophisticated customs procedures slow down the process of Ukrainian manufacturers' entry to the European markets; and
- The EU supports local manufacturers through subsidies, cheap loans, and government orders, which creates an additional barrier for Ukrainian companies.

3. Ways to solve problems and the role (support) of the Government

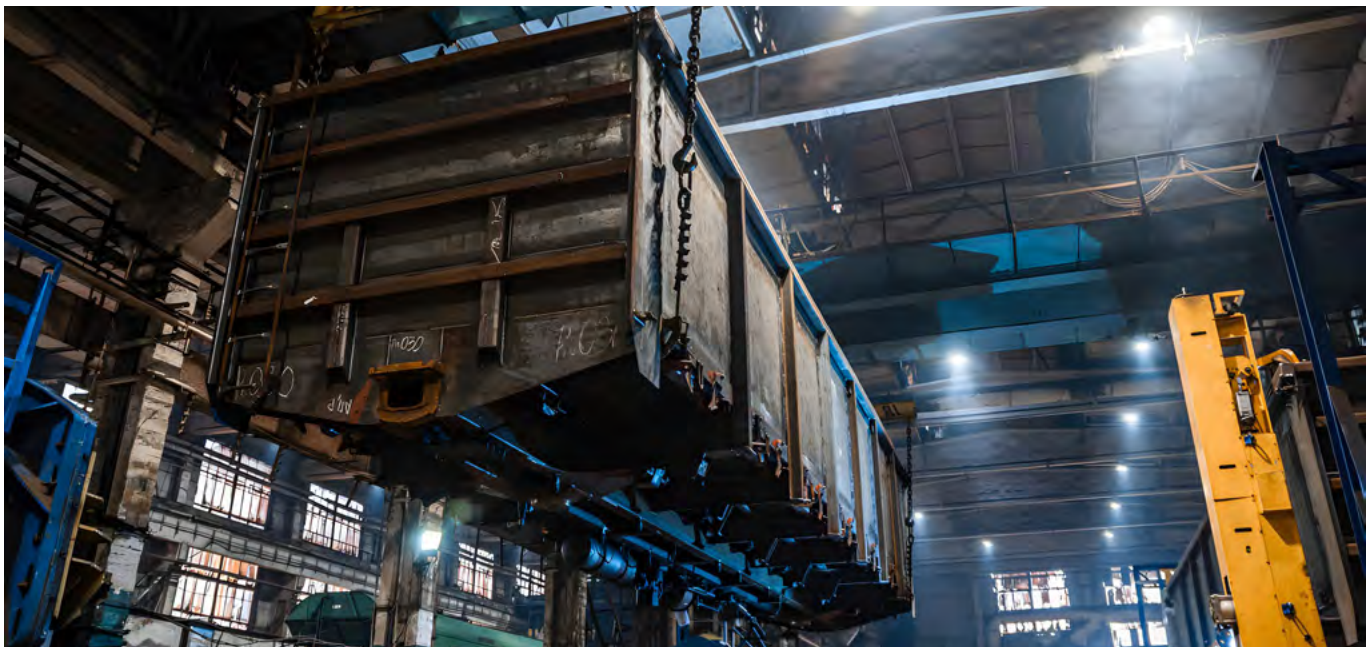
To increase production volumes, it is necessary to ensure the following:

- Labor market development: collaboration between local self-governments and educational institutions to train personnel and popularize manufacturing professions among young people.
- Energy efficiency: stimulating energy efficiency improvements at enterprises through financial programs, in particular from external donors (USAID, etc.).
- Financial support: compensation for the costs of promotion to international markets, cooperation with banks for partial compensation of the cost of products, and support from the Export Credit Agency.
- Government orders: formation of orders focused on supporting national producers.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Opportunities for cooperation with the EU and European companies:

- Exchange of technologies and attraction of international investments will allow to improve the quality of products and simplify access to EU markets; and
- Establishment of joint ventures between European and Ukrainian companies to revive Ukraine's industry will contribute to economic growth.



RAILCAR MANUFACTURING

Information sheet

Ukraine's railcar building industry had a complicated development history over the previous decade. The index of industrial production for CEA 30.20 "Manufacture of railway locomotives and rolling stock" decreased by 88.6% in 2013-2015 compared to 2012. The period of gradual recovery in 2016-2019 was interrupted by an almost twofold drop in production in 2020. The rate of decline in production in the industry in 2022 was not as significant as for the industry as a whole and amounted to 26.3%. In 2023, production in the railcar building industry increased by 0.9% year-on-year. As a result, the volume of railcar production in Ukraine in 2023 amounted to only 16.0% of the level of 2012.

The main items of domestic exports of railcar building products are currently non-self-propelled freight railcars (UKTZED code 8606) and containers intended for transportation by rail or for multimodal transportation (8609) (Table 2.2).

Until 2012, Ukraine's exports of freight railcars exceeded 40 thousand units per year; in 2013, it dropped to 20.7 thousand units, in 2014 - to less than 5 thousand units, and continued to be in the range of 1.0-4.2 thousand units in 2015-2020. Already in 2021, Ukraine exported only 442 freight railcars, and in 2022 - 78 railcars. In 2023, export deliveries of these products amounted to 342 units. Since 2015, Ukraine has exported less than a hundred freight railcars to the EU per year, but given the overall decline in supplies to foreign markets, the EU's share of exports has increased to 24.0%.

Exports of railway containers, with the exception of 2012-2014, remain fairly stable and range from 2.6 to 5.1 thousand units per year. The vast majority of these products are exported to the EU, which accounted for 83.9% of exports in 2023.

Position of domestic producers

TAS GROUP

1. State of the industry and prospects for exports to the European Union market

The growing demand for freight cars in Europe provides prospects for Ukrainian producers. In line with EU regulations to reduce carbon dioxide emissions, demand for freight cars is expected to increase as the EU aims to reduce road transportation by at least 25%. This will help reduce CO_2 emissions and meet the requirements of the European Freight Interoperability Directive.

Although European freight car manufacturers are currently meeting the existing demand, their production capacity may not be enough in the future. This creates opportunities for increased exports from Ukraine. The shortage of production capacity in the EU and the growing demand for railcars could be key factors that will boost exports from Ukrainian producers.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problems of Ukrainian freight car manufacturers are related to quality, production time and pricing. In particular:

- Ukrainian manufacturers must guarantee high quality that meets European standards to strengthen their image in the EU market;
- European customers expect fast production times, which requires significant investments in production facilities and management processes;

- To enter the EU market, Ukrainian producers must offer products at a price 5-10% lower than competitors, which complicates financial prospects;
- Deferred payments for 30-90 days by European customers require sufficient working capital to fulfill contracts.

3. Ways to solve problems and the role (support) of the Government

The main ways to optimize the access of Ukrainian freight cars to the EU market are:

- Transition to European standards: Ensure full transition of Ukrainian manufacturers to European standards for railcar production and certification.
- Campaigns to promote and present Ukrainian producers as an alternative to Eastern European and Turkish competitors.
- Involvement of EU certification companies in Ukraine to simplify certification procedures.
- Establishment of service life limits for freight cars and revising standards for new types of cars.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Opportunities for cooperation with the EU and European companies:

- joint ventures: creation of enterprises for the production of components and railcars on the basis of Ukrainian and European manufacturers;
- production sites: opening of production facilities of European manufacturers in Ukraine will contribute to the development of infrastructure and facilitate access to the Ukrainian market.

Key arguments for negotiating positions:

- inclusion in the ERA registers: Simplifying the registration of Ukrainian freight car manufacturers in the EU will help to increase the competitiveness of Ukrainian products in the European market.

Table 2.2.
Dynamics of production and export of certain types of railcar building products in Ukraine

	8606 "Railroad or tram cars for the carriage of goods on tracks, not self-propelled"				8609 "Containers specially designed and equipped for transportation by one or more modes of transport"		
	Production, units.	Exports, units.			Exports, units.		
		Total	to the EU countries	Share of the EU, %	Total	to the EU countries	Share of the EU, %
2011	–	44 087	336	0,8	2 556	2 253	88,1
2012	–	40 934	2 936	7,2	922	473	51,3
2013	25 281	20 666	1 372	6,6	709	264	37,2
2014	6 212	4 993	245	4,9	965	682	70,7
2015	1 354	2 125	45	2,1	2 658	1 668	62,8
2016	2 914	3 999	11	0,3	3 421	2 746	80,3
2017	6 919	4 200	35	0,8	2 641	2 192	83,0
2018	11 455	1 024	27	2,6	3 105	2 328	75,0
2019	10 813	2 380	52	2,2	3 265	2 015	61,7
2020	3 269	1 420	56	3,9	3 313	2 462	74,3
2021	2 463	442	50	11,3	5 104	4 767	93,4
2022	–	78	29	37,2	2 946	2 267	77,0
2023	–	342	82	24,0	2 911	2 441	83,9

Source: State Statistics Service of Ukraine.



PRODUCTION OF TANK CONTAINERS

Information sheet

Between 2019 and 2021, the tank container market experienced steady growth. During 2022-2023, the demand for tank containers sharply increased. The main reason for this was the cessation of trade relations with russia, which had long been a key supplier of petroleum products, lubricants, and ammonia transported through pipelines. As a result, Ukraine faced an increased need for vehicles to transport liquid cargo, including imports. In addition, the demand for fuel and lubricants from the Ukrainian defense forces has increased. At the beginning of 2024, there is a downward trend in imports, which is likely to indicate market saturation and stabilization of demand.

In 2011-2023, the main type of tanks exported by Ukraine to foreign markets was tanks, cisterns, tanks and similar containers of ferrous metals according to HS code 730900, which accounted for more than 90% of total exports of these products.

Until 2015, russia and other CIS countries were the main foreign markets. Starting in 2016, the volume of tank exports to the EU countries began to grow gradually. In 2022, the value of exports to the European market increased almost 6 times compared to

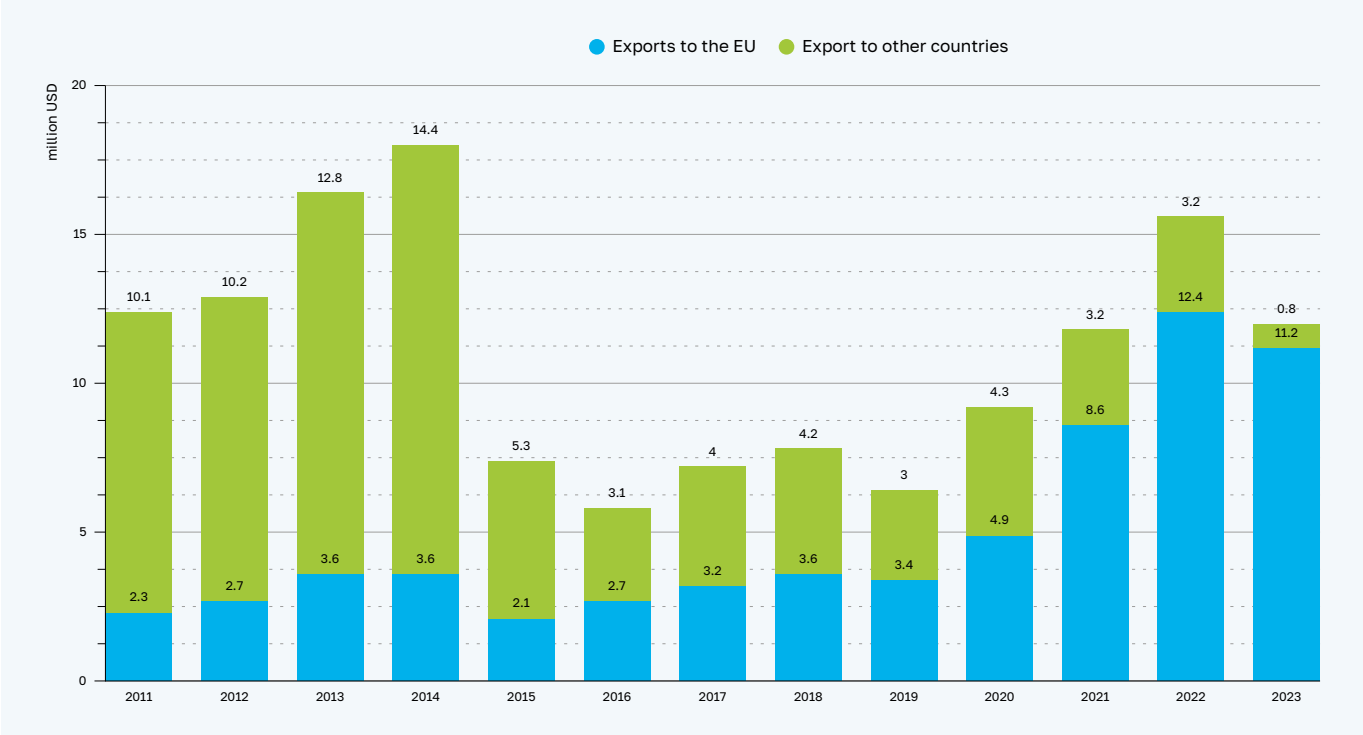


Fig. 2.35. Dynamics of exports of tank containers (HS 730900, 871631) from Ukraine to the EU and other countries

2015, from USD 2.1 million to USD 12.4 million. USD to 12.4 million USD.

In 2023, the main export countries for domestically produced tanks (HS 730900) were France and Poland, where Ukraine sold products worth USD 5.7 million and USD 3.2 million, respectively, which is almost 79% of total exports of this product group (Fig. 2.35).

According to the results of 2023, Ukraine's share in the total imports of tanks (HS 730900) by the EU countries amounted to 3.4%, worth USD 11.2 million. The main countries supplying these products to the European market were:

1. **Korea with a share of 24% ($78.4 million);**
2. **China - 15% (49.3 million dollars);**
3. **United Kingdom - 14% (USD 45.6 million).**

Position of domestic producers

EVERLAST
TANK VEHICLE MANUFACTURER

1. State of the industry and prospects for exports to the European Union market

The Ukrainian tank truck industry experienced peak demand in 2022, when major logistics routes were disrupted due to the shutdown of railways and ports. During this period, carriers' fleets were actively replenished with new and used tanks. Domestic demand for tank trucks is expected to decline in the coming years due to market saturation.

However, the situation for rail tank cars is different: the tank car fleet is significantly worn out and needs to be renewed. The pent-up demand for liquid nitrogen fertilizer tanks, which was not realized in 2022-2023, should also become a growth factor in the coming years.

As for export prospects, the EU market is one of the key destinations for Ukrainian tank truck manufacturers. In particular, companies are actively developing the markets of "young Europe" such as the Czech Republic and Romania. Romania is expected to become the main trading platform in the Balkans, while the Czech Republic is expected to supply Denmark, Sweden and Finland. In addition, the Netherlands, as an important trade hub for Africa and the Middle East, is also becoming a strategic destination for Ukrainian tank exports through local dealers.

Overall, although the EU market has high potential, it remains saturated with local producers and suppliers from Turkey. In addition, in order to successfully enter the European market, Ukrainian producers need to take into account the demands of customers in terms of product quality and delivery time.

2. Main problems and barriers to entering (or expanding presence in) the European market

Entering the EU market is accompanied by the following problems for Ukrainian tank truck manufacturers:

- Competition from local producers and other exporters. The EU market is saturated with local producers and importers from Turkey, which have strong support from the government. For example, Turkey reimburses 50% of the costs of participation in exhibitions for domestic companies. In turn, customers in the EU demand high quality and timely delivery, which also increases competition.
- Lack of EU certification laboratories in Ukraine. For example, companies have to transport tanks to the Czech Republic to test their products, which makes it difficult to enter the EU market.

3. Ways to solve problems and the role (support) of the Government

In order to increase exports and increase the presence of Ukrainian producers in the EU market, it is necessary to:

- state support for exports, namely the creation of export support programs similar to those that exist, for example, in Turkey, where the state compensates 50% of the costs of participation in exhibitions;
- inviting EU certification laboratories. The government should facilitate the opening of representative offices of such laboratories as DEKRA and TUV in Ukraine, which will facilitate the certification of Ukrainian products and simplify access to the European market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukraine has the potential to become a major production site for the whole of Europe. The large shortage of skilled workers in European countries and the simultaneous increase in production costs in China make Ukraine attractive. Ukrainian tank manufacturers could cooperate and fulfill orders from European companies. Outsourcing of production processes from the EU to existing facilities in Ukraine is a promising area of cooperation.



PRODUCTION OF ELECTRICAL EQUIPMENT



PRODUCTION OF TRANSFORMERS

Information sheet

Analyzing the Ukrainian transformer equipment market, we can note a trend towards a gradual increase in the share of imported products. In particular, the growth rate of imported transformers exceeds 10% per year on average, which indicates the growing competitiveness of foreign manufacturers in the domestic market.

Overall, the market is expected to grow further, driven by increased consumption of transformer equipment. The growing demand is driven by the need to restore power facilities destroyed during the hostilities and the active development of green energy. The installation of new solar and wind power plants creates additional opportunities for the expansion of the transformer market.

The beginning of the russian invasion of Ukraine had a very negative impact on foreign trade in domestically produced transformers. Over the last 11 years, the physical volume of exports of transformer products has decreased 23 times from 48.6 thousand tons (2013) to 2.1 thousand tons (2023), which was mainly caused by the loss of the main foreign market - the

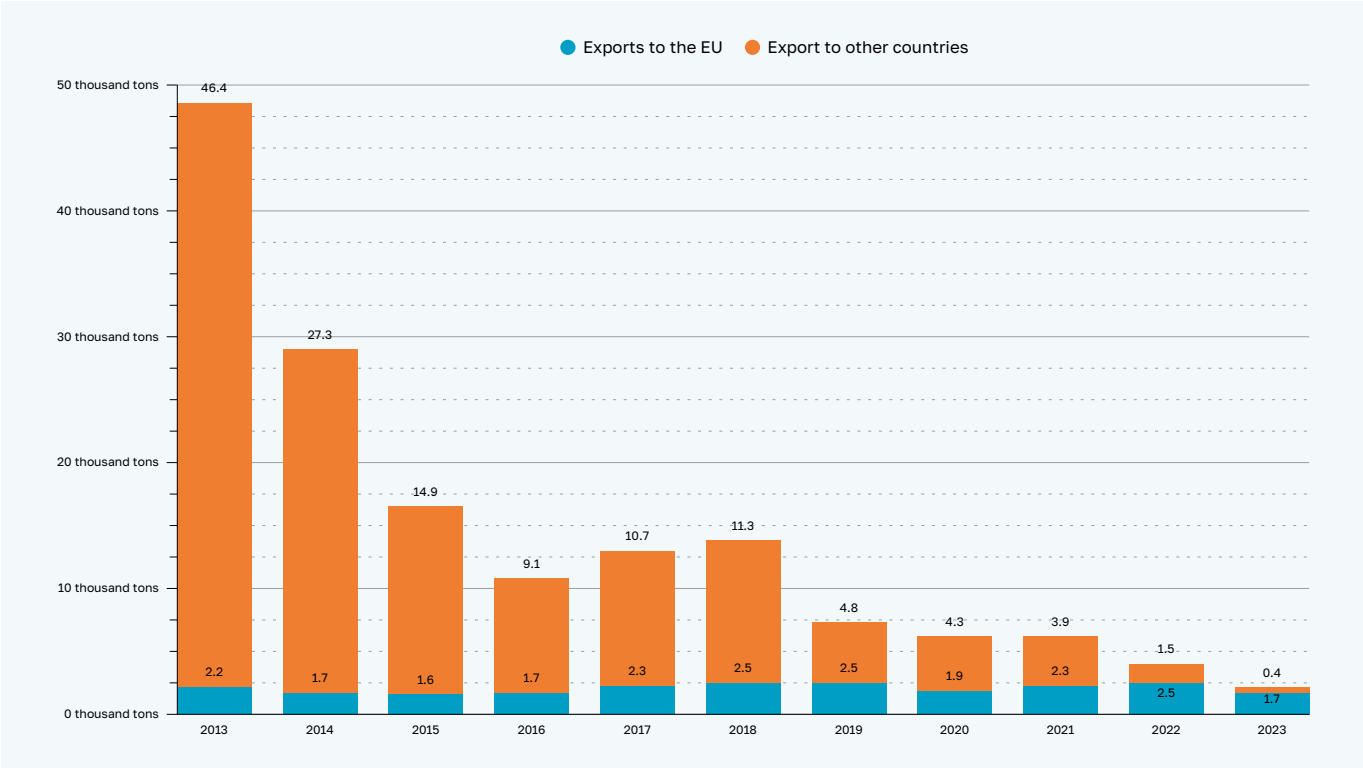


Fig. 2.36. Dynamics of exports of transformers (HS 8504) from Ukraine to the EU and other countries

russian federation. Since the end of 2022, this reason has been supplemented by an increase in domestic demand.

In the period from 2013 to 2023, transformers were supplied to the European market in relatively stable volumes, not exceeding 2.5 thousand tons annually. In 2023, the main importing countries of domestically produced transformers were Hungary, Poland, Germany, and Moldova (Fig. 2.36).

According to the results of 2023, Ukraine's share in the total imports of transformers by the EU countries amounted to only 0.2% (1.7 thousand tons). Instead, China is the undisputed leader in supplying these products to the European market, with a share of 57% (520 thousand tons) in total EU imports in 2023.

Position of domestic producers



1. State of the industry and prospects for exports to the European Union market

Given the difficult economic situation in Ukraine as a result of the war, business activity in many sectors of the economy is declining, and transformer production is no exception. According to transformer producers, after the war ends and the market stabilizes, production may increase, but it is not expected to be significant. This is due to three objective reasons:

- competition with Chinese manufacturers offering extremely low prices, which may lead to the displacement of Ukrainian producers from the market;
- lack of localization requirements for private businesses, especially given the number of private oblenergos;
- supplying transformers to the Ukrainian market as humanitarian aid.

As for exports, the main destinations for Ukrainian producers are the EU, Moldova and the Balkans. Thanks to the harmonization of technical requirements for transformers, products made in Ukraine meet EU standards and can be freely supplied to these markets. Geographical proximity, transport infrastructure, and the lack of domestic competition in many EU countries (many EU countries do not have their own transformer production) are additional advantages for Ukrainian producers.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers for Ukrainian transformer manufacturers to enter the EU market:

- High accreditation costs: obtaining certificates to sell transformers in the EU is financially burdensome for Ukrainian manufacturers;
- Insufficient financial support: Lack of resources to participate in international exhibitions and other marketing events limits the ability to promote products on the European market;
- Financial terms of tenders: the terms of tender procurement in the EU countries provide for deferred payments for 30-60 days, which requires additional credit to fulfill contracts, but access to financing is limited.

3. Ways to solve problems and the role (support) of the Government

To support Ukrainian transformer equipment manufacturers in the European market, the government can take the following comprehensive measures:

1. Financial support and compensation:

- introducing programs to compensate for the costs of transformer certification in EU laboratories and partial support for participation in international exhibitions to promote products.
- providing access to preferential financing through an export credit agency for the fulfillment of foreign economic contracts, including deferred payments, which is a condition for most tender purchases in the EU.

2. Lobbying and international promotion:

- Intensify lobbying through Ukrainian embassies and diplomatic missions to promote products in foreign markets.

3. Harmonization of standards:

- Continuing the process of harmonizing technical standards with EU requirements to facilitate access of Ukrainian producers to European markets.

4. Localization:

- Supporting the localization of production of components for transformers, which will reduce production costs and increase competitiveness in the European market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Strategic benefits for the EU:

Ukrainian transformers meet EU requirements, have a competitive price and support the European economy through the use of European materials (50-70% of the materials used in the production of transformers in Ukraine are produced in the EU).



PRODUCTION OF LIGHTING EQUIPMENT

Information sheet

The main trend in the production of lighting equipment both in Ukraine and on the global market is the transition from traditional incandescent and fluorescent lamps to LED technologies. LED lamps have taken a leading position among lighting equipment manufactured in Ukraine due to their high energy efficiency, long service life and reduced environmental impact.

The growth in demand for LED lamps in Ukraine has been particularly noticeable since 2023, when it increased by 40%, and is projected to reach 60% in the future. At the same time, the transition to LED technology in Europe is even faster: the annual growth of the LED lamp market share is 150%.

It is worth noting that a significant portion of the products on the Ukrainian LED lighting market are of Chinese origin, and local companies are mainly engaged in assembling lighting equipment from imported components.

At the same time, there are domestic manufacturers who have managed to establish production of LED products that

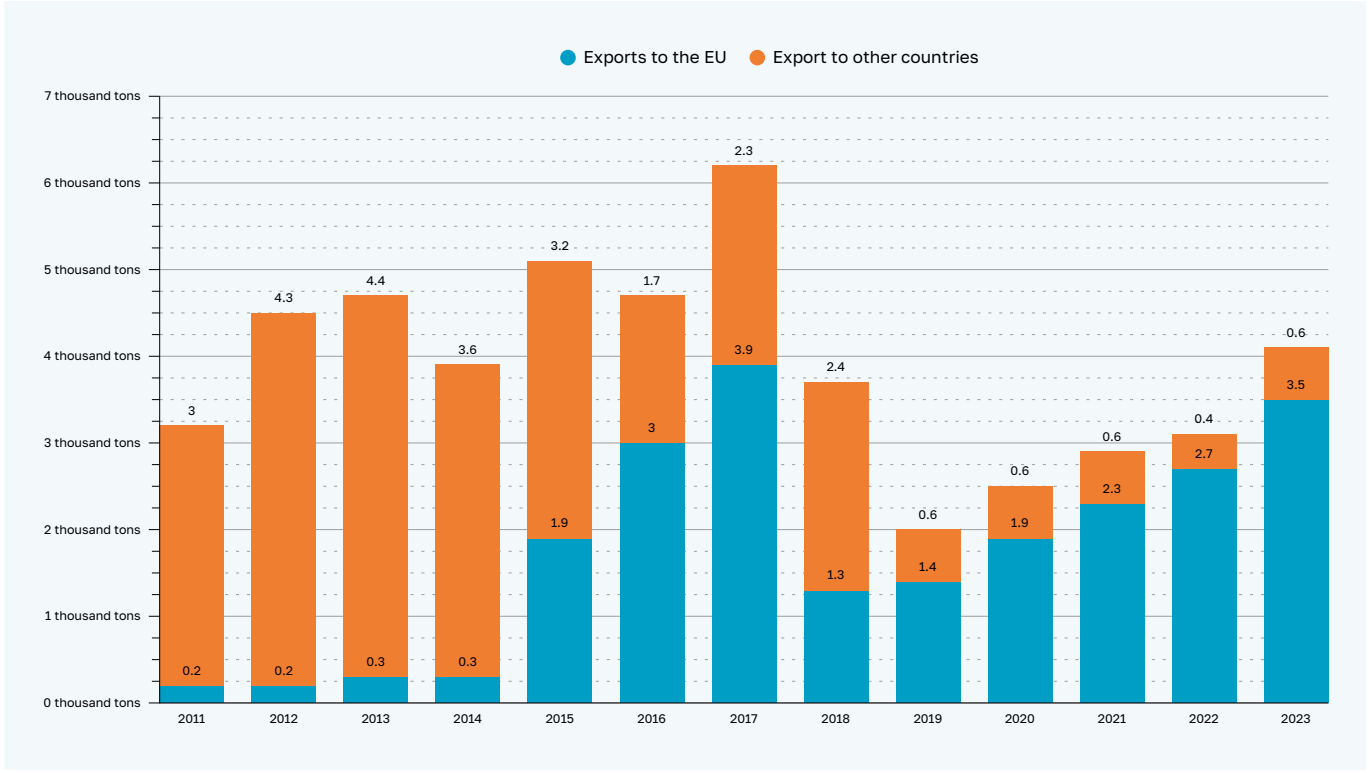


Fig. 2.37. Dynamics of exports from Ukraine of lamps and lighting equipment (HS 9405) to the EU and other countries

meet European quality standards and have all the necessary certificates of compliance with European requirements.

In recent years, exports of Ukrainian lighting equipment to the European market have begun to grow steadily. In the period from 2018 to 2023, the volume of sales of Ukrainian-made lighting products to the EU market increased from 1.3 to 3.5 thousand tons, and the EU's share in Ukraine's total exports increased from 34% to 86.5%. In 2023, the main importing countries of Ukrainian products were Belgium, Germany, France, Poland, and Austria (Fig. 2.37).

In 2023, Ukraine's share in the total imports of lighting equipment by the EU countries amounted to less than 1% (3.5 thousand tons). The main supplier of this type of product to European countries is China, whose share in total EU imports is more than 90% (566 thousand tons in 2023).

Position of domestic producers





1. State of the industry and prospects for exports to the European Union market

The European market is the main and most promising for Ukrainian lighting equipment. The biggest competitors for Ukrainian producers in the EU are companies from Poland, Croatia, the Czech Republic and Germany, which often operate as part of holdings or business groups.

Competing with Chinese manufacturers is virtually impossible because Chinese companies often supply products without certification and without complying with European standards.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main challenges for Ukrainian lighting equipment manufacturers to enter the EU market include:

- competition with European and Chinese manufacturers: European and Chinese companies have a significant advantage due to lower production costs and non-compliance with European certification standards;
- High certification costs: Ukrainian producers face high costs for obtaining certificates of compliance with European requirements;
- Lack of government support: insufficient funding for certification and marketing activities limits the ability of Ukrainian companies to promote their products on the European market.

3. Ways to solve problems and the role (support) of the Government

To increase the competitiveness of Ukrainian lighting equipment manufacturers in the EU market and solve the existing problems, the government can take the following measures:

- Amendments to legislation: introduction of requirements for localization of lighting equipment production for public procurement.
- Eliminating corruption risks: taking measures to ensure transparent conditions in the lighting equipment market, especially in cases of promotion of specific products, such as explosion-proof equipment. This includes avoiding schemes for importing uncertified products into the Ukrainian market, which undermines the position of local producers.
- Public procurement: lobbying for the interests of Ukrainian lighting equipment manufacturers in cases of financing infrastructure reconstruction projects, to ensure that national producers have access to government contracts and projects financed by international donors or partners.
- Procurement for defense needs: ensuring the procurement of lighting equipment for the Ministry of Defense, the Armed Forces of Ukraine and other military formations exclusively in accordance with NATO standards.
- Eliminate violations during the commissioning of facilities: It is important to ensure compliance with the requirements for the use of certified products in the construction and commissioning of new facilities. This will help avoid the use of low-quality products and support Ukrainian producers.
- «Industrial visa-free regime»: Accelerate the process of implementing the «industrial visa-free regime» with the EU, which provides for the recognition of Ukrainian product safety certificates in the EU.
- Lobbying for interests at the international level: Supporting Ukrainian companies in promoting their products on international markets through lobbying government agencies, such as Ukrainian embassies and consulates.

4. Cooperation and strategic benefits for the EU. Negotiating positions

The potential for cooperation with the EU in the lighting equipment sector lies in access to investment, joint projects with European companies, technology exchange, certification funding, and the possibility of participating in the reconstruction of EU infrastructure facilities. Cooperation will also facilitate the integration of Ukrainian producers into European supply chains.



PRODUCTION OF WIND TURBINES

Information sheet

Wind power is second only to solar power in the national renewable energy sector in terms of total installed capacity. However, it is important to note that wind power made the largest contribution to the expansion of Ukraine's green energy mix in 2021. The share of new wind power capacities commissioned before the outbreak of full-scale war amounted to 30.6%, which corresponds to 358.8 MW, which is 2.5 times more than in 2020 (144.2 MW). Thus, by the end of 2021, the total installed capacity of the wind energy sector reached 1,672.9 MW. At the beginning of the war, Ukraine had 34 wind farms or 699 wind turbines with an average unit capacity of 3.5 MW.

Since the outbreak of the large-scale war, according to the Ukrainian Wind Energy Association, more than three-quarters of wind power capacity has been shut down. Out of a total of 1,673 MW, approximately 1,462 MW of Ukrainian wind farms are out of service.

Currently, the share of wind power in Ukraine's total RES balance is 21.7%, making it the second largest after solar power. About 71% of wind power capacities are located in the temporarily occupied territories and do not supply electricity to the United Energy System (UES) of Ukraine.

According to the strategic plans of the Ministry of Energy of Ukraine, the total capacity of the wind energy sector is expected to reach 10 GW by 2032, which is quite achievable given the projects that have already been developed or are under development.

A significant example of such projects is the launch of a wind turbine manufacturing facility by Friendly Wind Technology LLC in Zakarpattia. It is the only national manufacturer of multi-megawatt wind turbines, which plans to produce up to 20 turbines per year with a unit capacity of 4.8 to 5.5 MW. In 2023, the company began construction of the first wind farm in Zakarpattia with a capacity of about 80 MW. In total, the company plans to build more than 500 MW of new capacity.

It is worth emphasizing that the development of national wind turbine production is important not only for renewable energy but also for the machine-building sector, contributing to the strengthening of Ukraine's energy independence and economic recovery.

However, despite the significant potential of the industry, further development of wind energy depends on addressing a number of challenges. In particular, this applies to the repayment of debts under the feed-in tariff and the introduction of incentives that would support the stable development of the market.

Position of domestic producers

Fuhrländer WINDTECHNOLOGY

1. State of the industry and prospects for exports to the European Union market

The Ukrainian wind energy market has significant growth potential, especially due to government support, international investment, and global trends. Domestic factors, such as recovery from the war and the implementation of the National Renewable Energy Action Plan until 2030, are driving the market. Ukraine has a favorable geographical location, favorable climatic potential in the Carpathian and Black Sea and Azov coasts, as well as opportunities for localizing the production of wind turbine components. The only national manufacturer of multi-megawatt

wind turbines, Friendly Wind Technologies LLC, will provide 40% of localization starting in 2025. In the context of deepening cooperation with the EU and modernization of production facilities, there are significant prospects for entering the EU market.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main barriers for Ukrainian wind power producers include:

- Certification requirements: European markets have high standards, and Ukrainian producers have to be accredited by European laboratories, which is an expensive procedure;
- logistical difficulties: to ensure timely delivery of components and finished plants, the logistics infrastructure needs to be improved, which is a significant challenge for Ukrainian enterprises;
- Financial barriers: the high costs of introducing the latest technologies and attracting foreign investment to modernize production facilities are a serious barrier to production expansion;
- Competition with European companies: European companies have access to more financial resources and support programs, which makes it difficult for Ukrainian producers to compete in the EU market.

3. Ways to solve problems and the role (support) of the Government

The government can take the following measures to develop the production of wind turbines and their entry into the EU market:

1. **Financial support:**

- Introducing preferential lending terms to expand production capacity and introduce new technologies.
- Provide tax incentives to companies engaged in the production of wind turbines to reduce production costs and stimulate exports.

2. **Infrastructure development:**

- Investing in the modernization of power grids to integrate new wind power capacities.
- Improving the transportation infrastructure to optimize the delivery of components and finished wind turbines.

3. **Education and training:**

- Development of specialized programs in higher education institutions to train qualified personnel in the field of wind energy.
- Creating professional development programs for industry employees to ensure compliance with European standards.

4. **International cooperation:**

- Involvement of Ukrainian enterprises in international wind energy development programs, which will help to increase competitiveness in the EU market.

5. **Legislative initiatives:**

- Bringing Ukrainian legislation in line with European standards in the field of renewable energy.
- Introduce regulatory incentives to support the production and deployment of wind power plants.

6. **Technological clusters:**

- creation of technological clusters for the development of new technologies in wind energy, which will attract investment and ensure local production of components for wind turbines.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Opportunities for cooperation with the EU and European companies:

- Financing and investment: European banks (EBRD) can provide financing for the construction of new wind farms and infrastructure modernization in Ukraine, which will allow the development of the renewable energy sector.
- Technological cooperation: Joint projects with European companies will allow Ukraine to introduce the latest technologies in the production of wind turbines.

Strategic benefits for the EU:

- Access to a promising market. Cooperation with Ukraine will allow European companies to access a fast-growing wind energy market with great potential.
- Reduced production costs. Locating production in Ukraine will help reduce the cost of building wind farms and increase the competitiveness of European companies in the global market.

Key arguments for negotiating positions:

- Investing in sustainable development. Joint investments in wind energy will allow the EU to achieve its climate goals and reduce its dependence on fossil fuels.
- Technological integration. The use of European technologies in Ukrainian production will help create high-quality and competitive products for both markets.



PRODUCTION OF CABLE PRODUCTS

Information sheet

The cable and wire industry is key to the energy supply of the economy and is characterized by a high level of added value. All types of modern cable products are manufactured in Ukraine, but low-voltage cables account for the largest production volumes.

Since the outbreak of active hostilities in Ukraine, production of high-voltage cables has significantly decreased due to the destabilization of enterprises and increased military risks. Nevertheless, demand for high-voltage cables remained high due to the need to rebuild the destroyed energy infrastructure. As a result, in 2022, the production of cable products in Ukraine decreased by almost a third compared to 2021, and one of the biggest problems of the industry was the shortage of labor, which in 2022 decreased by 7.5% compared to the previous year.

Due to the war in Ukraine, the destruction of production facilities, the relocation of enterprises, labor shortages and unstable supply chains, the balance of foreign trade in cable products has almost tripled. In 2022, the volume of exports of cable and wire

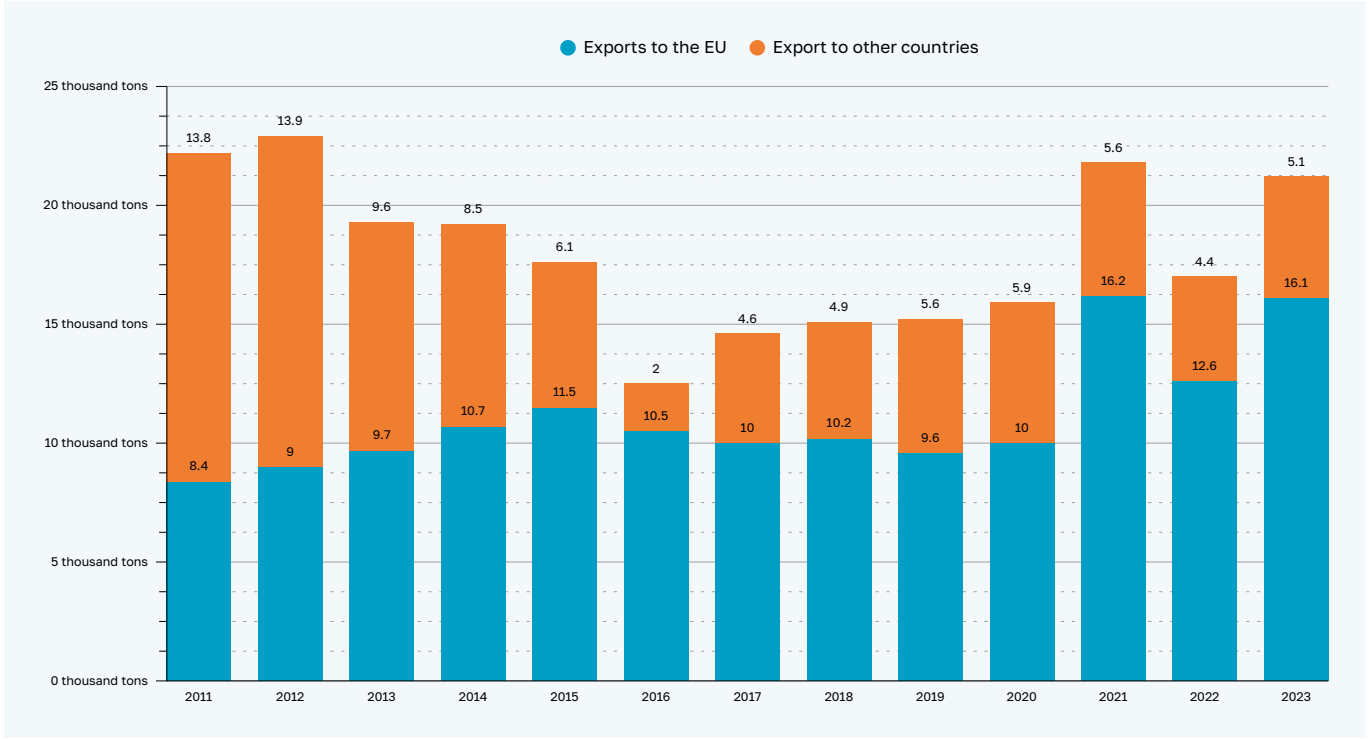


Fig. 2.38. Dynamics of exports from Ukraine of cable and wire products (HS 8544 42, 8544 49, 8544 60) to the EU and other countries

products decreased by 22.3% compared to the previous year, from 22 to 17 thousand tons, respectively.

In 2023, Austria and Germany became the largest importers of Ukrainian cable and wire products, accounting for 36% of total exports (Fig. 2.38).

In 2023, the share of electrical conductors of Ukrainian origin in total EU imports was 2.1%. Most of all, Ukrainian cable products under HS code 854449 were exported to the EU countries.

The undisputed leaders among the countries exporting electrical conductors to the EU are China and Turkey, whose import shares in 2023 amounted to 32.1% (247 thousand tons) and 23% (177 thousand tons), respectively.

Position of domestic producers

ODESKABEL

1. State of the industry and prospects for exports to the European Union market

Despite many challenges for the company, such as a lack of working capital, complex logistics chains for both material supply and sales, a difficult situation in the energy sector and a shortage of human resources, the production of cable and wire products remains a promising sector of the economy.

The demand for the restoration of destroyed infrastructure facilities, especially energy facilities (in which cable and wire products for various purposes are an important component) is already substantial, and will be even greater in the post-war reconstruction of the country. The projected development of the country's own military-industrial complex, which is also a consumer of CATV, will create additional demand and add to the existing consumption.

Given the trends in global markets, the European market remains the main market for Ukrainian cable and wire products. Despite attempts to diversify supplies, non-EU countries currently account for a small share of domestic exports of cable and wire products.

2. Main problems and barriers to entering (or expanding presence in) the European market

One of the reasons that does not allow increasing the presence of domestic producers in the EU market is the unsigned ACAA agreement. If signed, it will allow trade in goods between Ukraine and the EU in the sectors covered by this Agreement and will be conducted on the same terms as trade in goods between EU member states.

3. Cooperation and strategic benefits for the EU. Negotiating positions

Increased sales to any market will have an undeniably positive socio-economic impact, as economic growth entails the development of both human capital and infrastructure and innovation. Taking into account the directly proportional impact of our activities on related industries (materials, energy resources, etc.), we can state that any impact, both positive and negative, affects the industries interconnected with the production of the checkpoints.

Given the problems faced by the industry when exporting products through European countries (for example, the blocking of the border with Poland), the transportation sector is also a priority in cooperation with the EU, as it is the main «artery» through which businesses in the industry can operate.



OTHER INDUSTRIAL GOODS



COMMERCIAL EQUIPMENT

Information sheet

Domestic production of commercial equipment has been actively developing since the early 2000s, when Ukraine experienced a rapid growth in the number of shopping centers, catering establishments, supermarkets, etc. In response to this demand, Ukrainian furniture and appliance companies launched new production areas focused on meeting the needs of retailers, restaurants, food and non-food retail chains.

Over time, Ukrainian commercial equipment began to meet international quality standards, which allowed domestic enterprises not only to operate steadily in the domestic market but also to start exporting their products. Ukrainian products became popular among Eastern European countries, the CIS and some EU countries.

The production of refrigeration commercial equipment has been particularly developed and has become an important element in the infrastructure of the retail and food industry. Ukrainian producers have adapted to the needs of the modern market, introducing innovative solutions, energy-efficient technologies and the latest materials. This has contributed not only to an increase in domestic production, but also to the expansion of export opportunities.

Before the war, the refrigeration market in Ukraine was showing steady growth. The main consumers were retail chains, food processing companies, restaurants and cafes.



Fig. 2.39. Dynamics of exports from Ukraine of refrigeration commercial equipment (HS 841850) to the EU and other countries

However, with the outbreak of the war, many businesses were forced to shut down or reduce their operations, which affected demand. At the same time, there were changes in the regional distribution of demand, as businesses moved their facilities to other regions of Ukraine.

russia's occupation of the ORDLO and Crimea also had a negative impact on foreign trade in refrigeration equipment. In 2015, exports fell to a record low, down 5.5 times compared to 2013, which was caused by a sharp decline in sales to the russian market. Gradually, domestic companies began to look for other trading partners, increasing their supplies to the EU.

Thus, in 2021, Poland became the main foreign market, where 3 thousand tons of equipment were exported, accounting for more than 34% of all exports of this product category.

In 2023. Ukraine exported 2.2 thousand tons of refrigeration equipment to the European market, which is 43.5% less than in the previous year and 63.3% less than the record volume of supplies to the EU in 2021. Among the countries of the world, the main supplies were made to Kazakhstan (1.3 thousand tons; 27%) and Poland (about 1 thousand tons; 19%) (Fig. 2.39).

According to the results of 2023, the share of products of Ukrainian origin in the EU's total imports of refrigeration equipment amounted to 2.2%. China and Turkey remain the undisputed leaders in the supply of these products to the European market, with a share in EU imports of 60% (61.5 thousand tons) and 30% (31 thousand tons), respectively.

Position of domestic producers



1. State of the industry and prospects for exports to the European Union market

The retail equipment market in Ukraine has been significantly affected by the economic consequences of the war, such as the destruction of infrastructure, reduced purchasing power and migration. Domestic demand for commercial equipment has decreased due to the temporary occupation of part of the country and economic difficulties. However, there are prospects for growth in the medium and long term. The main factors supporting this optimism are the need to restore destroyed retail facilities, the development of online trading, which stimulates demand for warehouse and logistics center equipment, and the desire of retailers to modernize.

Internationally, the European Union market is very promising for Ukrainian retail equipment manufacturers. European retailers are actively investing in the modernization of their retail space and equipment, which creates a significant demand for Ukrainian products. Geographical proximity to the EU, short logistics leverage, and favorable trade conditions, including low duties due to the EU Association Agreement, also contribute to successful exports.

2. Main problems and barriers to entering (or expanding presence in) the European market

The main problem for Ukrainian producers is high competition in the EU market. Ukrainian producers have to compete not only with local EU companies, but also with players from China and Turkey, which offer competitive products on price. While Ukrainian companies can take advantage of the benefits provided by the Association Agreement, other factors, such as technical and regulatory requirements, remain significant barriers to entering the European market.

In addition, the complexity of the bureaucratic procedures that accompany exports can delay the entry of products into the market and increase costs. Obtaining the necessary permits and certificates requires significant time and financial resources. Another challenge for producers is logistical difficulties, in particular with the delivery of goods to the European market in the context of unstable infrastructure and war.

3. Ways to solve problems and the role (support) of the Government

The Ukrainian government can help retail equipment manufacturers by implementing the following measures:

- Financial support: Providing government loans, grants, and export risk insurance can significantly help modernize production, increase export potential, and protect producers from the risk of non-payment by international partners.
- Simplification of export procedures: Reducing bureaucratic obstacles, simplifying the procedure for obtaining necessary permits and certificates will significantly improve the conditions for exporters.
- Infrastructure development: The government could invest in the development of logistics infrastructure to facilitate the delivery of goods to EU countries.
- Support for participation in international exhibitions: Organizing the participation of Ukrainian producers in international exhibitions and fairs in the EU through collective stands will help promote products and increase brand awareness. Marketing campaigns and information support can help Ukrainian producers strengthen their position on the European market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Cooperation in this area can be mutually beneficial for several reasons:

- Participation in EU programs and initiatives: It is important for Ukrainian companies to participate in EU support programs for small and medium-sized businesses. This will give Ukrainian producers the opportunity to compete on equal

terms with European companies and participate in the latest research and innovation projects.

- Cooperation with specialized European associations and organizations: This will allow you to share experiences, obtain market information and establish contacts with potential partners.
- Attracting investment: European investors could play an important role in modernizing Ukraine's production facilities, which would be beneficial for both sides. Investments in the Ukrainian commercial equipment industry will increase its competitiveness and ensure stable exports of quality products to the EU.



PRODUCTION OF BOILERS

Information sheet

In recent years, the heating boiler market in Ukraine has shown a steady upward trend, with average sales growth rates of around 5% annually. This is due to the growing need for modernization of heating systems, as well as high demand for energy-efficient solutions, which contributes to the stable growth of the industry.

Analyzing the heating equipment market in Ukraine, it is worth noting the dominant role of imported boilers. Consumers mostly prefer gas, electric and solid fuel boilers imported from abroad. This is primarily due to the quality characteristics of these products, despite their much higher price compared to domestic products.

Until 2014, Ukrainian producers were actively exporting steam boilers and central heating boilers, generating annual foreign sales of more than $70 million on average. However, with the outbreak of the war, the situation changed dramatically. The most significant impact was the loss of the main sales market - the russian federation, which led to a decrease in exports of domestic boilers by almost 8 times. In particular, exports fell from $81.4 million in 2013 to $10.3 million in 2023. At the same time, the share of exports of steam boilers (HS 8402) in the total exports of this product category decreased by half from 30% in 2013 to 15% in 2015.

Thus, since 2015, the main export segment of Ukrainian boilers has been focused on central heating boilers (HS 8403), whose share has consistently exceeded 90% of total exports of heating equipment.

Exports to the European Union also suffered a decline, decreasing by 36.5% in 2023 compared to 2014 (from $12.3 million to $7.8 million).

In 2023, the key importers of Ukrainian central heating boilers were Moldova, Germany, Latvia, Kazakhstan, and Romania, indicating a certain diversification of export markets in the new geopolitical realities (Fig. 2.40).

According to the results of 2023, Ukraine's share in the total imports of central heating boilers (HS 8403) by the EU countries amounted to less than 1% (7.6 million USD). Instead, Turkey is the undisputed leader-supplier of these products to the European market, with a share of 54% (USD 420 million) in total EU imports in 2023.

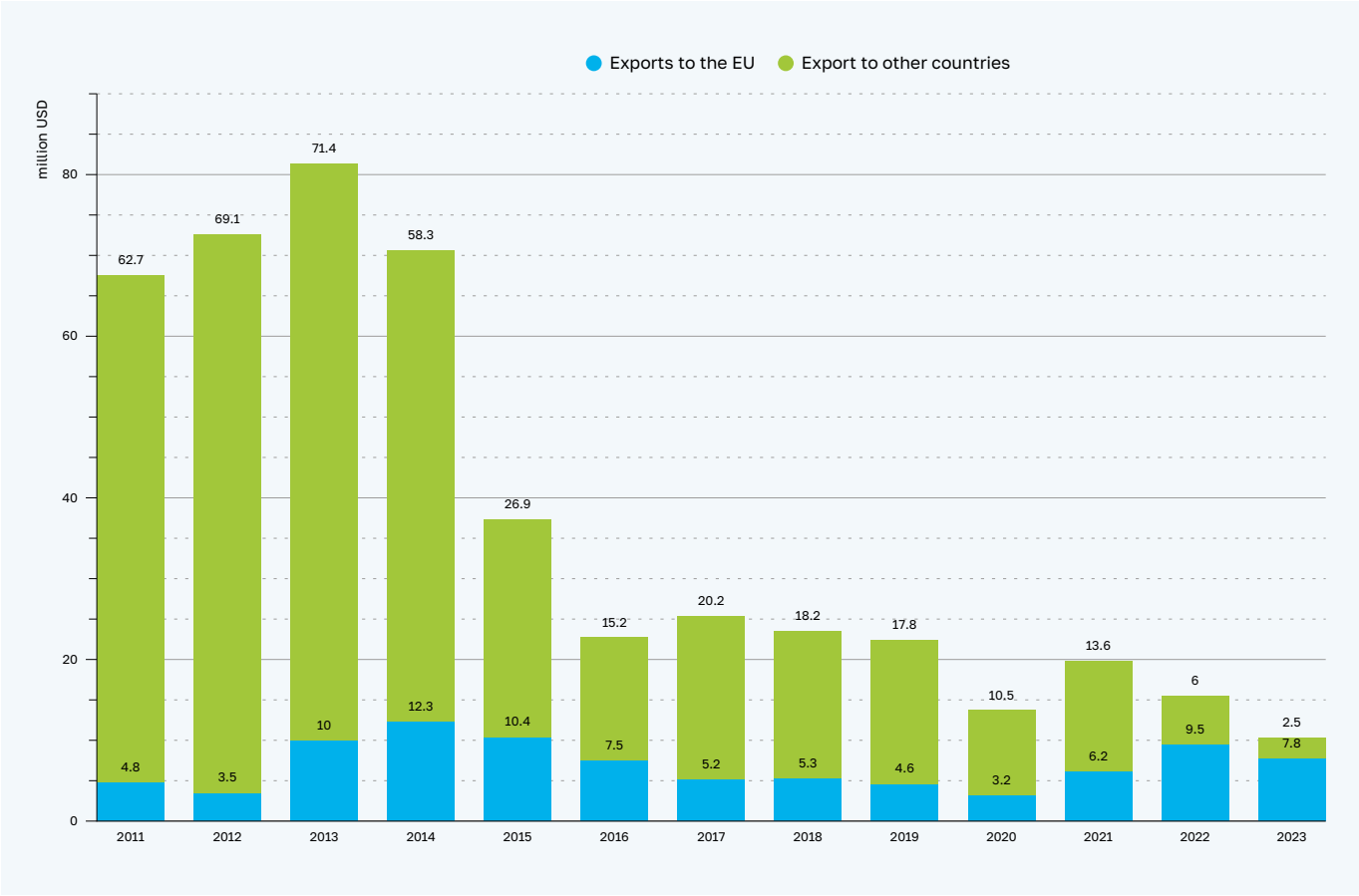


Fig. 2.40. Dynamics of exports from Ukraine of boilers (HS 8402, 8403) to the EU and other countries

Position of domestic producers

1. State of the industry and prospects for exports to the European Union market

The prospects for consumption in the domestic boiler market are quite pessimistic until the war ends and are decreasing every year. Sales of steel domestic boilers in the Ukrainian market fell from 300-350 thousand in 2013 to 35-40 thousand in 2023, i.e., 8-10 times. This had a rather negative impact on Ukrainian producers.

For industrial boilers, there has even been some activity the market of fire-tube boilers and block-modular boilers in recent years due to tenders under programs and grants from donors. Exports of boilers fell sharply to the CIS countries and increased slightly to Poland and the Baltic states. In the future, it is obvious that exports will develop to the same Eastern European countries with a further decrease of exports to the CIS countries. In terms of exports to Europe, this applies to boilers with steel heat exchangers or heat exchangers themselves in the vast majority of solid fuel boilers. As for domestic and industrial boilers with steel heat exchangers, Ukrainian producers have prospects in the European market due to the price of metal and labor, as well as traditions in this industry sector.

2. Main problems and barriers to entering (or expanding presence in) the European market

Europe can stimulate sales of Ukrainian products by removing customs duties or granting VAT benefits, simplifying regulatory and permitting documentation for Ukrainian boilers in their domestic markets, and facilitating direct orders for subcontracts for heat exchangers from Ukrainian manufacturers, primarily for steel heat exchangers.

3. Ways to solve problems and the role (support) of the Government

It is highly desirable that the government has a targeted program to increase exports of boilers and similar engineering products. For this purpose, it is necessary to have incentives for export-trade financing and logistics and customs support, as well as simplification of obtaining permits and certificates for the European market.

4. Cooperation and strategic benefits for the EU. Negotiating positions

Ukraine needs to rebuild not only its infrastructure but also to increase the number of jobs in order to reduce the outflow of working-age people to Europe, so it is advisable to take measures to preserve jobs in Ukraine by supporting the production of competitive products that will be in demand in the EU markets.

TELECOMMUNICATIONS



IMPLEMENTATION OF THE GDPR IN UKRAINE: THE WAY TO COMPLIANCE WITH EUROPEAN STANDARDS

Information sheet

The ongoing implementation of European standards and the process of approximation to full EU membership require that Ukraine's personal data protection regulation be updated to European standards. The Ukrainian data privacy environment has changed a lot since the last update of the Law of Ukraine «On Personal Data Protection», which was drafted in 2010 and was based on Directive 95/46/EC of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data of 24 October 1995, which has now been repealed and replaced by the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (hereinafter referred to as the General Data Protection Regulation or GDPR).

According to Article 15 of the Association Agreement, «Ukraine and the European Union have agreed to cooperate to ensure an adequate level of personal data protection in accordance with the highest European and international standards, in particular the relevant documents of the Council of Europe.» By the Agreement on Cooperation between Ukraine and the European Organization for Justice (ratified in 2017), namely Article 11, Ukraine has undertaken to guarantee a level of personal data protection equivalent to that resulting from the application of the principles contained in the Council of Europe Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data of 28 January 1981 and subsequent amendments, as well as the principles laid down in the Eurojust Decision and the Eurojust Data Protection Regulation.

In the field of electronic communications, it is important to implement Directive 2002/58 of the European Parliament and of the Council of July 12, 2002 on the processing of personal data and the protection of privacy in the field of electronic communications (Privacy and Electronic Communications Directive) (hereinafter referred to as Directive 2002/58), as well as the requirements of the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (Convention 108) into Ukrainian legislation.

In order to fulfill its obligations to implement the GDPR, the Verkhovna Rada of Ukraine registered draft laws No. 8153 of 25.10.2022 «On Personal Data Protection» and No. 6177 of 18.10.2021 «On the National Commission on Personal Data Protection and Access to Public Information». However, there are currently no trained personnel in Ukraine with sufficient education and competence to hold positions in the future regulatory body. At the same time, the law gives the commission's employees broad discretionary powers without proper control tools. Taken together, these factors create a risk of pressure on business from incompetent staff.

According to European experts, both draft laws require significant revision.

Position of service providers in the field of electronic communications

1. The need to implement the GDPR in the field of electronic communications in Ukraine

A systematic approach to regulation is required to implement the EU's strategic initiatives to implement the GDPR in the field of electronic communications in Ukraine. For the successful implementation of the GDPR in the field of electronic communications in Ukraine, it is important not only to adapt national legislation, but also to ensure the availability of institutional and methodological support that will create favorable conditions for the development of the industry in accordance with European standards.

A systematic approach should include the following key elements:

1. Create a legal framework that sets uniform requirements for all business entities, regardless of their size or sector. This will avoid legal gaps and ensure a level playing field for businesses. This is realized through the adoption of the Law of Ukraine «On Personal Data Protection». The law must comply with European data protection standards and ensure transparency in the collection, processing and storage of users' personal data.

2. In order to properly implement the GDPR, it is necessary to ensure the effective functioning of the authority responsible for personal data protection. It should develop clear explanations and provide advice on the application of the new legislation. This will allow companies to better understand the requirements and apply them correctly in practice.

3. Providing time to implement new approaches. For effective implementation of the GDPR, it is necessary to provide adequate time for businesses to adapt to the new requirements. This transition period will allow all entities providing services to end users to adjust their activities in accordance with the law and the new standards of personal data protection.

Adequate Fines and Sanctions. To ensure effective regulation, fines for violations must correspond to the severity of the consequences resulting from such breaches. At the same time, these fines should be balanced with the country's economic situation to avoid imposing an undue financial burden on businesses, especially during challenging economic conditions.

2. Why the Electronic Communications Rules do not address the issue of personal data protection

From the point of view of creating optimal conditions for the development of the electronic communications industry in Ukraine and the implementation of EU strategic initiatives, the issue of consumer personal data protection cannot be resolved at the level of the Rules for the provision and receipt of electronic communications services. The main reasons for this are as follows:

2. The rules for providing and receiving electronic communication services do not cover all types of service providers. In particular, they do not regulate the activities of OTT service providers (such as Viber, WhatsApp, Telegram), which also collect and process a significant amount of personal data of users. Thus, without appropriate legislative regulation, these providers remain outside the jurisdiction of the Rules, which creates a gap in the personal data protection system. The inclusion of provisions in the Rules that impose obligations on electronic communications operators without the introduction of such regulation at the level of the Law will cause a part of the revenue from the Ukrainian telecom market to OTT service providers (abroad) and will not solve the issue of consumer protection from spam and advertising messages.

2. The rules apply solely to the regulation of relationships in the field of electronic communications and are overseen by a dedicated regulatory body—the National Commission for State Regulation in the Field of Electronic Communications (NCEC). However, the protection of personal data falls under the jurisdiction of another body—the Commissioner of the Verkhovna Rada for Human Rights, which currently supervises data protection. In the future, a specialized regulatory body is planned to be established for this purpose. These two regulators have distinct functions, so their powers must be clearly delineated to prevent conflicts of interest and duplication of regulatory responsibilities.

If the issue of personal data protection is partially regulated by the Rules, there will be a risk of double punishment for the same violation. This is contrary to Article 61 of the Constitution of Ukraine, which prohibits bringing to justice twice for the same offense. Violation of the Rules on personal data protection will be treated as a violation in the field of electronic communications and as a violation in the field of personal data protection.

3. The role of the Government in addressing the issue of consumer personal data protection

The protection of personal data in the field of electronic communications requires a systematic approach and the adoption of comprehensive legislation that will ensure uniform standards for all market participants, including OTT services. This will facilitate harmonization with European requirements (such as the GDPR) and create a more transparent and secure personal data protection system in Ukraine.



INTRODUCTION OF ROAM LIKE AT HOME (RLAH) BETWEEN UKRAINE AND THE EU

Information sheet

If we go back to the history of the RLAH model in the EU, its launch began 17 years ago and it was a truly European process: balanced, taking into account the interests of all parties. All this time, the regulatory framework and technical requirements were being developed, economic prerequisites and tariff settings were taken into account: both at the level of mutual settlements between operators and at the level of tariffs for consumers. For example, over the course of 17 years, the voice call termination fee has been gradually decreasing from 30 euro cents to 2.2 euro cents (as of 2024). The wholesale tariffs for SMS and data traffic have also been gradually reduced. The information is presented in the table:

Services	Regulation (EC) No 717/2007	Regulation (EU) No 531/2012	Commission proposal – June 2016	Parliament ITRE committee amendments – Nov. 29, 2016	Council general approach – Dec. 2, 2016	Parliament-Council trilogue agreement – Feb. 1, 2017	Regulation – 2022/612
Voice (outgoing)	**Aug 30:** • 2007: 30 €cent/min • 2008: 28 €cent/min • 2009: 26 €cent/min	**Jul 1:** • 2012: 14 €cent/min • 2013: 10 €cent/min • 2014: 5 €cent/min	4 €cent/min	3 €cent/min	3.353 €cent/min	3.20 €cent/min	**Apr 6, 2022:** 2.2 €cent/min **Jan 1, 2025:** 1.9 €cent/min
SMS	-	-	1 €cent/SMS	1 €cent/SMS	1 €cent/SMS	1 €cent/SMS	**Apr 6, 2022:** 0.4 €cent/ SMS **Jan 1, 2025:** 0.3 €cent/ SMS
Data	-	-	8.5 €/GB	**Jun 15, 2017:** 4 €/GB **July 1:** • 2018: 3 €/GB • 2019: 2 €/GB • 2020: 1 €/GB	**Jun 15, 2017:** 10 €/GB **July 1:** • 2018: 8.50 €/GB • 2019: 7 €/GB • 2020: 6 €/GB • 2021: 5 €/GB	**Jun 15, 2017:** 7.70 €/GB **Jan. 1:** • 2018: 6 €/GB • 2019: 4.50 €/GB • 2020: 3.50 €/GB • 2021: 3 €/GB • 2022: 2.50 €/GB	**Apr 6, 2022:** 2 €/ GB **Jan. 1:** • 2023: 1.8 €/GB • 2024: 1.55 €/GB • 2025: 1.3 €/GB • 2026: 1.1 €/GB • 2027: 1 €/GB

There is also the experience of the Western Balkan countries (Albania, Kosovo, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia), which in 2019 signed a national roaming agreement among themselves, were supposed to reduce the cost of roaming calls between their countries by 2021 and join the EU RLAH as soon as tariffs reached tariffs for consumers similar to those in the EU. According to the European Commission's July 2021 report (https://op.europa.eu/en/publication-detail/-/publication/4d8e9a11-d71c-11ec-a95f-01aa75ed71a1)), wholesale roaming charges in these countries were to be reduced from 5 euro cents (July 1, 2019) to 3.2 euro cents (January 1, 2026).

In other words, the Western Balkan countries were granted a transition period of seven years to reduce the wholesale terminal tariff and bring it into line with the EU.

Prior to the full-scale invasion, Ukraine was gradually preparing to join the common roaming area with the EU. But no one expected such rapid processes that began in February 2022. Before that, we were talking about a 3-5-year perspective.

However, on February 24, 2022, Ukraine realized that «affordable roaming» was a vital necessity given the number of refugees leaving for Europe every day. Mobile operators immediately began negotiations with European operators and at the end of March 2022 agreed on preferential terms with them and launched affordable tariffs for Ukrainian subscribers on the RLAH principle.

The Joint Statement of European and Ukrainian operators on helping refugees stay connected played an important role in providing Ukrainians with affordable communications. It was made possible by the national telecom regulator NCCIR, the European Commission and the European regulator BEREC. This document helped Ukrainian operators to maintain favorable terms of cooperation with EU operators during 2022-2024.

On April 24, 2023, Decision No. 1/2023 of the EU-Ukraine Association Committee in the Trade Configuration «On Amendments to Annex XVII3 (Rules applicable to telecommunications services) of Annex XVII to the Association Agreement... «1 was adopted, according to which Ukraine and the EU officially fixed the terms and conditions for Ukraine to acquire the «EU internal market roaming regime», which millions of Ukrainian refugees have been

using since April 2022 both in Ukraine and in the EU.

In order to fulfill its obligations under the EU-Ukraine Association Agreement, Ukraine must implement the EU regulations that define the RLAH regime in its national legislation. Currently, Ukraine has already adopted the relevant Law of Ukraine and its bylaws, which allows Ukraine to apply to the European Commission for verification of the completeness of the adaptation of legislation and, if a positive conclusion is received, to determine the date when the RLAH parity regime between Ukraine and the EU will come into force.

Position of Ukrainian operators

1. Prospects for the implementation of RLAH during martial law

Due to the hostilities and the threat to life in Ukraine, a significant number of citizens have left the country and this creates a significant distortion in the consumption of services during the implementation of RLAH, compared to peacetime conditions. In particular, this has an impact on the following important aspects of service use:

- First, when European operators and regulators developed requirements for a common roaming area, they created it for tourists - temporary stays abroad. Usually, it was «two to three weeks». The model most likely did not foresee that people would use these conditions constantly, for many months. Therefore, if their subscribers use Roaming as if they were at home for several months, European operators may even block the services for a number.

- Secondly, in times of war, there is a significant imbalance in terms of Ukrainian consumers staying in the EU and EU consumers in Ukraine. During the war, EU subscribers do not travel to Ukraine because of the threat to their lives, and many Ukrainian consumers try to stay safe by staying in the EU. This creates a constant imbalance in roaming traffic and significantly affects the economic mutual settlements between Ukrainian and EU operators. With fixed rates for mutual settlements between operators, this traffic imbalance allows EU operators to make money, while Ukrainian operators will suffer losses.

2. Financial implications of RLAH implementation for Ukrainian operators

Ukrainian operators will lose approximately UAH 2.9 billion in revenues over the period 2025-2027. These revenues will therefore become an additional financial benefit for EU operators.

The only reason why RLAH creates unfavorable economic conditions for Ukraine is the war in Ukraine. Migration processes significantly affect the implementation of the model that was created for peacetime conditions. After the war is over, when Ukrainian citizens return home and EU citizens can come to Ukraine without fear for their lives, RLAH will be equally profitable for both EU and Ukrainian operators.

3. The role of the Government in protecting the interests of national operators

An agreement with the EU should be reached and documented in official documents that the RLAH will be introduced 6 months after the end of martial law in Ukraine or a schedule should be approved for the gradual reduction of traffic termination fees for Ukrainian operators and bringing them to the EU level, which will smooth out the negative economic effect on the national market.

If possible, until the RLAH is introduced, the Joint Statement of European and Ukrainian operators on helping refugees stay connected should be extended, which will allow Ukrainian operators to maintain favorable tariff conditions for Ukrainian citizens staying in the EU.



SUMMARIZING THE RESULTS OF THE BUSINESS SURVEY

Ukrainian industry is facing numerous challenges caused by the war, including the destruction of infrastructure, power outages, logistical problems, loss of production in the occupied territories, lack of qualified personnel, insufficient government support and other factors that significantly complicate the recovery and development of domestic production. These difficulties affect virtually all sectors of industry, including mechanical engineering, metallurgy, chemical, woodworking, food processing, and other industries.

One of the most important problems affecting most sectors is energy supply disruptions and infrastructure destruction. Almost all industries are heavily dependent on a stable supply of energy, which has been affected by the loss of generating capacity and infrastructure damage. Restoration of the energy infrastructure is a prerequisite for the normalization of these sectors.

Also important is the issue of logistical difficulties caused by the destruction of transportation routes, including railways and seaports. This problem is particularly acute for export-oriented industries such as metallurgy, agricultural machinery, cement, and food processing. Rebuilding the transportation infrastructure, including railways and ports, as well as expanding the capacity of the western borders, is essential to ensure stable exports.

Another critical issue is the lack of qualified personnel, which negatively affects all sectors of industry. Mobilization and emigration have led to a significant reduction in the labor force.

However, despite the difficult economic and social situation caused by the war, many industries are trying to continue to develop production by modernizing their production facilities, introducing innovations and searching for new markets. This is especially true for sectors such as agricultural machinery, machine tools, and woodworking. For example, the agricultural sector is actively looking for new technological solutions to improve production efficiency, in particular through the introduction of precision farming. Steady demand for agricultural machinery, driven by the need to modernize the agricultural industry, is driving investment in research and development of new solutions that will increase the competitiveness of Ukrainian producers.

Many sectors of the Ukrainian industry expect a significant increase in production after the war, but this requires certain actions on the part of the government, including changes in legislation. For example, the introduction of requirements for localization of production and elimination of corruption risks in product certification. It is important that the state provide a regulatory framework to support domestic producers through certification and implementation of relevant quality standards, while providing financial and technical assistance for their implementation. State support in the form of procurement of special equipment for military facilities can also help to increase production capacity.

One of the key trends in many sectors is the tightening of environmental requirements and the development of renewable energy sources. For example, wind energy has great potential thanks to government support and foreign investment. The National Renewable Energy Action Plan until 2030 envisages a significant increase in generating capacity in this area, which opens up new opportunities for attracting investment and developing the domestic market.

Another important trend is the export orientation of many sectors as a key factor in economic stability. For example, the rubber products sector expects post-war export growth of 15-40% annually due to economic recovery. However, this potential can only be realized if barrier-free access to European markets and improved logistics are maintained. Government support in this area should include work on new trade agreements with the EU, which will allow Ukrainian producers to compete on equal terms with European companies.

The steel industry has traditionally played an important role in the Ukrainian economy, and its recovery potential depends on stable energy supply and access to maritime logistics routes. In addition, to ensure competitiveness in the European market, it is important to maintain barrier-free access to the EU, avoiding the introduction of CBAM mechanisms. At the same time, government support in the form of tax breaks, subsidies, and access to concessional financing is key to the sector's recovery.

The woodworking industry in Ukraine is in stable demand both domestically and abroad, especially in the production of construction materials and high value-added furniture. One of the key factors behind the development of this industry is the moratorium on the export of unprocessed timber, which has allowed the creation of significant production capacity in Ukraine. Manufacturers of frame houses and panels (SIPs) are

actively expanding exports to the European Union. However, the industry's prospects remain at risk due to the possible end of the moratorium in 2025. This may lead to higher raw material costs, which will reduce the competitiveness of Ukrainian producers. To avoid these negative consequences, it is important that the state supports the woodworking industry by extending the moratorium or introducing new mechanisms to support production within the country. In addition, the active development of the construction of timber frame houses and wooden panels indicates the prospects for investment in the woodworking industry. Government programs aimed at developing this industry can help balance demand and preserve jobs, as well as boost exports of high value-added products.

The recovery of Ukrainian industry depends to a large extent on effective government support. A coherent policy focused on modernizing production facilities and supporting exports will ensure stable economic growth and international competitiveness of Ukrainian enterprises in the postwar period.



THE STATE OF THE LABOR MARKET

skilled workers and engineering and technical specialists. That is why business representatives have been actively investing in the development of STEM education in Ukraine, the formation of new modern professional standards, and career guidance programs.

Prior to the full-scale invasion of Ukraine by russia, 90% of Ukrainian companies had begun to upgrade their production infrastructure and were actively implementing modern technologies in their production processes. This transition has led to an even greater demand for skilled workers, engineering and technical specialists who could install, maintain and repair expensive, modern industrial equipment (robots and automated systems), as well as create innovations.

In the context of a full-scale war and the personnel crisis it has caused, the labor market has exacerbated the already existing shortage of skilled workers. Thus, the Ministry of Economy of Ukraine estimates the labor market shortage at almost 30%.

The Federation of Employers of Ukraine, as the largest association of Ukrainian business, systematically monitors trends and characteristic changes in the Ukrainian labor market, in particular during the full-scale war.

The study «Labor Market in Ukraine 2022-2023. Status, trends and prospects»

Thus, in 2023, the results of the study «Labor Market in Ukraine 2022-2023. Status, Trends and Prospects» (available on the FEU website: https://fru.ua/ua/media-center/analytics/rinok-pratsi-v-ukrajini-2022-2023-stan-tendentsiji-ta-perspektivi). The study was conducted through a joint initiative of the State Employment Service of Ukraine, the Federation of Employers of Ukraine, the Ministry of Education and Science of Ukraine, and the Solidarity Fund PL. It is based on research supported by the European Bank for Reconstruction and Development (EBRD). Part of the study was supported by the EU4Skills program, funded by the European Union (EU), Germany, Finland, Poland, and Estonia. The findings of the study are based on the results of a representative survey of employers, which involved **almost 8 thousand enterprises and organizations** (excluding public administration). The report also takes into account the results of sectoral focus groups and in-depth interviews with more than **168 business representatives** from the most important sectors of Ukraine's economy.

According to the study, the unprecedented economic and migration crises were the main factors behind the deterioration of the situation in the Ukrainian labor market. By the end of 2022, the country's GDP decreased by more than 30%, the national currency depreciated significantly, prices rose, and the level of income fell significantly. At the same time, as a result of russia's full-scale aggression against Ukraine, there was a massive outflow of people abroad. In 2022, almost 8 million people left Ukraine, and almost 5 million more became internally displaced persons (IDPs).

The imposition of martial law and mobilization was another significant factor affecting the labor market. Conscription into the Armed Forces of Ukraine significantly affected the volume of hiring, led to changes in staff turnover, caused specific supply and demand patterns, and exacerbated labor market shortage.

Given the proximity to the active combat line, employment in industrialized regions - Kharkiv, Dnipro, Odesa, Mykolaiv, Kyiv regions and the city of Kyiv - declined.

In 2022, economically active enterprises mostly hired representatives of blue-collar occupations. In particular, machine and equipment maintenance workers were the most numerous in the overall structure of hired workers (28%).

The study showed that 9 out of the 10 most demanded professions are those trained in vocational education institutions. There is also a demand for medical professions, which indicates an extremely high need for qualified and auxiliary medical personnel.

According to survey conducted in February 2023, more than 77% of employers surveyed hired workers in 2022. Large and medium-sized enterprises needed workers the most (84% of large and 77% of medium-sized enterprises, respectively). At the same time, 58% of small businesses and only 32% of microenterprises reported hiring employees in 2022.

In 2022, almost 47% of surveyed enterprises hired people with disabilities, 46% hired IDPs, and 14% hired veterans. At the same time, employers noted an understanding of the prospects for increasing the number of veterans after the end of active hostilities. More than 30% of employers positively assessed the possibility of hiring more veterans.

In the overall structure of hired workers, the largest share of employees was in manufacturing (23.3%), trade (14.6%), healthcare (12.8%), and transport and logistics (12.4%).

Given the unprecedented challenges of the war, companies reduced the amount of employee training compared to previous years. A significant share of companies did not conduct any training at all, and those that continued to train their staff significantly optimized the process. Industry experts noted that budgets for employee training were cut by an average of 60-70%.

Research «Assessment of the labor market and demand for professional skills in Ukraine 2023-2024»

The next iteration was the study «Assessment of the Labor Market and Demand for Professional Skills in Ukraine 2023-2024», initiated by the State Employment Service, the Federation of Employers of Ukraine and Helvetas Ukraine. This is the first study in the history of the Ukrainian labor market that is representative at the level of regions and districts. Data for the study was provided by **33,056 companies** employing **2 million 145 thousand people.**

The research data is also displayed on an interactive dashboard.

Overall, 2023 was a much better year for Ukraine's economy than the previous one. After the collapse of the 2022 crisis, the country's economy stabilized and some segments began to

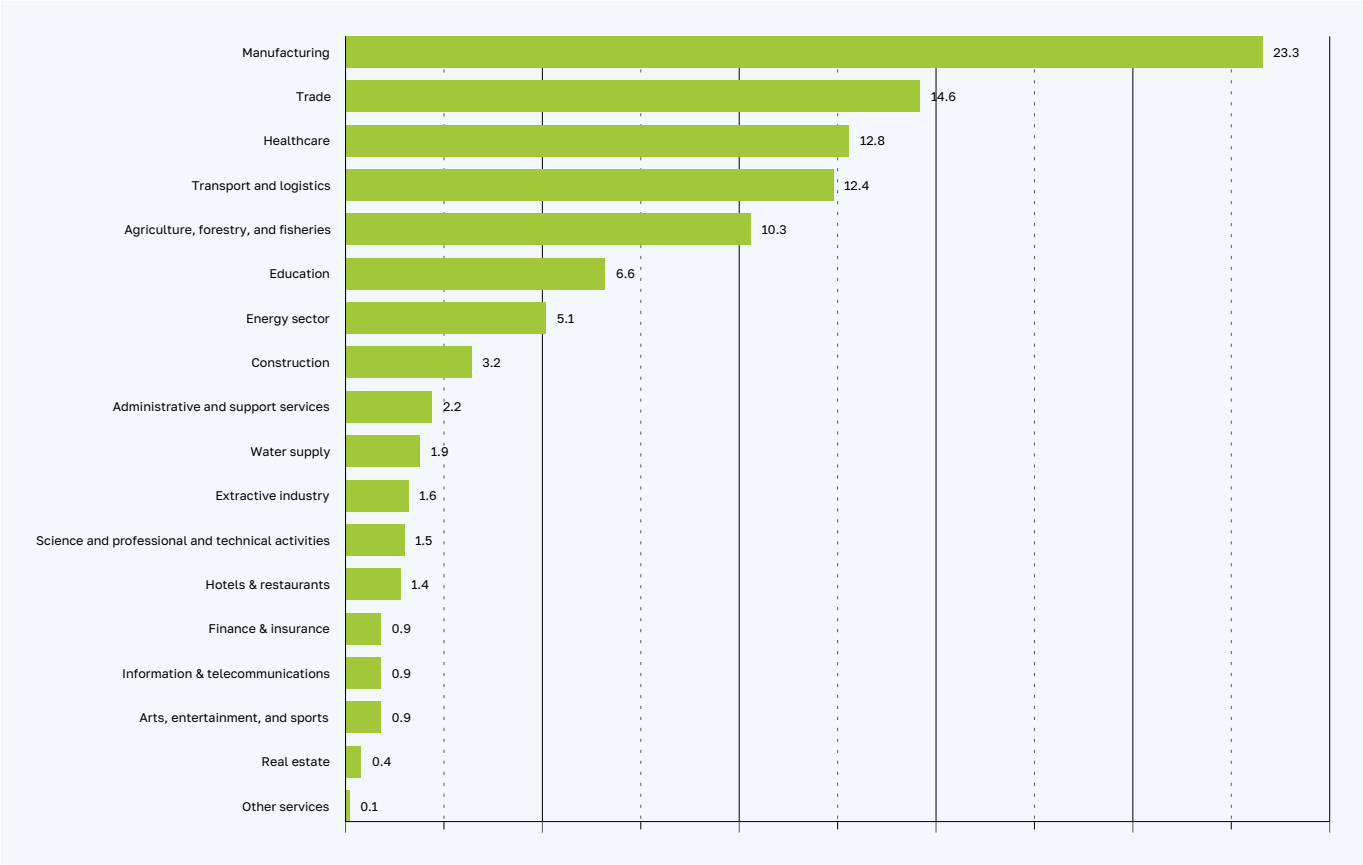


Fig. 2.41. Structure of employment by type of economic activity, %.

recover. Conditional stability was maintained in the main sectors of the economy, including agriculture, industry, and trade.

According to the survey, the following professions are the scarcest:

1. Electrician for Repair and Maintenance of Electrical Equipment
2. Seamstress
3. Fitter for Mechanical Assembly Work
4. Repair Fitter
5. Tractor-Machinery Operator in Agricultural Production
6. Milling Machine Operator
7. Confectioner
8. Cook
9. Electric Gas Welder
10. Doctor
11. Software Engineer
12. Cementing Unit Operator
13. Nurse (Orderly, Cleaner, and Other Junior Medical Staff)
14. Underground Electrician
15. Coal Miner for Clean-Up Operations

The shortage in these professions is, in particular, due to the fact that access to jobs requires a confirmed qualification (category). The training of these workers usually takes years, which also does not help them enter the labor market quickly.

At the same time, other, more widespread specialties in the economy were also in demand. Without these specialists, it is also impossible for an enterprise to operate, but there are quite a few people with the appropriate qualifications on the Ukrainian market. We are talking about accountants, economists, and pharmacists.

There is a constant demand for professions that do not require supporting documents. We are talking about cleaners, waiters, baristas, packers, loaders, and security guards. A short on-the-job training is sufficient to be admitted to work in these positions, which simplifies recruitment. At the same time, these positions tend to have a high turnover rate at enterprises.

In addition to the additional demand for employees, the staff shortage is caused by the search for replacements for the departed employees (mainly due to massive departures abroad and mobilization).

In 2023, more than 60% of vacancies were in economically active

regions: Kyiv, Dnipro, Lviv, Odesa, and Kharkiv regions.

In 2023, the largest number of workers were hired to maintain machinery and equipment, as well as to work in trade and services. The latter sector is characterized by high staff turnover, which indicates that positions are easily filled.

In 2023, all large and medium-sized enterprises actually hired or laid off staff. Active recruitment was observed in the energy, healthcare, mining, and water supply sectors. In the small business segment, the situation is more certain. 34% of small and 64% of micro enterprises did not experience any changes.

For obvious reasons, most employers are not confident in their growth prospects. Businesses in the industry are expecting to expand their staff:

- **processing industry;**
- **trade;**
- **health care;**
- **transportation and logistics;**
- **agriculture, forestry, and fisheries.**

Most of these industries are heavily regulated by law and, accordingly, only people with proven qualifications are allowed to work. For this purpose, they independently conduct additional training, retraining, or advanced training.

In 2024, the surveyed companies plan to hire skilled workers, specialists for retail and service sectors.

Currently, the Federation of Employers of Ukraine is actively cooperating with the State Employment Center and other stakeholders to conduct a study on the causes and ways to overcome unemployment.

European integration. The impact of green and digital transitions. European integration processes have a significant impact on the labor market and business in Ukraine. The adaptation of Ukrainian legislation to European standards and Ukraine's integration into the European economic and educational space, in particular, open up new opportunities and, at the same time, require additional efforts.

Obviously, the restoration of infrastructure facilities (housing, businesses, public spaces, etc.) will take place with due regard to modern environmental and resource-saving solutions. There will be an increasing demand for specialists who can design solar/wind power plants, install, repair and maintain equipment for their operation, and offer engineering solutions.

At the same time, the process of digitalization of the economy in Ukraine is quite active, and the impact of the global digital transition is growing.

For example, at the UN Future Summit held in late September

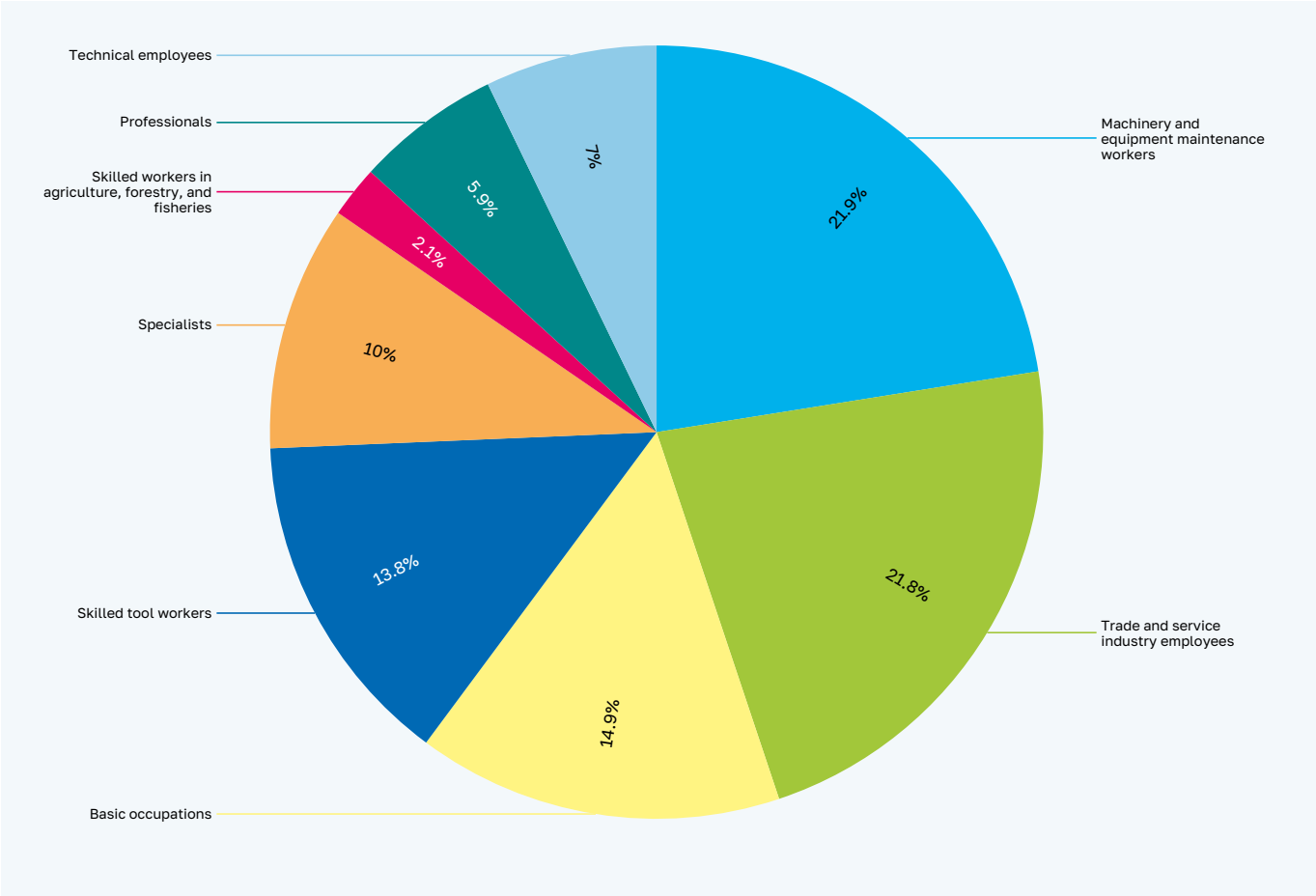


Fig. 2.42. Structure of hired employees in 2023 at the surveyed enterprises, % of people

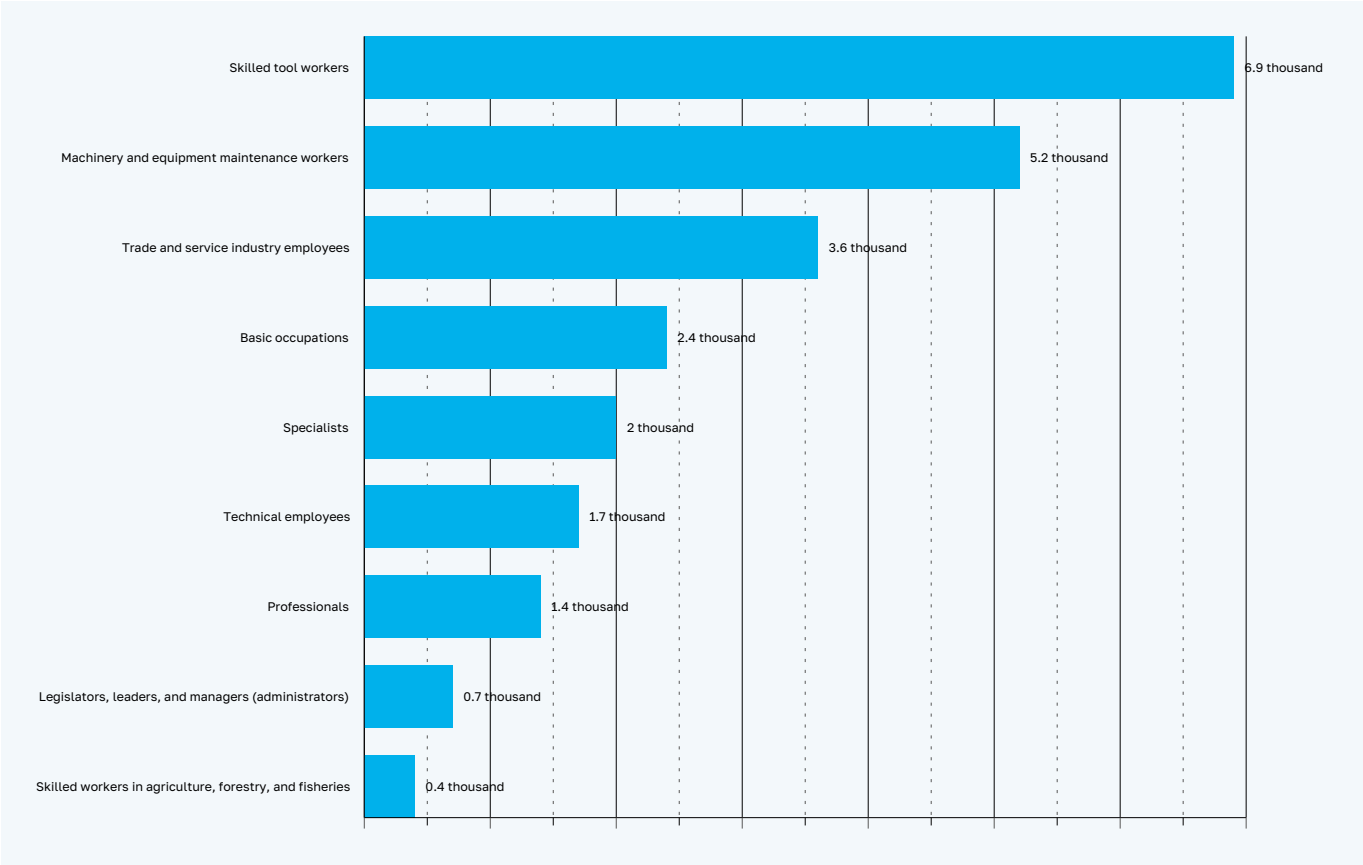


Fig. 2.43. Planned additional hiring of employees in 2024 at the surveyed enterprises, thousand people

in New York (USA), world leaders met, among other things, to sign the Global Digital Compact. Expanding the capabilities of artificial intelligence, digitalization of educational and production processes, increases the demand for digital skills of potential employees, and creates the need for mobility between professional qualifications and sectors. Therefore, representatives of Ukrainian business initiated the introduction of a mandatory indicator for digital skills in professional standards.

Ukrainian specialists are actively working on the development of cyber defense and electronic warfare equipment. This includes systems capable of intercepting and jamming enemy signals, which is a key element of modern combat operations.

Ukraine pays great attention to the development and implementation of artificial intelligence in public administration. The Ministry of Digital Transformation is responsible for this area, and it is involved in the development of artificial intelligence, implementation of the smart city concept by local governments, development of standards in the areas of electronic trust services, electronic identification and authentication, etc.

Hence, digital skills are becoming a general necessity for both those who are employed and want to be competitive and for aspiring workers. Digital skills are generally in demand for workers in the vast majority of professions in all sectors of the economy. At the same time, there is a fairly high level of digital literacy among workers and job seekers in Ukraine, especially among young people.

According to the study «Assessment of the Labor Market and Demand for Professional Skills in Ukraine 2023-2024», it is relatively easy for employees to master digital innovations or adapt new employees to the digital environment of companies. The process of digitalization and the introduction of the latest technologies in production processes will only increase the importance of digital skills for all professions and increase the demand for the latest professions, such as precision farming system operators, 3D printing engineers and operators, Big Data analysts, AI marketers, etc.

Interestingly, the fixed Internet connection at Ukrainian enterprises is sometimes higher than in EU countries.

Solving the problem of staff shortages. The business community is already looking for ways to overcome the staff shortage, and there is appropriate communication between business and the government. However, as long as the war is ongoing, such topics have a short-term planning perspective. The labor market is influenced by many factors: purely military threats of physical destruction, damage to businesses, occupation of territories, and logistical export opportunities.

In terms of staffing, mobilization has been and will remain a significant factor of influence. Conscription into the Armed Forces of Ukraine significantly affected the volume of hiring, led to changes in staff turnover, caused specific supply and demand patterns, and exacerbated the existing shortage of personnel in the labor market. Businesses responded to the significant shortage of employees by increasing vacancies for vulnerable categories, including young people with no work experience, veterans, people with disabilities, and people of retirement age.

Staff training. Ukrainian business invests significant budgets

in training, professional development, and retraining programs. This includes both existing employees (career development) and those who are unqualified but want to be employed by the company. To meet the needs for staff development, training or retraining, businesses organize on-the-job training. Training organized at large enterprises maintains a steady trend towards development, using both in-house resources and outsourced educational services. Most of these enterprises align the content and process of training with state standards as closely as possible, and have licenses to provide training, which is reflected in the Unified State Electronic Database on Education.

At the same time, the volume of corporate training at large enterprises can significantly exceed the volume of training in the classical (formal) education system. For example, the international group of mining and metallurgical companies Metinvest has 100,000 instances of adult training per year, where the average cost of one instance of training may amount to about 15,000 hryvnias. The joint-stock company «Ukrzaliznytsia,» which is the largest enterprise in Ukraine in the field of railway transportation, has about 120,000 instances of adult training per year. The largest private investor in Ukraine's energy sector, DTEK, has approximately 100,000 instances of training per year. The mining and metallurgical enterprise Ferrexpo – 2,000 instances of training per year.

Even in times of war, businesses attract tens of thousands of students for dual education, internships, traineeships, or training. In the 2022/2023 academic year, more than a thousand companies cooperated with educational institutions to train students in dual education. Such training usually results in successful employment of graduates at the companies where they studied. For example, Poltava Mining and Processing Plant (Ferrexpo Group) works closely with Kremenchuk National University and the Polytechnic College at Ostrohradskyi National University. As part of the dual education pilot, the company has trained more than 100 students. Almost 50% of students of both higher and professional pre-higher education are employed by the company. **It is important that in Ukraine, an enterprise that provides dual education for students does not receive any compensation from the state. Instead, it pays students a monetary reward for the work done from its own budget, and provides them with consumables, workwear, tools, etc.**

Involvement of women. Unfortunately, the employment of women in Ukraine is consistently lower than that of men (43% vs. 57% in 2021). In 2023, there was an increase in women's employment to 51%, but this figure is insufficient in the context of the demographic crisis. Women used to work more often in the humanitarian and managerial sectors, but the war has led to women being involved in professions that were traditionally considered «male». There are successful examples of women working in industrial and logistics professions (welding, turning, electrical installation, driving heavy machinery, etc.).

The common problem of filling positions requiring the use of physical force is partially solved by employers through the automation of production processes or the purchase of auxiliary

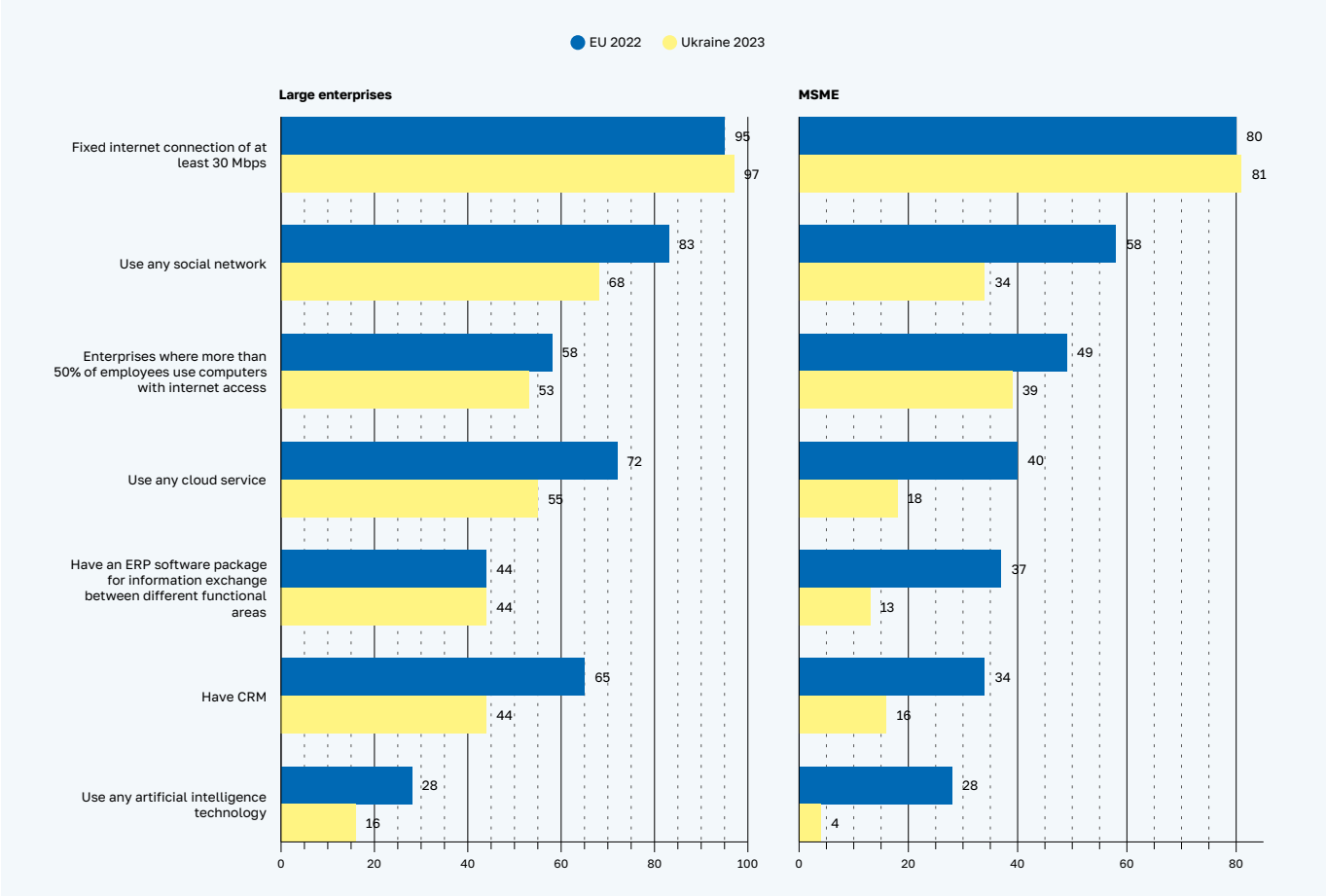


Fig. 2.44. Selected indicators of the Digital Intensity Index that track digitalization processes in the EU and Ukraine in 2023, % of enterprises

equipment.

Working with demobilized soldiers. Ukrainian employers have a high level of social responsibility and aim to integrate demobilized military personnel into the labor market: through the creation of inclusive jobs, rehabilitation programs, HR work to help them use the skills they acquired during their service in civilian life, etc. Currently, the share of veterans in the structure of employees is only 2%. The reason for this low involvement is that military dismissals are not yet a widespread phenomenon. However, 36% of employers are ready to hire former military personnel and, accordingly, create conditions for their comfortable work.

Big business is already hiring psychologists to work with demobilized employees or employees who have been through the occupation and witnessed war crimes. The next step is the massive creation of inclusive workplaces that take into account the needs of the individual.

Below are examples of how Ukrainian companies are working to reintegrate veterans into the workforce.

SoftServe (IT)

We developed an internal program called Veterans at SoftServe, which takes into account social, physical, and emotional support for veterans.

More than 60 employees (HR, PM) have been certified as Veterans at Work by the International Society for Human Resource Management (SHRM). The company also consults with the Veteran HUB and other specialized public organizations to better understand the needs of veterans.

A support package is in place for mobilized and demobilized employees, including an extended health insurance package and psychological support services, and demobilized employees are offered an additional one-time leave of up to 1 month. In addition, we are working on a barrier-free and inclusion program. Currently, 69% of offices are accessible to wheelchair users.

MHP (agro-industrial complex)

2900 MHP employees went to the front, 300+ returned to work.

The company has launched the MHP Next program, which provides support to the military, veterans and their families during their service and after returning from the war. Namely:

- humanitarian aid to military units;
- medical examination, treatment and rehabilitation;
- legal and psychological support;
- social reintegration;
- professional adaptation;
- 24/7 hotline.

Since the beginning of the full-scale war, more than UAH 1 billion in salaries have been paid to the company's defenders. The budget of the MHP is There for You veteran program in 2024 is UAH 100 million.

Metinvest (mining and metallurgical complex)

CAs of April 2024, more than 8 thousand employees of Metinvest Group were in the ranks of the Armed Forces of Ukraine. Almost 1,000 employees, including ATO veterans, have now returned to work after the front. About 85% of them are working in their previous positions. Due to the war and related challenges, Metinvest Group estimates a staff shortage of 4,000 people.

To make the work with veterans effective, the company's managers studied the experience of working with veterans from Israel and the United States

To determine the needs of employees after demobilization, Metinvest interviewed more than 400 veterans and developed support programs. They include psychological rehabilitation, medical examinations, legal advice, payment for treatment and prosthetics for the wounded, and financial support for the families of the deceased. **The company has already paid $6.2 million in aid.**

In addition, the Group offered new jobs at the Group's facilities located in the government-controlled areas to employees who relocated from Mariupol and Avdiivka. If people agreed to continue working, they could receive food packages, support in finding and renting housing through the corporate program «Home for Our Own» (the company reimbursed the cost of rent of UAH 3 thousand for 6 months) or temporary accommodation in social facilities such as dormitories. Along with this, assistance was provided with enrolling children in kindergarten or school, and with entering Metinvest Polytechnic University.

Farmak (pharmaceutical industry)

89 Farmak employees are defending Ukraine in the Armed Forces of Ukraine. Farmak keeps in touch with each of them and purchases technical equipment and military gear: from helmets and body armor to cars and Starlink. Fellow defenders of can send requests for assistance through a special channel of constant communication created by the company

Each mobilized employee retains his or her job, salary and corporate health insurance. The company provides financial assistance to the children of employees killed in the war (children will receive these payments until they reach the age of majority).

A comprehensive program has been developed to work with the military:

- **Legal support:** support on all issues that arise during and after military service;
- **Psychological and physical recovery:** after demobilization, defenders receive psychological assistance, regular medical examinations and consultations with doctors under the existing health insurance program;
- **Rehabilitation:** the opportunity to undergo rehabilitation

in one of Kyiv's private clinics at the company's expense. Veterans can also receive vouchers to health resorts;

- **Loyal working conditions:** the opportunity to work at a convenient pace during the adaptation period and free paid days in the first time after returning to resolve issues related to the paperwork for war veteran status.

In addition, the company organizes and conducts special courses for employees, during which the team is prepared to meet with veteran colleagues.

Working with internally displaced persons. According to the International Organization for Migration, as of August 2024, there are almost 3.7 million internally displaced persons in Ukraine. Labor market research shows that the total share of IDPs in the structure of employees is only 4%. This is very low, given the scale of internal migration.

According to the survey, the majority of employers see no obstacles to hiring vulnerable groups. This is especially true for IDPs, as indicated by over 77% of employers. Businesses often complain about the lack of interest among IDPs in employment.

Many companies offer medical and psychological assistance to IDPs, provide food packages, temporary housing, and help with enrolling children in kindergarten or school. Families of employed IDPs, including their children who have experienced traumatic events, often receive psychological assistance. Given the acute shortage of employees, large enterprises offer IDPs training at their corporate training centers. Thus, if the professions (qualifications) of IDPs do not meet the needs, companies organize free retraining for people. Some companies (Metinvest) offer «lifting» payments for the period of training.

Employment of people of retirement and pre-retirement age. The Institute of Demography and Quality of Life Problems of the National Academy of Sciences of Ukraine estimates that the population of Ukraine within the 1991 borders may decrease to 28.9 million people by January 1, 2041, and to 25.2 million by January 1, 2051. Such forecasts only confirm that the involvement of people of retirement and pre-retirement age in the Ukrainian labor market will only increase.

Education reform. Ukrainian business has a high social responsibility and actively invests in human capital development. These investments are realized through various projects that bring benefits in both the short and long term. For example, the business has initiated and implemented professional standards in Ukraine, is working on the development of the National Qualifications System, and for the first time in the EU has introduced employment with «partial professional qualifications». Employers have identified educational reforms at all levels, including vocational, vocational pre-university, and higher education, as one of their key strategic priorities. Through these efforts, businesses are trying to overcome the shortage of workers and ensure that the knowledge of young professionals matches the requirements of their businesses.

Employers' representatives are members of working groups that develop educational legislation. For example, representatives of the Federation of Employers of Ukraine participated in the development of the Law of Ukraine «On Education», the Law of Ukraine «On Higher Education», the draft law «On Vocational Education», the Concept of Higher Education in Ukraine, and the Concept of Training Specialists in Dual Form of Education. In addition, the business is a regular participant in working groups on the development of educational standards, resolutions and orders of the Government of Ukraine.

Employers were the drivers behind the creation of a permanent collegial body in Ukraine authorized to implement the state policy in the field of qualifications - the National Qualifications Agency.

Employers' representatives are represented in the National Agency for Quality Assurance in Higher Education, the National Qualifications Agency, and are members of the Council for the Development of Vocational Education and Training under the President of Ukraine, as well as the Board of the Ministry of Education and Science of Ukraine.

Professional standards. In order for employers and education to have a common vision of the skills that a graduate should have, they must have the same understanding of the work they do in the workplace. This understanding is equally important for employers, educational institutions and their graduates. Therefore, in 2014, employers initiated the transition from outdated qualification characteristics to modern professional standards - documents that describe professional qualifications and requirements for work in professions. **As of October 1, 2024, 359 professional standards have been officially approved.**

Professional standards are reviewed at least once every 5 years, as labor functions change. The developers of professional standards can be regional and sectoral business associations, professional associations, ministries, educational institutions and other stakeholders. Working according to professional standards makes it possible to create short programs (modules) for quick retraining of personnel, optimize job functions and legally employ people.

The transition from qualification characteristics to professional standards has allowed us to more effectively influence the quality of personnel training. Educational standards are developed on the basis of professional standards (approved by the Ministry of Education and Science of Ukraine). Based on the educational standards, educational institutions develop curricula and programs.

In addition, in this case, people can quickly confirm their qualifications through qualification centers, which are assessed only against approved professional standards.

Qualification centers. The official introduction of the concept of «partial professional qualifications» into labor legislation and the creation of conditions for independent assessment of learning outcomes through qualification centers was a real breakthrough for both the education sector and the labor market.

Qualification centers are institutions that assess learning outcomes. Based on its results, a full or partial professional qualification may be awarded. Such centers do not provide training, but only assess knowledge for compliance with a professional standard.

Depending on the technological complexity of the profession, the assessment (theoretical and practical exams) lasts from several weeks to two months. If the person's knowledge meets the requirements of the professional standard, a certificate of full or partial qualification in the profession is issued. Such a certificate is not an alternative to a diploma, but it allows you to be officially employed.

As of October 1, 2024, there are 127 qualification centers in Ukraine in different regions of the country. In these centers, it is possible to confirm knowledge and skills for 431 unique professional qualifications. The largest number of such centers was established in Kyiv (21) and Dnipro (19).

The system of qualifications recognition through qualification centers has other long-term benefits. **Ukrainians who have been forced to migrate abroad and are studying, training at the workplace, or self-learning (through courses, training, video lessons) will be able to return and quickly have their acquired skills recognized, either from self-study or in an EU country, and find employment in Ukraine.** By contacting the qualification center and passing an exam, anyone can quickly have their full or partial professional qualification recognized, obtain an official document, and legally work. **This approach speeds up the possibility of legal employment.**

Currently, most qualification centers are created by businesses or other organizations at the request of businesses. The motivation is to preserve human capital in Ukraine, create conditions for the fastest possible official employment, and prevent people from migrating.

Reform of the Classifier of Occupations. In order to ensure that education reforms meet the requirements of the modern labor market and to accelerate Ukraine's European integration, it became necessary to update the national Classifier of Occupations and bring it in line with the International Standard Classification of Occupations ISCO-08. Therefore, in October 2023, the business initiated the process of unifying and bringing the Classifier of Occupations in line with the international standard ISCO-08.

Reform of the occupational classification is important for creating a more efficient system of personnel training and economic development. Currently, information on occupations in Ukraine is regulated by three sources: The Classifier of Occupations, the Handbook of Qualification Characteristics of Workers' Occupations, and the Register of Qualifications. The first two documents have a Soviet basis and are regulatory acts. Instead, the EU countries have a different approach to the classification of professions. They use the international classifications ISCO-08 and ESCO, which do not have a regulatory function but are tools for collecting statistics and facilitating the international exchange of information on occupations and qualifications. Countries that have properly implemented the ISCO-08 and ESCO recommendations speak the same language, and their citizens have no problems with the recognition of qualifications.

International partners - the International Solidarity Fund of the Republic of Poland and the European Bank for Reconstruction and Development - supported the project to update the Ukrainian Classifier of Occupations. Thus, the project «Support for the revision of the Ukrainian Classifier of Occupations and bringing it in line with the ISCO 08 standard» is being implemented by the International Solidarity Fund.

The goal of the Project is to carry out a real reform of the Classifier of Occupations. To remove the regulatory function from it, leaving the status of a statistical reference book (practice of the International Standard Classification of Occupations, ISCO-08). This step will mean that qualifications in Ukraine will be considered according to the same approaches as in Europe, the world and the rules of the International Labor Organization.



Fig. 2.45. Development of the national qualifications system

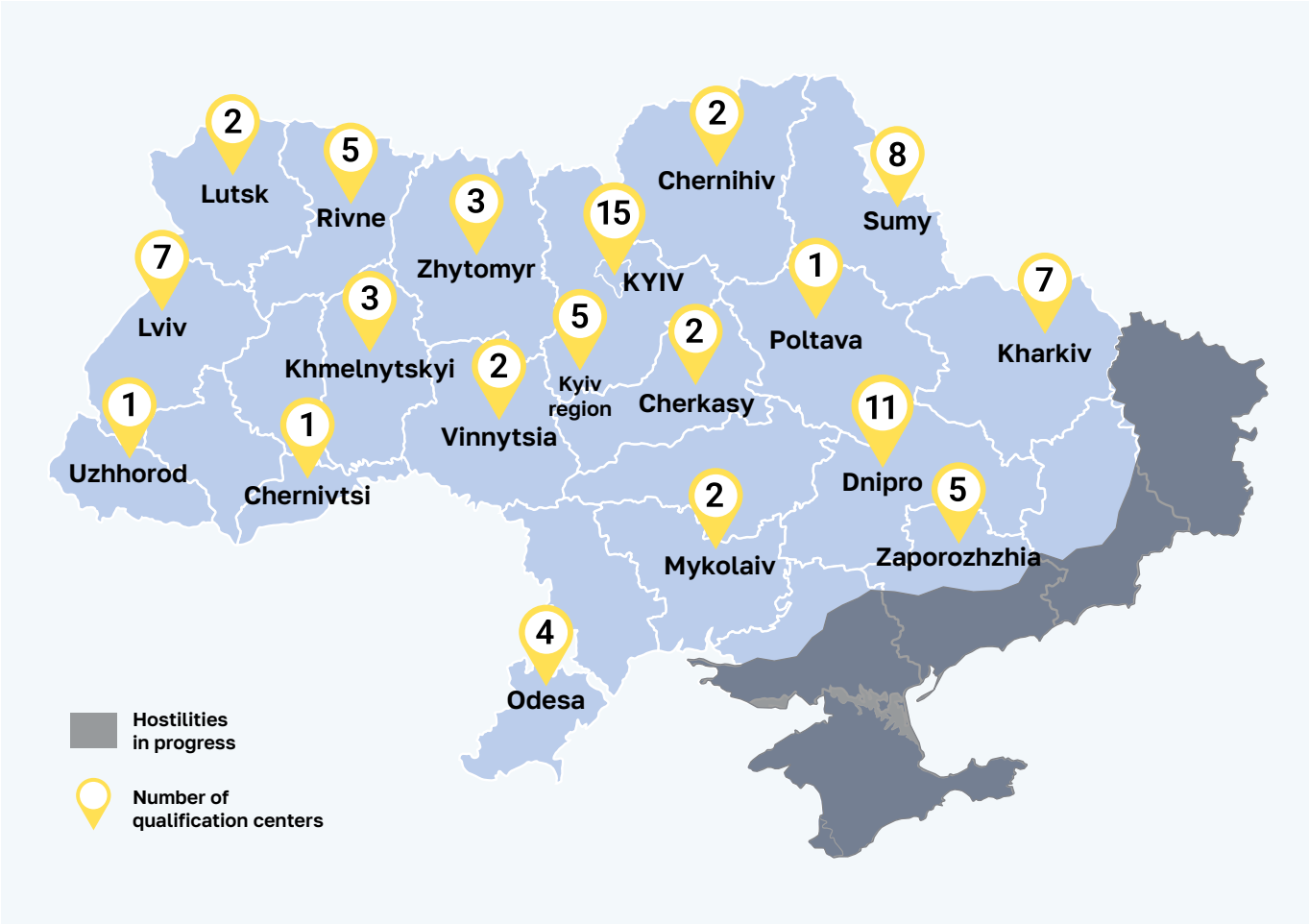


Fig. 2.46. Map of qualification centers in Ukraine

The Classifier should be replaced by the Unified Register of Qualifications, which will be maintained by the National Qualifications Agency. The new Register will be 100% digitalized and synchronized with other databases.

Updating the Ukrainian Classifier of Occupations is of fundamental importance for the process of Ukraine's economic integration into the European Economic Area. The revision of the Classifier of Occupations is an important element of the identification of occupations (professional qualifications) and mutual recognition of qualifications of the Ukrainian and European systems (ISCO-08).

Work on the project is scheduled to be completed by the end of 2024 and the results of the developments will be made public.

On May 09, 2024, the Verkhovna Rada of Ukraine adopted as a basis the draft law «On Amendments to Certain Legislative Acts of Ukraine on Improving the National Qualification System in Accordance with the Current Needs of the Labor Market and Other Issues», which lays the legal basis for the reform of the Classifier of Occupations. These changes are important both in view of Ukraine's European development course and for strengthening the country's human capital.

Career guidance. Due to the shortage of workers, businesses spend millions of dollars on career guidance projects aimed at raising the prestige of working professions among young people. These projects are carried out both at the local level (strictly in the regions where companies operate) and at the national level. One of these projects is the WorldSkills Ukraine professional skills competition (official website: http://www.worldskillsukraine.org/).

The competition is organized by the Federation of Employers of Ukraine in cooperation with the Ministry of Education and Science of Ukraine. WorldSkills Ukraine is a part of the international movement WorldSkills International, which includes 89 countries. More than 100 million young skilled workers take part in WorldSkills competitions. Ukraine joined this movement thanks to the efforts and investments of employers who still represent the country at the international level.

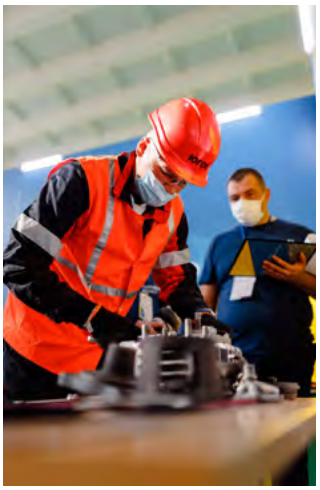
For 7 years, Ukrainian businesses have fully funded the competition to show young people the opportunities that a working profession opens up and to change the stereotype about its lack of prestige. The competition gave the aspiring workers a chance to showcase their skills to leading employers, improve their skills during training, work with experienced mentors, and learn about the requirements of the modern labor market. The best companies organized exhibitions at the WorldSkills Ukraine venues to talk about vacancies, career opportunities, and routes.

The vocational guidance part of the competition was realized through visits to the sites by schoolchildren. Teenagers could try themselves in different professions, see what real work in a blue-collar occupation looks like, learn about new technologies and dispel stereotypes about vocational education. This inspired















them to choose professions that match their interests and talents.

The competition was widely covered in regional and national media, on the websites of educational institutions and organizers' resources. Over the 7 years of WorldSkills Ukraine, more than 2,800 young workers have taken part in the competition, and hundreds of them have received offers for internships or employment.

Legislative initiatives of business aimed at European integration

European integration legislative initiatives of business regarding changes in the labor market are aimed at adapting national legislation to the standards of the European Union. They are an important part of the process of Ukraine's approximation to the EU and cover various issues. Thus, business is involved in shaping the new legislative framework in the following areas:

- Improving the national qualification system (rapid recognition of learning outcomes, partial/micro-qualifications, easier access to the labor market);
- reforming the national Classifier of Occupations and bringing it in line with ISCO-08;
- improving the Procedure for developing professional standards in line with ISCO-08;
- reforming the system of vocational education and training, etc.

1. **Law 2179 of April 01, 2022 «On Amendments to Certain Legislative Acts of Ukraine on the Functioning of the National Qualifications System».**

The law introduced important changes to the Labor Code regarding the functioning of the national qualifications system, in particular:

- The Law regulates the process of developing, approving and implementing professional standards that define the requirements for the competencies, knowledge and skills of employees to perform specific work. These standards can be developed by employers, their associations, public

authorities, research institutions and other stakeholders. They ensure transparency and clarity of requirements for professional activities, which contributes to improving the quality of labor and increasing the level of employment.

- The country introduced partial professional qualifications (micro-qualifications) earlier than in the European Union, which allow employees to acquire the necessary competencies to perform specific tasks faster and facilitate their integration into the labor market. This approach increases the flexibility of the vocational training system and facilitates faster adaptation to changing employer requirements.

- Qualification centers have been introduced to provide assessments for individuals seeking to confirm their competencies or obtain qualifications without the need for formal training in educational institutions. This enables people with practical experience, but without formal confirmation of their skills, to obtain a document confirming their qualifications, which increases their chances of employment or career growth.

2. **Draft Law 9630 «On Amendments to Certain Legislative Acts of Ukraine on Improving the National Qualifications System in Accordance with the Actual Needs of the Labor Market and Other Issues».**

The adoption of this draft law will allow updating the National Classifier of Occupations in accordance with the international standard classification ISCO-08, digitalizing it, and synchronizing it with other state databases (registers).

This approach will create fast, transparent and efficient access to information on professional qualifications. In addition, it will significantly simplify the recognition of professional qualifications of Ukrainian citizens, including those who have acquired new skills abroad and decide to return to Ukraine. The new Register, which will replace the outdated Classifier of Occupations, will allow for an effective response to labor market needs, particularly during post-war reconstruction, providing a response to global economic challenges and human capital development.

3. **Draft Resolution of the Cabinet of Ministers of Ukraine «On Amendments to the Procedure for Development, Enactment and Revision of Professional Standards».**

It provides for the ISCO-08 code and the English-language name of professional qualifications in professional standards. The inclusion of this code in the professional standards of Ukraine makes it easier to compare and contrast the qualifications of Ukrainian workers with their international counterparts. The English-language names of qualifications help international companies or foreign employers understand what skills and competencies Ukrainian workers have. It also simplifies the hiring process for foreign companies operating in Ukraine.

4. **Draft Law «On Vocational Education».**

The draft document currently contains the following important changes for business:

- educational programs should be developed on the basis of professional standards;

- professional qualifications should be awarded based on a transparent assessment procedure in independent qualification centers;

- the order for training should be based on a labor market demand;

- employers must be members of the Supervisory Boards of vocational education institutions.







CHAPTER 3

MECHANISMS FOR ENSURING UKRAINE'S OPTIMAL INTEGRATION INTO THE EUROPEAN ECONOMIC AREA

3.1. Strategic directions for deepening trade and economic cooperation between Ukraine and the EU

The prospects for Ukraine's economic prosperity as a result of European integration processes are primarily related to the role the domestic economic complex will play in the European economic space and the place it will be able to take in the value chains that are strategically important for the EU. The scope of opportunities for integrating the Ukrainian economy into the EU economic mechanism at a qualitatively new level is broader than ever, as the European Union is in the process of fundamentally revising its geo-economic interests and priorities for cooperation with the outside world to address key development issues.

Disruptions in supply chains during the covid-19 pandemic, growing geopolitical tensions with major partners due to the spread of unfair competition in trade, The imposition of unprecedented sanctions against russia and the largely disconnected from russian energy due to the large-scale invasion of Ukraine have completely changed the traditional economic landscape for the EU and revealed a number of areas where Europe needs to become more resilient to withstand future shocks and at the same time implement ambitious green and digital transitions. In practice, this will mean a large-scale redirection of capital, goods and services flows and a reshaping of international value chains to ensure economic security and reliable access to strategic resources and technologies.

To achieve these goals, the EU is implementing a comprehensive industrial policy that includes investment incentives, easier access to financial resources, tax incentives, education and training, improved regulatory practices, and foreign trade policy mechanisms, united and coordinated by the common goal of achieving **the EU's Open Strategic Autonomy**. The main principle of strategic autonomy is that the EU continues to take advantage of international cooperation with countries that remain committed to free and fair trade (and are able to build efficient and stable supply chains), but persistently rebuilds and modernizes its industry, protecting itself from dumping and subsidized trade, as well as foreign investment that may pose a threat for security reasons or access to advanced technologies.



The main directions for achieving the EU's Open Strategic Autonomy are defined in the European Commission's second strategic foresight «EU Capability and Freedom of Action»[3] and include the following:

- **ensuring sustainable and resilient health and nutrition;**
- **decarbonization and access to energy at an affordable price;**
- **strengthening capacity in data management, artificial intelligence and advanced technologies;**
- **ensuring access to and diversification of critical materials supplies;**
- **ensuring global leadership in standard setting;**
- **building sustainable and promising financial and economic systems;**
- **preserving and developing skills and talents that meet the EU's ambitions;**
- **strengthening defense capabilities, access to aerospace technologies;**
- **working with global partners to promote peace, security and prosperity for all;**
- **strengthening the resilience of institutions.**

The economic content of strategic autonomy was concretized in the report «The Future of European Competitiveness» by former European Central Bank President Mario Draghi[4], which was presented to the European Commission in 2024 to facilitate the Commission's work in developing a new plan for sustainable prosperity and competitiveness in Europe.

In particular, the report points out that in the new environment of increased geopolitical tensions between the world's major players, Europe's high level of integration into the global economy is turning from an advantage to a sign of vulnerability, and the EU can no longer rely on other leading countries for its economic and military security. When it comes to enhancing security and reducing dependence, the EU needs to secure diversified access to critical resources and protect key value chains. This may require preferential trade agreements with more reliable and predictable partners and guaranteeing critical supplies, including through direct EU investment in upstream and downstream capacities in these countries.

The key threat to the European economy and security, according to Mario Draghi, is the EU's technological lag and dependence on geopolitical competitors in the following areas: artificial intelligence (AI) and information and telecommunication technologies (ICT) in general; development and production of chips and other semiconductors; production of batteries for electric vehicles, solar panels and other equipment underlying the green transition; production, testing and unification of weapons and military equipment; production of launch vehicles, rocket engines, geostationary satellites, satellite receivers and programs, etc.

From the above, we can trace a number of areas in which Ukraine has the potential and capabilities to become an indispensable partner of the EU in overcoming its pressing economic and security problems, strengthening the resilience and competitiveness of the European economy on a mutually beneficial basis. In particular, Ukraine's participation in increasing the resilience and sustainability of European value chains, ensuring the EU's food security, reformatting its participation in international trade, mutually reinforcing innovation and technological potential in strategic industries and services, and providing the EU with critical materials is seen as promising (Fig. 3.1).

3 2021 Strategic Foresight Report "The EU's capacity and freedom to act".
https://commission.europa.eu/strategy-and-policy/strategic-foresight/2021-strategic-foresight-report_en

4 The future of European competitiveness: Report by Mario Draghi.
https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en

Open strategic autonomy of the European Union		Opportunities for Ukraine and the EU
1. Increasing the resilience and sustainability of global supply chains • ensuring reliable access to critical and strategic materials; • reducing the transportation leverage for vulnerable supply chains (nearshoring); • Preferring to cooperate with countries that share the same values and approaches to fair trade, cooperation and competition as the EU (friendshoring).	⟷	• Providing the EU with the vast majority of critical and strategic materials, subject to their partial processing within the country; • transforming Ukraine into an investment and industrial hub for nearshoring and friendshoring to strengthen the strategic autonomy of EU countries in the most vulnerable sectors of the economy.
2. Reformatting participation in international trade • counteracting unfair competition in international trade through the use of protective measures against massive dumping and subsidized imports; • finding a new balance of trade relations with partner countries in line with the key interests and values of the European Union.	⟷	• partial replacement of sanctioned European imports from the russian federation and belarus with Ukrainian goods, expansion of the list of sanctioned goods; • substitution of Ukrainian goods for imports to the EU from other countries with which fundamental geopolitical and geoeconomic contradictions are growing.
3. Ensuring food security and sustainability • protecting against the risks of a drop in food supply due to climate change, degradation of agricultural land in agricultural supplying countries, and negative structural changes in the EU labor market; • Reducing the environmental footprint of food production through breakthrough technologies and building sustainable food systems.	⟷	• supplying the EU with a wide range of agricultural and food products manufactured and certified in accordance with European quality and safety standards and in compliance with the requirements of sustainable food systems; • Diversification of fertilizer and animal feed supplies to the EU at the expense of Ukrainian producers.
4. Strengthening innovation and technological potential • overcoming the EU's technological lag in a number of industries through an active industrial policy; • Strengthening economic security by reducing dependence on foreign strategic technologies (semiconductors, batteries for electric vehicles, aerospace, artificial intelligence) and developing the defense industry.	⟷	• involvement of Ukrainian companies in financing regional and infrastructure development from specialized EU funds as part of the implementation of industrial policy; • development of cooperation in the defense industry, ICT, digital transformation, and other strategic areas where Ukraine has developed tangible competitive advantages.

Fig. 3.1. Promising areas in which Ukraine can strengthen the EU's Open Strategic Autonomy

3.1.1. Providing the EU with critical and strategic materials

In March 2024, the European Council adopted the Critical Raw Materials Regulation[5] to ensure reliable access to rare resources. Critical materials are defined as those materials that are of great economic importance to the EU economy, which are associated with high risks of supply disruptions due to the concentration of their production sources, and for which there are no adequate substitutes. Accordingly, the objectives of the law are to increase and diversify imports of critical materials to the EU, reduce dependence on imports of critical materials from countries with which the EU is not strategically linked, increase recycling of critical materials in the EU, and develop research and development in the area of efficient use and invention of substitutes for critical materials.

In total, the EU has identified 34 types of critical materials required for the efficient functioning and integrity of a wide range of industrial ecosystems (the list of critical materials may be revised in the future). From the set of critical materials, 17 types of strategic materials have been identified that are indispensable in the field of renewable energy (production of solar panels, wind turbines, electric transport, energy-saving lighting equipment), information and telecommunications technologies, aerospace, and the defense industry (Fig. 3.2).

The key problem with critical materials is the rapid growth in demand for them, while their extraction and processing are concentrated mainly outside the EU. For example, in 2017-2022,



Fig. 3.2. List of critical and strategic raw materials in the EU

Note:

1. Critical materials are highlighted in blue, strategic materials in yellow. The green circle indicates those materials that are available in Ukraine. Heavy and light rare earth elements here mean neodymium, praseodymium, terbium, dysprosium, gadolinium, samarium, and cerium.

Source: An EU critical raw materials act for the future of EU supply chains. https://www.consilium.europa.eu/en/infographics/critical-raw-materials/#0

5 Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations. Retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401252

the global market for the most important minerals needed for the development of renewable energy sources (RES) doubled to €300 billion, with demand for lithium tripling, cobalt growing by 70%, and nickel by 40%. According to the International Energy Agency, by 2040, the demand for raw materials for clean energy technologies will increase 4-6 times[6]. At the same time, the EU is completely dependent on imports of most critical materials. In many cases, it is dependent on a single supplier country. In particular, China provides 99% of the EU's supply of heavy rare earth metals and 98% of light metals, as well as 97% of magnesium; Turkey accounts for 98% of boron, 63% of antimony, and 51% of feldspar imports; 71% of the EU's platinum needs are covered by supplies from South Africa; 78% of lithium comes from Chile; 85% of niobium from Brazil; 65% of phosphorus from Kazakhstan; 63% of aluminum/bauxite from Guinea[7]. In the field of processed materials, the level of concentration in the global market is even higher: in 2022, China accounted for 100% of the world's processed graphite production, about 90% of the world's rare earths processing, 75% of cobalt production, 65% of the world's lithium production, 40% of copper production[8].

This poses a double problem for the EU: on the one hand, global prices for critical materials are too volatile, which discourages investment in its own production and strategic industries that use these raw materials. On the other hand, most of the extraction and processing of critical materials is concentrated in countries with which the EU is not strategically connected and which can turn their market power into a geopolitical weapon at any time. At the same time, the «bench» of countries that have sufficient reserves of critical raw materials, are in the EU's direct sphere of influence and are considered reliable and close in values to the EU, remains rather narrow. In particular, M. Draghi's extended report identifies only a few such countries that meet all the criteria of an «optimal» external partner in the supply of certain types of critical materials (lithium, nickel, cobalt, magnesium). Among them are Norway, the United Kingdom, the Balkan countries, Ukraine, and Moldova (Fig. 3.3).

Ukraine has a significant potential to enhance the EU's security, sustainability, and efficiency in accessing and using critical materials. Ukraine has deposits of 24 out of 34 minerals (see Figure 3.2) that are included in the list of critical and strategic materials for the EU. Traditionally, Ukraine is among the ten largest countries in the world in terms of titanium, manganese, graphite ores, bauxite and alumina for aluminum production, and has confirmed deposits of lithium, beryllium, nickel, rare earth elements, cobalt, hafnium, beryllium, vanadium, germanium, strontium, barytes, phosphorus, metallic silicon, feldspar and fluorspar. The reserves of some of these materials are particularly significant: according to the State Service of Geology and Mineral Resources of Ukraine (DSGNU), Ukraine's proven reserves of lithium and graphite are enough to produce cathode and anode materials for lithium-ion batteries with a capacity of about 1000 GWh to power nearly 20 million electric vehicles[9].

It should be noted that Ukraine's international cooperation on critical materials is gaining momentum. Back in 2021, Ukraine and the EU signed a Memorandum of Strategic Partnership in the field of raw materials, which provides for the integration of value chains, cooperation in research and innovation, improvement of mining standards in accordance with best practices, exchange of geological data, etc. Critical minerals were discussed at roundtables at the Ukraine Recovery Conference held in London and Berlin in 2023 and 2024, respectively. As a result of the latter, an online platform with promising investment projects in the field of critical materials was launched with the support of McKinsey to familiarize stakeholders.

As part of the Memorandum of Understanding between the State Service of Geology and Mineral Resources of Ukraine and the EBRD, work has been underway since 2023 to improve geological information management in Ukraine, building a modern IT infrastructure and digitizing geological reports to simplify access to information on deposits and reserves of critical resources in Ukraine and facilitate appropriate investment decisions. We have already digitized and placed on an interactive map 6 thousand books of geological reports with English-language metadata for 125 subsoil areas that are of strategic importance for decarbonization, sustainable economic development and defense capability of the state.

At the same time, Ukraine faces the task of attracting significant investments in the development of critical materials deposits, ensuring a certain level of processing of these materials by domestic enterprises in order to take its rightful place in international production chains and not become a raw material appendage for European industry. Given the global trend and the projected rapid growth in global demand for critical materials, it is crucial for Ukraine to increase their extraction and create facilities for their enrichment/processing and at least the production of semi-finished products within the country. According to preliminary estimates, about EUR 15 billion of investments are needed to develop the 10 most promising projects for the extraction of critical materials, their processing and the establishment of production within Ukraine.

In terms of attracting financing, Ukrainian companies, in particular, took advantage of the provisions of the EU Critical Raw Materials Act and submitted applications to the European Commission for the status of strategic projects for the development of lithium and graphite deposits in Ukraine. However, for example, in the case of lithium, the business strategy of Ukrlithiumvydobuvannya LLC, the deposit operator, envisages that only the extraction of raw materials and the first stage of their enrichment will take place in Ukraine, after which the lithium concentrate will be supplied to one of the EU countries, where 20 thousand tons of lithium

6 International Energy Agency. Critical Minerals Market Review 2023, p.5. https://www.iea.org/reports/critical-minerals-market-review-2023

7 Shaping & securing the EU's Open Strategic Autonomy by 2040 and beyond: Science for Policy report by the Joint Research Centre (JRC). https://publications.jrc.ec.europa.eu/repository/handle/JRC125994

8 The future of European competitiveness: Report by Mario Draghi. https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en

9 State Service of Geology and Mineral Resources of Ukraine. Portfolio of critical raw materials of Ukraine. https://www.geo.gov.ua/wp-content/uploads/presentations/ukr/critical-minerals-portfolio-ua.pdf

carbonate will be produced per year[10]. This will mean a significant loss of jobs and added value, as the price of most critical materials increases by an order of magnitude at the stage of semi-finished product production: while a ton of lithium concentrate costs about USD 800, the cost of one ton of lithium carbonate is about USD 1,000. The cost of one ton of lithium carbonate reaches USD 70 thousand. US DOLLARS.

In those types of critical materials where Ukraine has an established mining and processing industry, the situation with value added is not much better. Thus, in 2021, Ukraine's exports of titanium and titanium products reached 6.1 thousand tons, of which 92.3% were supplies of unprocessed titanium and scrap, while the share of products (bars, rods, tubes, pipes, etc.) was only 7.7%. It is noteworthy that in value terms, supplies of unprocessed titanium brought only2/3 of foreign exchange earnings from the export of all titanium products, while extremely small physical volumes of titanium products exports provided the remaining 1/3 of foreign exchange earnings.

Thus, Ukraine can significantly help the EU diversify its supply of a number of critical materials, guarantee their price stability, and reduce the EU's vulnerability to geopolitical adversaries in the most sensitive supply chains. As a result, this will strengthen the sustainability of the green transition, accelerate the modernization of a number of strategic sectors of the European economy, and return the EU to development dynamism and global leadership on the world stage. Given these prospects, Ukraine has every reason to demand its rightful place in value chains built on the use of critical materials.

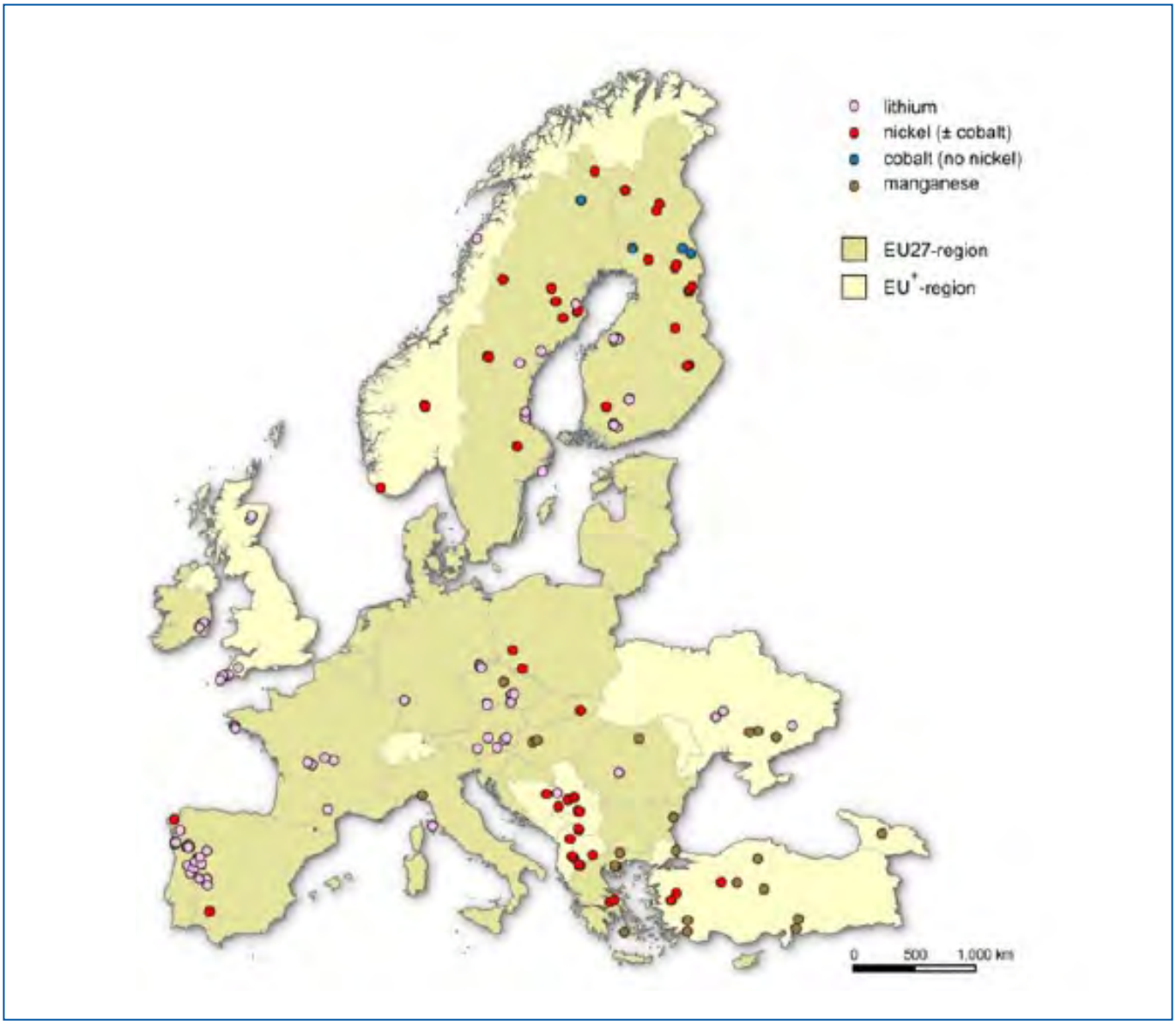


Fig. 3.3. Deposits of some critical materials in the EU and within its «direct sphere of influence» (EU region) +

Source: The future of European competitiveness: In-depth analysis and recommendations. P. 53.
https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en

10 Chaika O. Ukraine almost missed the lithium fever, although it has large deposits / Forbes. Access mode: https://forbes.ua/company/ukraina-mayzhe-progavila-litievu-likhomanku-khocha-mae-veliki-pokladi-khto-spodivaetsya-zaskochiti-v-ostanniy-vagon-akumulyatornogo-bumu-17072023-14805

3.1.2. Strengthening the industrial potential and competitiveness of the EU

The prospects for Ukraine's involvement in the reconfiguration of global value chains controlled by European businesses are not limited to critical materials. A study conducted by the European Commission's Joint Research Center in 2024 revealed a lack of strategic autonomy of the EU and, accordingly, high vulnerability of the European economy in a number of industrial ecosystems and strategic technologies[11]. In particular, the EU is overly reliant on imports from third countries of textile products, electrical equipment, digital systems, aerospace and defense products. At the same time, the EU is lagging behind in the areas of aeronautics, construction and production of equipment for the use of renewable energy sources (RES). There is also a significant lag in the development by European corporations of their own information and telecommunications technologies, healthcare technologies, technical solutions for robotization of production and manufacturing of machinery and equipment for the processing industry. A glaring lack of autonomy is also noted in the production of semiconductors, the technological ability to produce chips and individual materials for them.

In a number of sectors, the problem of lack of production capacity and technological lag is exacerbated by a significant concentration of supplies of certain goods and technologies from countries that are rated as high-risk trading partners. Among these countries are China, India, Turkey, Brazil, Argentina, South Africa, russia and belarus, Bangladesh, Vietnam, Malaysia, Mexico, etc. These countries account for 70-75% of the EU's imports of textile and construction products, about 30% of imports of agricultural products and energy-efficient equipment. In the context of strategic autonomy, trade flows and value chains connecting the EU with these countries are unreliable and subject to urgent diversification, and in the long run - redirection to the EU internal market and/or to more reliable (friendshoring) and geographically closer (nearshoring) partner countries. Ukraine is one of the most obvious and promising partners for the EU to achieve these goals. And not only as a friendly and neighboring country that shares common values, but also as an economy that, despite all the challenges, retains sufficient human, production and innovation potential in a number of industries and technologies strategically important for EU leadership.

First, the relocation of production processes and value chains controlled by European companies to Ukraine will have a positive impact on reducing their transportation and logistics costs due to the close geographical proximity to the EU market. The current agreement on freight liberalization between Ukraine and the EU is an important factor for success in this area. At the same time, reducing the transportation leverage will also contribute to the fight against climate change, as the transportation sector remains one of the main sources of greenhouse gas emissions, accounting for about 20% of global CO_2 emissions[12]. The location of a number of production facilities in Ukraine will allow European companies to save costs and labor, at least compared to the alternative of returning production to the EU or neighboring highly developed countries (UK, Norway, Switzerland, etc.).

Secondly, an important advantage for European corporations will be the location of production processes in a country with similar political, economic and social values, which has a Deep and Comprehensive Free Trade Agreement and an agreement on economic and sectoral cooperation with the EU, a candidate status for EU accession, and is therefore in the process of harmonizing its legislation with the common legal framework of investor countries, in particular in the area of introducing high standards of quality and product safety. The trade and economic policy coordinated with the EU, combined with common geopolitical interests, creates exceptionally favorable preconditions for Ukraine's integration into global production networks of European businesses, which, in the current environment of growing contradictions and disagreements between the world's largest players, seek to reduce the risks of possible supply chain disruptions.

Third, Ukraine has significantly expanded its economic policy aimed at developing industrial production in recent years. The relevant list of mechanisms and tools includes expanding incentives for investment in the development and production activities in industrial parks (soft loans, tax benefits, funds for park development, compensation for the cost of connection and connection to engineering and transport networks, etc.), a program of partial compensation for the cost of agricultural machinery and equipment of domestic production, expanding the practice of insurance of foreign trade contracts and investments by the Export Credit Agency, applied

Despite the unprecedented destruction of Ukraine's industrial potential as a result of hostilities and terrorist attacks, the active use of state support mechanisms demonstrates the dynamism of domestic industry development even in extremely unfavorable security conditions (Fig. 3.4).

The system of state support for industrial development, which is being actively developed in Ukraine, undoubtedly contributes to improving the country's investment attractiveness and can serve as an additional factor in increasing the competitiveness of European companies in international markets. At the same time, deepening the level of localization of their production in Ukraine will help expand their access to the domestic public procurement market.

Fourth, the location of production facilities and the organization of supply chains in Ukraine will greatly facilitate the participation of European businesses in rebuilding infrastructure that has been partially or completely destroyed as a result of hostilities and terrorist attacks. According to available estimates, as of January 2024, the total amount of direct damage to Ukraine's infrastructure during the war reached $154.9 billion, including $13.1 billion in losses to industrial enterprises, $9.0 billion in energy, and $8.7 billion in agriculture. 250,000 residential buildings were completely destroyed or damaged, including 222,000 private houses, more than 27,000 apartment buildings,

11 Kroll H. Assessing Open Strategic Autonomy. Publication Office of the European Union. Luxembourg, 2024. https://publications.jrc.ec.europa.eu/repository/handle/JRC136359

12 Francisco D.B. Albuquerque et al. (2020). Greenhouse gas emissions associated with road transport projects: current status, benchmarking, and assessment tools. Transportation Research Procedia, Vol. 48. DOI: https://doi.org/10.1016/j.trpro.2020.08.261

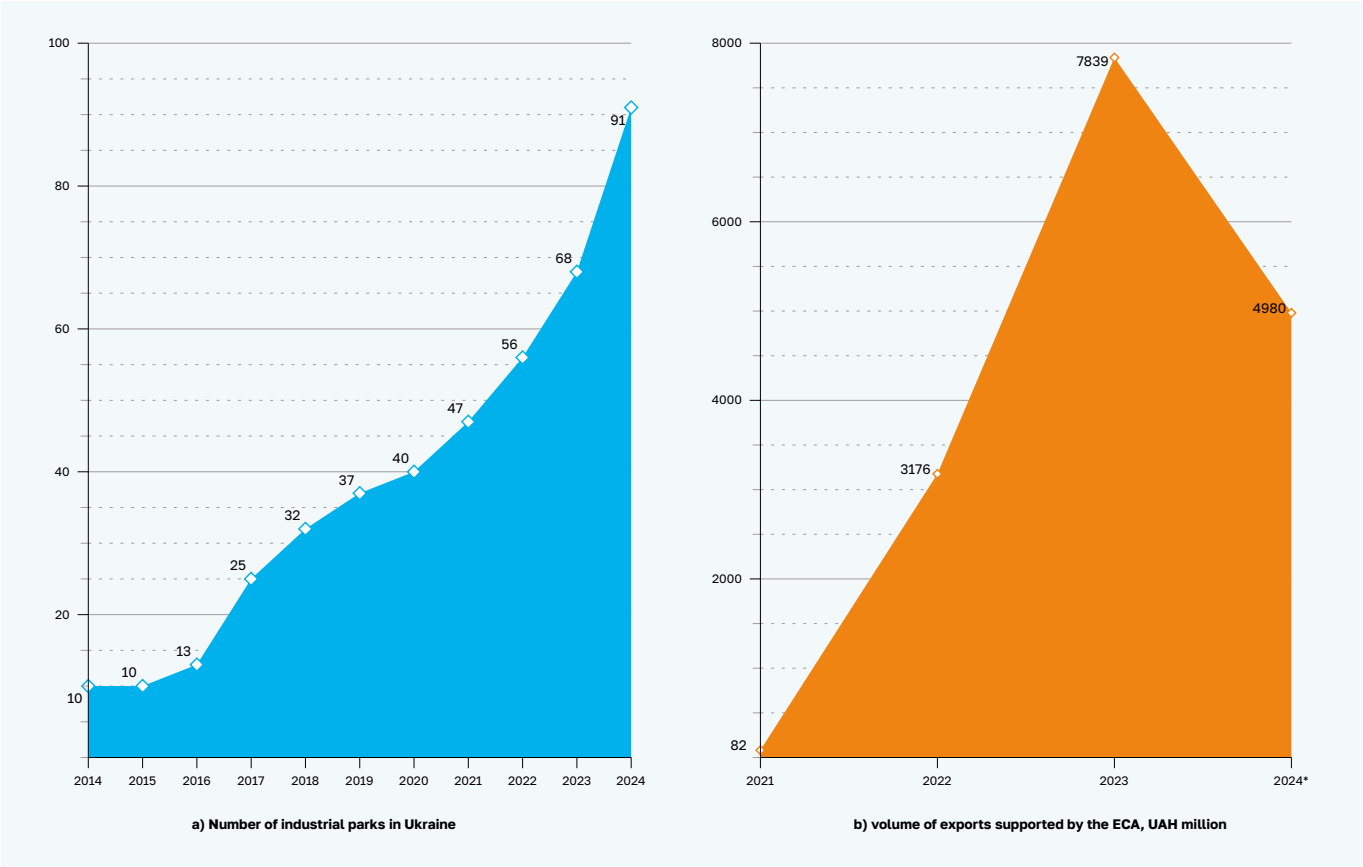


Fig. 3.4. Dynamics of development of the industrial parks network and export support by ECA in Ukraine

Notes:

a) data as of January-August 2024.

b) data on industrial parks excluding those that were later excluded from the register.

Джерела: 1) Information on industrial parks included in and excluded from the register of industrial parks. https://me.gov.ua/Documents/Detail?lang=uk-UA&id=336993e7-8713-43da-8de6-ce4c5d003bfa&title.
2) Results of the ESA's work. https://www.eca.gov.ua/

and 526 dormitories. Seventy-eight small, medium, and large private companies, as well as 348 state-owned enterprises, have been destroyed. Since the beginning of the full-scale invasion, at least 160,000 pieces of agricultural machinery, about 16,000 pieces of public transport, 3,800 educational institutions, 1,800 cultural institutions, 426 hospitals and pharmacies, 348 religious institutions and other facilities have been damaged, destroyed or seized[13].

Obviously, the reconstruction of the above-mentioned infrastructure facilities will be carried out on the principle of priority use of production capacities and creation of new jobs within the country, use of local resources, and increased participation of local small and medium-sized enterprises in reconstruction programs. European companies that locate the production processes necessary for the reconstruction in Ukraine in a timely manner will thus secure the most favorable conditions for participation in relevant programs and government contracts.

Fifth, Ukraine still retains sufficient potential to strengthen Europe's technological competitiveness in the defense industry, aerospace, digital transformation, and other strategic sectors in which the EU is most vulnerable in the context of strategic autonomy. Participation in the largest military conflict since World War II contributed to the development of the latest types of weapons, modernization and new methods of using traditional military equipment and machinery, and the accumulation of unique knowledge and know-how in the use of unmanned aerial vehicles (UAVs), rocket artillery, missile systems, and a number of other means of destruction. At the same time, Ukraine continues to largely retain its human and technological potential for the production of space systems (launch vehicles, spacecraft, ground control and data processing centers) and most aviation platforms (for reusable spacecraft, passenger and military transport), research and development, production, operation of rocket and space and aviation equipment, and utilization. Significant progress in the areas of public digital services, cybersecurity, information security, and integration of the IT sector into international information ecosystems has already provided Ukraine with regional leadership in a number of niches related to the use of information and telecommunications technologies. Thus, establishing close cooperation with Ukrainian business will help overcome the EU's inertia, vulnerability and lagging behind in key high-tech sectors of the economy, boost innovation, and strengthen economic resilience and security in the face of growing geopolitical tensions and contradictions in the coming decades.

The domestic economy also continues to play an important role in maintaining and strengthening the EU's

13 The total amount of damage to Ukraine's infrastructure has increased to almost $155 billion - KSE Institute estimate as of January 2024. https://kse.ua/ua/about-the-school/news/zagalna-suma-zbitkiv-zavdana-infrastrukturi-ukrayini-zrosla-do-mayzhe-155-mlrd-otsinka-kse-institute-stanom-na-sichen-2024-roku/

competitiveness in many other sectors. For example, the EU economy has benefited greatly from the rapid development of the woodworking and furniture industry in Ukraine. In 2012-2021, production in the woodworking industry grew by 32.2%, while the country's overall industrial production index fell by 20%. Exports of furniture tripled during this period, with outstripping growth in commercial furniture. The production and export of related commercial equipment, which has become an integral part of Ukraine's integration ties with the EU, also took off. Positive effects for European business from the development of these processes were as follows:

- **growing demand of Ukrainian woodworkers for innovative equipment from European manufacturers. In 2014-2021, supplies of woodworking machines (UKTZED code 8465) from the EU to Ukraine increased from 10.1 thousand to 24.6 thousand units per year;**
- **the creation of a favorable investment climate that encouraged world-class manufacturers to invest in setting up production in Ukraine. According to the NBU, foreign direct investment (FDI) in Ukraine's economy in CEA 16.2 «Manufacture of wood products» increased from USD 58.9 million to USD 301.0 million in 2015-2021. USD, and in CEA 31.0 «Furniture production» - from 115.4 million to 164.6 million USD. THE TOTAL AMOUNT OF THE COMPANY'S SALES INCREASED FROM USD 115.4 MILLION TO USD 164.4 MILLION. As of 2021, about 77.0% of these investments were FDI from EU countries.**

At the same time, it was possible to achieve an environmental effect, which consists in reducing the volume of logging and increasing the level of forest cover in Ukraine, which contributes to the implementation of the EU's ambitious goals of decarbonizing the economy and transitioning to a climate-neutral Europe by 2050. Obviously, in order to preserve the stability and sustainability of mutually beneficial cooperation between Ukraine and the EU in the development of the domestic furniture and woodworking industries, it would be advisable to extend these restrictions, in particular to prevent the outflow of valuable wood raw materials to China.

The domestic cement industry also plays an important role for European businesses, whose production capacity is currently supported largely by investments from EU multinationals. For example, the production facilities of CEMARK and Dyckerhoff, together with the domestic IFCEM, provide a significant share of demand for cement in the domestic market of Ukraine and exports to the EU, which account for 87.8% of supplies to foreign markets.

The integration of the Ukrainian mining and metals sector and the European steel industry through the development of green metallurgy is fundamental. The Interpipe Steel electric arc furnace complex is undoubtedly a model in this area, where CO_2 emissions are ten times lower and natural gas consumption is eight times lower compared to the open-hearth steelmaking process. The plant was financed through the Italian export credit agency Sace. The environmental impact audit was carried out exclusively by Fichtner, a European accredited partner of ECA. Upon completion of the construction, the environmental compliance was checked by official EU inspectors. In the process of rebuilding the domestic industry and integrating into the EU, Ukraine needs to scale this positive experience to the entire steel industry.

Ukrainian exports of wheelsets are of strategic importance for the EU railcar industry, covering about half of the European market's demand for wheels for freight railcars. Given the prospect of modernizing and integrating the Ukrainian railroad network into the European one, domestic railcar building and production of a range of ferrous metal products are essential to the success of this project.

The participation of the domestic chemical industry, particularly in the production of pharmaceuticals and green fertilizers, in addressing the EU's strategic challenges is seen as promising. If the current development problems are overcome and sufficient investments are made in production modernization, they will be important in the European market, in particular in ensuring the EU's food security.

Box 1 looks at the case of the prerequisites and opportunities for increasing Ukrainian ethanol exports to the European market and the prospects for strengthening the EU's strategic autonomy and renewable energy sector in the context of intensifying closer trade and economic relations in this area.



Box 1: Ethanol

The abolition of the state monopoly on alcohol production in Ukraine on July 1, 2020, had a positive impact on the dynamics of the industry, including in terms of trade and economic relations with the EU. While until 2019, total ethanol exports from Ukraine did not exceed 8 thousand tons per year, in 2020-2021 it reached 24.8-27.5 thousand tons, in 2022 - 41.3 thousand tons, and in 2023 - 72.9 thousand tons. In 2023, 92.7% of Ukraine's ethanol exports went to the EU countries, and another 6.8% were supplied to EFTA countries - the UK, Norway, and Switzerland.

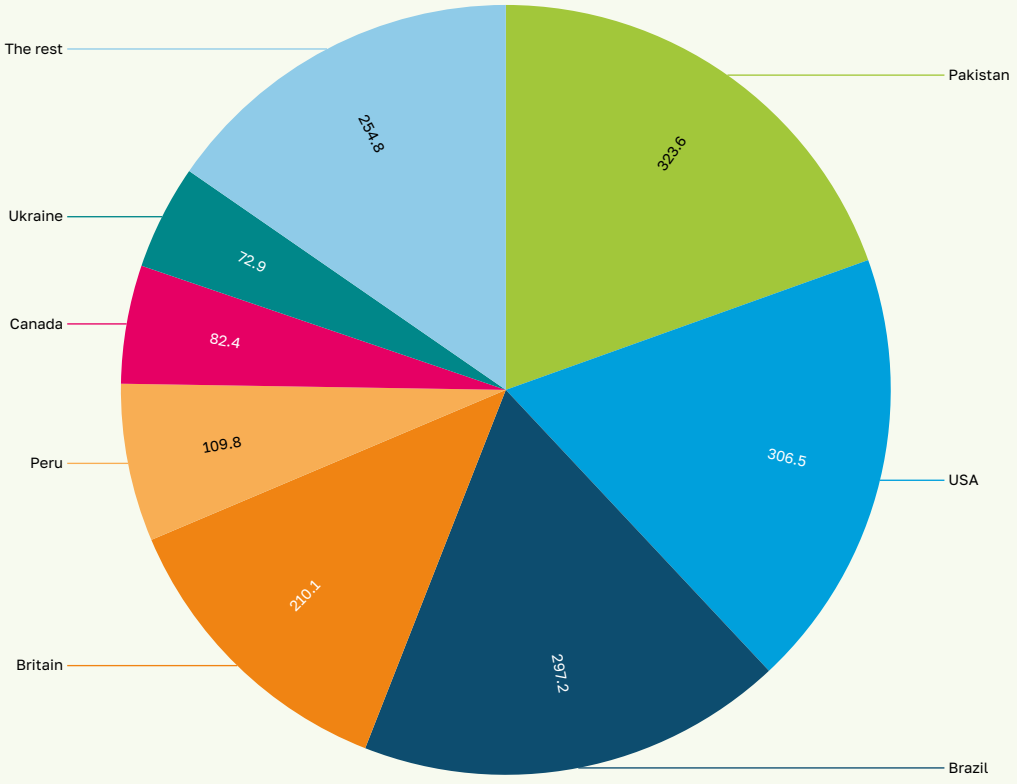
The industry is developing dynamically despite the challenges of wartime. Production capacity already reaches about 240 thousand tons per year, and two investment projects are planned to expand it. It should be noted that as part of the Association Agreement, the EU granted Ukraine a duty-free tariff quota, which increased from 16.7 thousand to 100 thousand tons per year in 2014-2021. So far, the volume of supplies has not exceeded the quota, but given the dynamics of development, Ukrainian ethanol exports will soon exceed 100 thousand tons. Therefore, the abolition of the quota by the EU starting in 2022 was a very important step for the industry.

Since the decision to extend this preference is reviewed annually, it is imperative to seek its permanent extension. Especially since some obstacles to ethanol's access to the EU market have already been encountered:

- When the blockade of Ukrainian agricultural products was organized, ethanol was also temporarily banned from importation into five neighboring EU countries;
- the EU internal legislation established a rule on the non-recognition of molasses ethanol as second-generation ethanol (ethanol from non-food raw materials), which resulted in Ukrainian ethanol exporters losing EUR 200 of the environmental premium in the price of their products, which negatively affected supplies to the EU, as molasses ethanol prevails in the structure of domestic ethanol exports.

Such steps by the EU seem extremely inappropriate, as the community itself is actively increasing the consumption of ethanol as a component of biofuels as part of the green transition. During 2017-2022, industrial ethanol consumption in the EU increased by 1.2 million liters (in terms of pure alcohol), while in the food industry - by only 0.2 million liters. Ethanol imports to the EU during this period increased 2.3 times. Given the legislatively established plans to increase the share of biofuels in the EU's energy consumption, this trend will only intensify. At the same time, a significant share of ethanol imports to the EU is concentrated in geopolitical competitors, which are assessed as risky suppliers in terms of strategic autonomy.

In 2023, 44.1% of the EU's ethanol imports came from Pakistan, Brazil, and Peru, while Ukraine accounted for barely 4.4% of imports and its share in the EU consumption structure was 1.1%. Thus, it is advisable for the EU to diversify its imports and rely more on supplies from Ukraine (which, it should be noted, is also implementing EU regulations on biofuel standards in the energy balance, so it will soon increase domestic ethanol consumption and is unlikely to threaten total expansion into the EU market).



3.1.3. Ensuring food security in the EU

On current trends, global warming is likely to exceed 1.5°C within the next two decades and will be heading for 2°C by 2050. The first year of global temperatures at this level could occur in the next five years. An increase in average air temperature by each additional half a degree will increase the intensity and frequency of extreme weather events, droughts, forest fires, and floods, including in places where they were rare before. Already, a number of countries in the Global South are facing a significant complication of climatic conditions for agriculture, resulting in massive deforestation to expand the area of agricultural land, which in turn also acts as a factor of further climate change. Therefore, in the near future, the global food market will undergo dramatic transformations, as climate change and the resulting environmental degradation will certainly distort the supply and demand relationship and food trade itself in the main regions of its production, including the EU. Given the close interconnectedness of markets in today's globalized economy, volatile conditions and sudden price spikes for basic food products, even in remote regions, will have serious socio-economic, migration, and security consequences around the world.

Global challenges and crises are also increasing tensions in the EU food market itself: combating climate change and the energy crisis is pushing for the development of biofuel production, which requires more and more land to produce the necessary biomass; policies to reduce greenhouse gas emissions from the use of mineral fertilizers are driving up the cost of agricultural products; relentless urbanization and the massive reluctance of young people to take over the work of the older generation in rural areas (with a growing negative attitude to migration processes) are driving up the cost of agricultural products. Against this background, a number of EU agricultural regions are facing the devastating consequences of growing climate instability. It is also noted that there is a lack of strategic autonomy in a number of areas of agricultural production, in particular, in 2024, the EU Council of Ministers in the format of the «AGRIFISH Council» testified to the urgent need to strengthen autonomy in terms of providing vegetable protein, noting: **«Today, Europe relies (heavily) on imports for its vegetable protein sources for consumption by both animals and humans. This dependence on imports has not only economic, but also significant environmental, climate (in particular through land use change in the country of origin) and health impacts»**[14].

Ukraine, with its considerable agricultural potential, obviously remains an indispensable source of food security for the EU, both in the context of minimizing the negative effects of global food crises on the continent and in ensuring strategic autonomy in the agricultural sector and strengthening the EU's position in the global food market. Ukraine is one of the largest producers of agri-food products in the world: in 2021, it harvested more than 100 million tons of grains and oilseeds. Ukraine's black soil and climatic conditions are well suited for growing wheat, corn, barley, and other crops. Domestic poultry production is also extremely developed: since 2012, Ukraine has been producing more than 1 million tons of poultry meat annually and is among the top 20 producers of this product in the world. At the same time, expected climate change is unlikely to have a significant impact on the competitive advantages of Ukraine's agricultural sector in international markets.

According to the Ministry of Agrarian Policy of Ukraine, Ukrainian grain and oilseed exports feed about 400 million people worldwide each year, which is about 5% of the world's population. Most of Ukraine's grain and livestock products are exported to the countries of the Global South. Accordingly, the domestic agricultural sector is one of the guarantors of global food security. Affordable Ukrainian agricultural products have been and will continue to be not only an economic but also a social factor. In the context of the global food crisis caused by the pandemic, war, and climate change, Ukrainian products help to meet the demand for food in vulnerable regions such as Africa, East and Southeast Asia, and the Middle East. Ukrainian food remains an important factor in stabilizing prices on global markets, helping to reduce the risks of hunger and mass migration, and ensuring food accessibility for millions of people.

At the same time, the Ukrainian agricultural sector acts as a stabilizer of food security not only globally but also on the European continent: over the years, including during the years of unpredictable crop failures in the EU caused by climate change, Ukraine has proven to be a reliable supplier that helps meet demand for agricultural products. In times of crisis, Ukrainian exports act as a stabilizing factor for the European market, compensating for domestic deficits and ensuring continuous access to food. Due to competitive prices and stable supplies to the global market, Ukrainian agricultural products help to balance food prices and prevent or mitigate the effects of most food crises.

In the prospect of EU membership, Ukraine will be able to offer the community a new model of agricultural production focused on developing competitiveness and innovation rather than total dependence on EU Common Agricultural Policy (CAP) subsidies. Taking into account the EU's focus on strategic autonomy, Ukraine will be able to help it reduce its dependence on food imports from third countries such as the United States, Brazil, or Pakistan, which will create additional security for European consumers in the context of today's global challenges. Thus, Ukraine's membership in the EU should not be seen as a cost, but as an investment in the economic stability and development of the whole of Europe: a stronger agricultural sector in Ukraine will contribute to the economic and food security of the EU as a whole.



14 https://www.agriland.ie/farming-news/eu-agri-ministers-to-seek-greater-autonomy-in-proteins/

3.1.4. Easing the burden of Ukraine's integration into the EU's common market

Finally, it should be noted that the EU's interest in integrating Ukraine as closely as possible into its value chains and facilitating its rapid economic development is determined, among other things, by the prospect of minimizing future costs of equalizing economic and employment development during and after Ukraine's membership in the EU. The relevant expenditures are made from the Cohesion Fund for member states with a gross national income (GNI) per capita of less than 90% of the EU average and are intended to help reduce economic and social inequality and promote sustainable development. In 2023, more than €14.2 billion was allocated from this Fund, with 15 countries receiving funds: Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, and Slovenia[15]. The threshold value of GNI per capita for aid recipient countries in 2023 was 36.3 thousand dollars. While in Ukraine, the GNI per capita amounted to only 5.1 thousand dollars. This is the lowest indicator compared to all other EU countries (Fig. 3.5).

However, spending from the Cohesion Fund is far from the only mechanism for bringing less developed EU countries closer to more prosperous ones. The EU's «cohesion policy» provides for catch-up spending in member states from a number of other sources, including: European Regional Development Fund (ERDF), Just Transition Fund (JTF), European Social Fund+ (ESF+), European Territorial Cooperation (Interreg), and other technical assistance instruments and programs managed by the European Commission. The largest recipient of aid under the EU cohesion policy is Poland, which received about €8.2 billion a year in 2014-2020 alone. Obviously, Ukraine, with a per capita GNI four times lower than in Poland, will need many times more spending to equalize its economic development. For example, the Institute for German Economics (IW) estimates that if Ukraine were to join the EU next year, the cohesion policy towards it would cost donor countries between 50 billion and 90 billion euros[16] over five years.

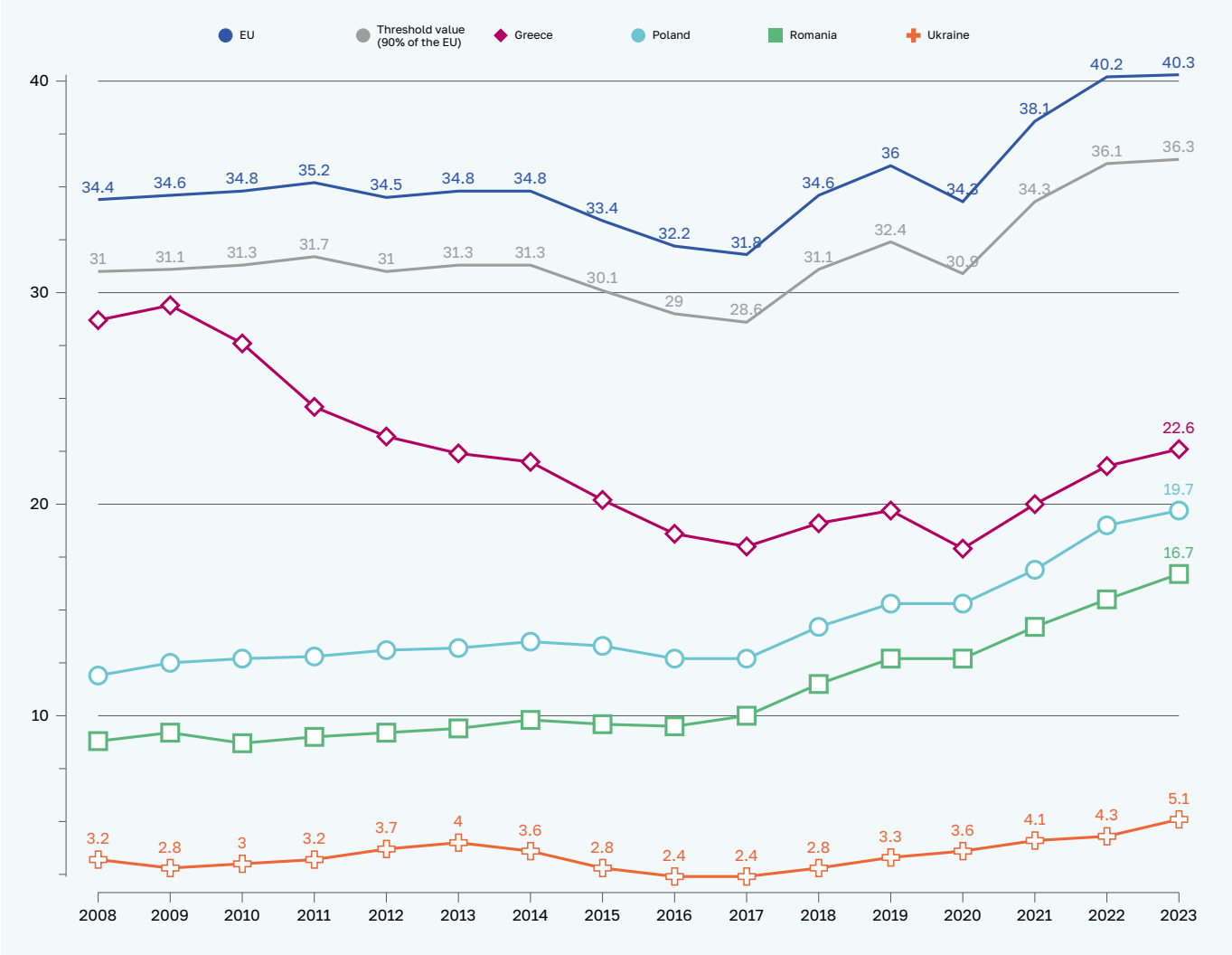


Fig. 3.5. Dynamics of gross national income per capita on average in the EU and in individual countries in 2008-2023, thousand USD in current prices

Source: GNI per capita, Atlas method (current US$) / The World Bank data. Retrieved from: https://data.worldbank.org/indicator/NY.GNP.PCAP.CD?locations=EU

15 Cohesion Fund 2014-2020 / European Commission. https://ec.europa.eu/regional_policy/funding/cohesion-fund/2014-2020_en

16 Busch B., Sultan S. Folgen eines EU-Beitritts der Ukraine für den Haushalt und die Kohäsionspolitik / Institut der deutschen Wirtschaft. IW-Report 63/2023. https://www.iwkoeln.de/fileadmin/user_upload/Studien/Report/PDF/2023/IW-Report_2023-EU-Erweiterung.pdf

3.2. Current challenges on the «Ukraine-EU» negotiation agenda

3.2.1. Exclusion of Ukraine from the scope of the CBAM

The EU views the Carbon Border Adjustment Mechanism (CBAM) as an important element of its strategic autonomy, aimed at preventing potential carbon leakage during the implementation of the policy to transition to a carbon-neutral Europe by 2050. CBAM serves as a means to level the playing field regarding carbon emissions payments between European producers and those from other countries supplying goods to the EU market, in order to prevent the relocation of high-carbon-emitting production from the EU to jurisdictions with less stringent climate requirements, as well as the increase of imports into the EU of products that will compete due to lower climate costs compared to those borne by local businesses.

On October 1, 2023, the EU began the transitional phase of implementing CBAM, which will last until the end of 2025. This mechanism applies to goods whose production results in the most intensive greenhouse gas (GHG) emissions—such as agglomerated iron ores and concentrates, ferrous metals and products, aluminum, fertilizers, clinker and cement, electricity, and hydrogen. During the transitional period, exporters of these products must provide their EU counterparts with information on direct and indirect GHG emissions related to their production; however, additional charges for these emissions are not yet being imposed. The transitional period is intended to serve as a learning phase for all stakeholders (importers, producers, authorities) and to gather useful information on industrial GHG emissions with the goal of improving the methodology for their calculation.

Starting from 2026, importers in the EU will pay a «tax» on carbon emissions. It will be calculated based on the amount of GHG emissions resulting from the production of goods («carbon footprint») and the cost of those emissions, which will be equal to the price on the EU Emissions Trading System (EU ETS) carbon certificate market. In fact, the Carbon Border Adjustment Mechanism will complement the EU ETS, within which special CBAM certificates will be introduced for companies importing carbon-intensive products into the EU. The price of CBAM certificates will be determined based on the weekly auction price of GHG emission quotas within the EU ETS, expressed in euros per ton of CO_2 emissions. Thus, EU importers will buy CBAM

Table 3.1. Dynamics of Ukrainian CBAM-covered exports to the EU in 2019-2024

Product groups	Indicators	2019	2020	2021	2022	2023	And half. 2024
Iron ore; ferrous metals and products	mln. U.S. DOLLARS	4 122,2	3 037,8	7 029,1	3 661,4	2 918,7	1 809,2
	Share in the SBAM group, %.	88,4	87,1	91,7	83,0	92,1	92,5
	EU share in exports, %.	38,8	31,3	43,5	56,4	72,0	70,0
Cement	mln. U.S. DOLLARS	27,1	36,7	52,7	61,2	94,2	59,7
	Share in the SBAM group, %.	0,6	1,1	0,7	1,4	3,0	3,1
	EU share in exports, %.	84,3	76,2	90,9	90,3	87,1	91,5
Fertilizers	mln. U.S. DOLLARS	128,5	166,9	347,5	232,7	46,6	10,1
	Share in the SBAM group, %.	2,8	4,8	4,5	5,3	1,5	0,5
	EU share in exports, %.	26,4	22,7	39,3	95,0	92,5	99,7
Aluminum	mln. U.S. DOLLARS	25,3	25,8	52,1	56,9	65,9	37,1
	Share in the SBAM group, %.	0,5	0,7	0,7	1,3	2,1	1,9
	EU share in exports, %.	28,3	26,5	34,8	61,2	68,5	77,1
Electricity	mln. U.S. DOLLARS	362,6	219,7	187,1	397,8	45,3	39,3
	Share in the SBAM group, %.	7,8	6,3	2,4	9,0	1,4	2,0
	EU share in exports, %.	89,0	94,6	96,9	90,8	78,3	82,0
Together	**mln. U.S. DOLLARS**	**4 665,7**	**3 487,0**	**7 668,6**	**4 410,1**	**3 170,7**	**1 955,4**
	Share in Ukraine's exports of goods to the EU, %.	**21,2**	**18,7**	**27,0**	**15,2**	**13,0**	**14,7**

Source: World Integrated Trade Solutions. Trade Data: Advanced Querry (UN COMTRADE). URL: https://wits.worldbank.org/Default.aspx

certificates corresponding to the price of CO_2 that would be paid if carbon-intensive goods were taxed according to EU rules. If producers from third countries can prove that they have partially or fully paid for CO_2 emissions incurred during the production of their goods in their country, the corresponding cost will be deducted for the importer in the EU.

The commodity groups covered by CBAM play an important role in Ukrainian exports. Given the blockage and constant risks of disruptions in traditional trade routes, the EU market has become the main geographic vector for the sale/transit of these goods to foreign markets (Table 3.1).

In 2023, Ukraine's export to the EU of CBAM-covered products amounted to $3.17 billion, representing 13.0% of total Ukrainian exports to EU countries. In the first half of 2024, these exports reached $1.96 billion, or 14.7% of total Ukrainian exports to the EU. In value terms, the largest share of these exports comes from the mining and metallurgical complex (iron ore, ferrous metals, and some products made from them): in 2023, this accounted for 92.1% of all goods exported from Ukraine to the EU subject to CBAM; by the end of the first half of 2024, this share increased to 92.5%. It is important to note that since the beginning of the large-scale war, the EU has become a key market for Ukrainian mining and metallurgical products, with the EU's share in the geographical structure of exports growing from 31.3% in 2020 to 72.0% in 2023. In the first half of 2024, this share remained high, standing at 70.0%.

Although other Ukrainian industries covered by CBAM have relatively smaller export volumes, sales to the EU market are no less significant for their development. For instance, Ukrainian CBAM-covered cement exports to the EU increased from $27.1 million to $94.2 million between 2019 and 2023, and the EU's share in total exports of this product during this period increased from 76.2% to 90.9%. Similarly, exports of aluminum from Ukraine to the EU grew rapidly – from $25.3 million in 2019 to $65.9 million in 2023, with the EU's share in the geographical structure of these exports rising from 28.3% to 68.5%. In the first half of 2024, these product groups continued to show a positive export growth trend to the EU. As for the export of fertilizers and electricity, it has almost completely stopped due to targeted russian attacks on Ukrainian energy infrastructure and certain difficulties faced by Ukraine's chemical industry in accessing energy resources and raw materials, but the small remaining export volumes are mainly directed to the EU market.

The biggest challenge posed by CBAM for these sectors in Ukraine is the high carbon emission price established on the EU Emissions Trading System market, which will be used to calculate additional fees on Ukrainian products when supplying them to the EU after the transition period ends in 2026 (Fig. 3.6).

During 2019-2020, the cost of certificates for a ton of CO_2 emissions under the EU ETS did not exceed 30 euros. However, as the EU adopted more ambitious plans to decarbonize its economy and introduced stricter measures to accelerate the green

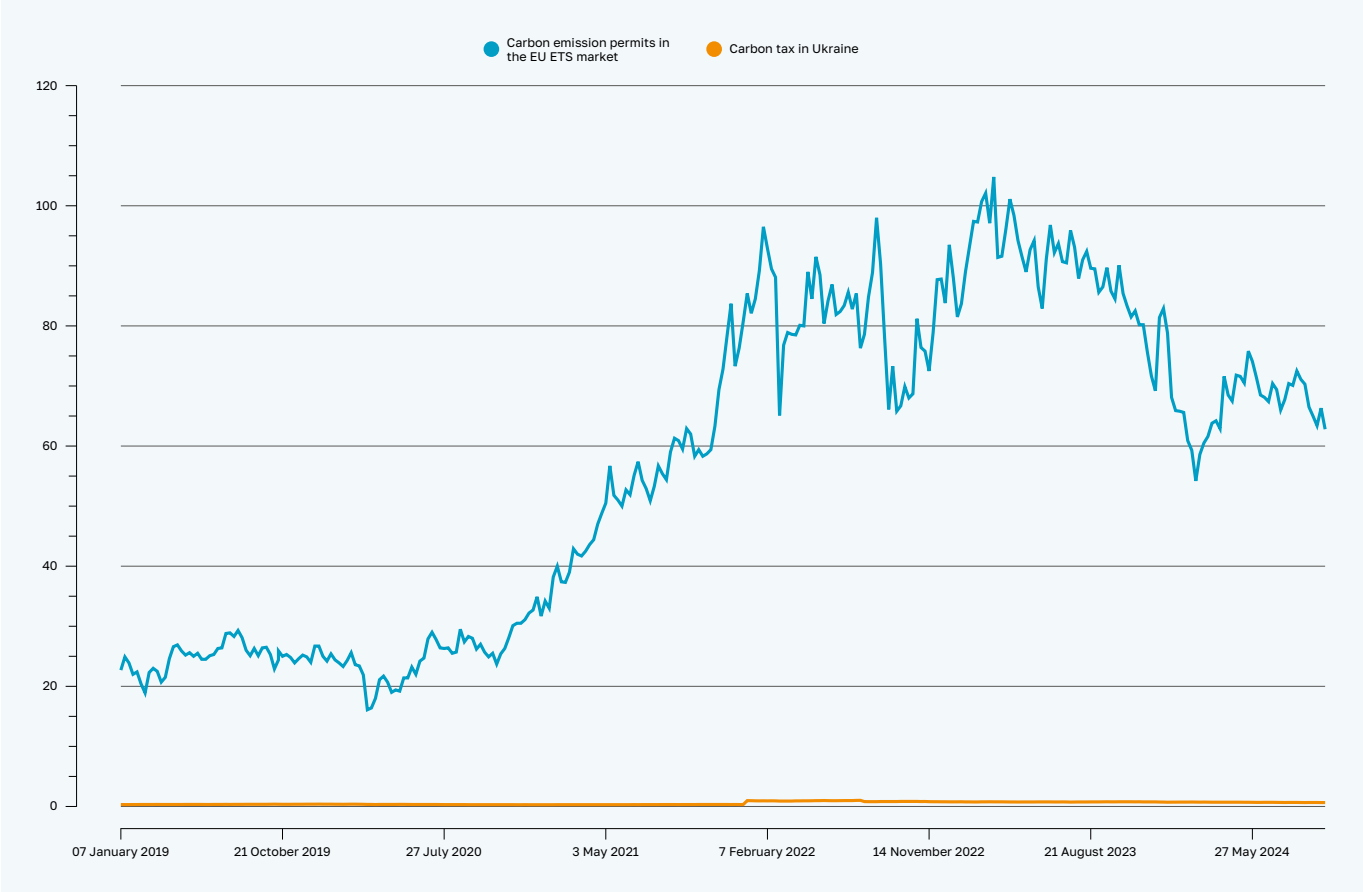


Fig. 3.6. Dynamics of carbon emission permit prices in the EU ETS and carbon tax in Ukraine in 2019-2024, EUR/t CO_2

Note:

1. The amount of carbon tax in Ukraine was calculated by the authors based on the official NBU EUR/UAH exchange rate in the respective periods.

Sources: Carbon Emissions Allowances Prices sourced from the European Union Emissions Trading System (EU ETS) / Trading economics. https://tradingeconomics.com/commodity/carbon

transition, the cost of one ton of emissions under the EU ETS rose to 92.9 euros at the end of January 2022. In the face of the shock caused by the EU's sanctions on russian energy imports, the price of GHG emissions continued to rise and peaked at 104.8 euros per ton in March 2023. Since then, the cost of emissions has decreased and stabilized at 62.8 euros per ton as of the end of September 2024. According to Enerdata (an independent research company specializing in the analysis and forecasting of energy and climate issues), the price of one ton of CO_2 emissions under the EU ETS will remain at around 70-75 euros by the end of this decade. However, after 2030, when the EU further tightens decarbonization requirements for energy and industry, the price of emissions will continue to rise and reach 140 euros per ton in 2040, and then jump sharply to 500 euros per ton in 2044 as we approach the ultimate goal of building a climate-neutral Europe by 2050.[17]

It is important to emphasize that in the EU, there is currently a practice of allocating free carbon emission allowances to protect the competitiveness of energy-intensive industries. Between 2026 and 2034, it is planned to gradually reduce the annual number of free allowances issued until this practice is completely phased out. (Table 3.2).

Table 3.2. Planned reduction in the issuance of free GHG emission permits in the EU, % of the 2025 level

2026	97,5
2027	95,0
2028	90,0
2029	77,5
2030	51,5
2031	39,0
2032	26,5
2033	14,0
2034	0,0

Source: CBAM Factsheet [18]

European Parliament Regulation (EU) No. 2023/956 of May 10, 2023[19], which introduces the CBAM takes this feature into account and specifies that the full cost of ETS certificates for EU importers should be introduced gradually as the issuance of free GHG emission allowances under the EU ETS is phased out. The Directive does not set out specific mechanisms for the impact of this factor on the adjustment of the price of CBAM certificates. However, in any case, even during this transition period, the CBAM will be many times, if not an order of magnitude, higher than the cost of CO_2 emissions in Ukraine, essentially playing the role of a prohibitive duty on imports of the relevant Ukrainian products to the EU.

Obviously, in the context of the ongoing war, industrial enterprises will not have sufficient investment resources to carry out a major modernization of production facilities to reduce greenhouse gas emissions. Moreover, in the context of unprecedented security challenges, this type of modernization cannot objectively be high on the list of business priorities. The Ukrainian state also does not have the resources for a policy to stimulate decarbonization of production.

Under such circumstances, it is quite justified and fair to exclude Ukraine from the financial components of the CAA, especially since the EU has laid down all the legal prerequisites for granting such an exception. Thus, according to Article 30(7) of Directive 2023/956 of 10.05.23: **«If an unforeseeable, exceptional and unprovoked event occurs which is beyond the control of one or more third countries covered by the CBAM and that event has a devastating effect on the economic and industrial infrastructure of that country or countries, the Commission shall assess the situation and submit to the European Parliament and the Council a report, accompanied where necessary by a legislative proposal, amending this Regulation, identifying the necessary temporary measures to address those exceptional circumstances»**[20].

In view of the above, we can welcome the government's decision to start negotiations with the European Union on the exclusion of Ukraine from the CBAM, as well as the achievement of an understanding of common legal approaches to resolving this issue, in the sense that the relevant decision will be initiated by the European Commission. The content of the decision on exclusion remains an open question. In the short term, the optimal regime would be one in which importers to the EU would not be obliged to purchase CBAM-certificates when importing carbon-intensive goods from Ukraine, while the current transitional regime of CBAM would remain in place, under which Ukrainian exporters would continue to provide their EU counterparties with information on direct and indirect GHG emissions associated with the production of their products without charging for these emissions. In this context, it is also important to reach an agreement in principle with the European side on mutual recognition of the results of verification of greenhouse gas emission reports submitted by companies.

In the future, Ukraine's exemption from the CBAM will likely be based on the introduction of a national emissions trading system in Ukraine (similar to the EU ETS) and the implementation of the CBA mechanism at Ukraine's external borders, i.e., for imports of goods subject to European regulation from third countries.

17 Carbon price forecast under the EU ETS: Executive brief – November 2023 / Enerdata. https://www.enerdata.net/publications/executive-briefing/carbon-price-forecast-under-eu-ets.pdf

18 Carbon Border Adjustment Mechanism: Factsheet. Combatting carbon leakage in the EU / Accountancy Europe. https://accountancyeurope.eu/publications/carbon-border-adjustment-mechanism-cbam/

19 Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism / Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0956

20 Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism / Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0956

3.2.2. Optimization of the agricultural trade regime

A particular point of tension in Ukraine's trade relations with its European partners is the partial curtailment of the policy of liberalizing access to the EU market for Ukrainian agricultural products, which was effectively implemented from the second half of 2022 to the first half of 2024. The introduction of autonomous preferences by the EU in 2022 undoubtedly provided tangible support to the domestic agricultural sector. In the context of war, this became a resuscitation tool that ensured the survival of Ukraine's agricultural sector in the first months of the large-scale invasion and gave impetus and hope for a gradual recovery. As of 2023, the agricultural sector remained one of the few pillars of macroeconomic stability in Ukraine.

However, a number of irrational fears about the danger of a total «takeover» of the European agricultural market by Ukrainian farmers led first to some countries blocking their borders to prevent imports of relevant products to the EU, unilateral bans on full or partial imports of agri-food products from Ukraine, and later to the European Commission's reservations when extending autonomous trade preferences for Ukraine in 2024, that effectively reintroduced restrictions on access to the European market for Ukrainian poultry, eggs, sugar, oats, cereals, natural honey, and corn (for more details, see Table 1.4; , subsection 1.2). Moreover, the situation may worsen in the future: although the new restrictions are not as severe as those that were in place under the Association Agreement, they expire in June 2025. It is assumed that the further trade regime and, accordingly, the conditions for access of Ukrainian agricultural products to the EU market should be the result of bilateral negotiations, which, however, will not begin until November 2024. If no clear agreements are reached by May 2025 on which trade regime will take effect from June 6, 2025, Ukrainian agri-food exporters risk getting much more limited access to the European market in the form of a return to the tariff quotas that were in place in 2021. For the Ukrainian economy and the agricultural sector in particular, this development is completely unacceptable and will lead to significant economic losses.

Therefore, the Ukrainian side should immediately formulate a clear and well-reasoned negotiating position that will justify the expediency of returning to the regime of liberalization of agricultural trade between Ukraine and the EU as optimal and mutually beneficial for both parties. To do this, it is necessary to emphasize a number of fundamental points that will debunk counterproductive narratives and help dispel the fears of European politicians, farmers, and the public about competition with Ukrainian producers.

First, Ukrainian agricultural products continue to be considered «cheap,» but this is a stereotype that has been lost since the outbreak of the war. In reality, many Ukrainian farmers are operating on the brink of survival due to a number of economic, structural and security challenges:

- Ukrainian farmers import most of their agricultural inputs (seeds, fertilizers, fuel, agricultural machinery and equipment) from the EU, which increases production costs, especially due to the devaluation of the hryvnia. Since the beginning of the war, Ukraine has imported $10 billion worth of material and technical resources (including pesticides, fertilizers, and machinery) for agriculture, excluding fuel. The share of EU countries in these supplies is about 60%;

- Since the start of the large-scale invasion, Ukrainian agricultural exporters have faced significant logistical challenges as they have been forced to use more costly alternatives due to the blocking and/or occupation of Ukrainian seaports. The high price of transportation led to a decline in profitability. The opening of the maritime export corridor in the second half of 2023 made it possible to partially reduce logistics costs for bulk commodities (grain, oilseeds, meals, etc.), while finished and packaged products are still exported through the EU Solidarity Roads and continue to lose on additional logistics costs;

- Ukrainian farmers continue to face shelling and power outages, which requires additional investment in alternative energy sources, which also increases production costs. Ukraine's agricultural infrastructure (warehouses and elevators) is under constant shelling by russian troops. Since the beginning of the large-scale invasion through September 2024, russia has attacked Ukrainian port facilities more than 50 times. Military risks have led to a severe discounting of Ukrainian products, while russian exports and their competitiveness have continued to grow, including in the EU market

Secondly, even with the rapid reorientation of Ukrainian agricultural producers to the EU market starting in 2022, the scale of Ukrainian agricultural products' presence in this market remains relatively small. With the exception of certain grains and oilseeds, as well as sunflower oil, which are in great demand, Ukraine's exports traditionally do not exceed 5% of the total capacity of the EU consumer market. This level of presence does not have the potential to have a significant or lasting impact on prices or on the European market (Table 3.3).

Table 3.3: Dynamics of the share of Ukrainian agricultural products in the consumption structure of the EU countries

Products.	% of consumption in 2022/23	% in consumption on average in 2018/19-2020/21
Wheat	6	1
Corn	20	12
Sunflower seeds	18	2
Rapeseed	10	10
Sugar	3	0
Poultry meat	2	1
Eggs	1	0
Sunflower oil	39	33
Rapeseed oil	1	1

Source: UCAB

It is important to underline that the resumption of exports through the Black Sea in 2023 has already reduced the burden on the EU's Solidarity Agenda; Ukrainian agricultural products are partially returning to traditional markets (Africa, Asia, the

Middle East, etc.). Therefore, the volume of its presence on the European market in 2022/23 should be considered a peak, which will objectively decrease in the future.

Thirdly, Ukrainian agricultural exports not only do not pose a threat to European farmers but, on the contrary, play a stabilizing role in the EU market, as it

- helps to reduce agricultural inflation: Ukrainian agricultural exports play a key role in stabilizing European food markets. For example, in 2023, the European Commission noted that Ukrainian products helped to contain agricultural inflation. This is especially important for European consumers, who gain access to more affordable food, reducing price pressure on the EU's domestic market;

- contributes to import diversification: Ukraine's agricultural sector provides the EU with a stable supply of goods, reducing dependence on third countries and contributing to diversification of supply sources. This makes the EU less vulnerable to external shocks and provides stability in times of uncertainty. At the same time, Ukraine could, for example, reduce the European market's dependence on soybean imports from Brazil and the United States, which currently account for more than 85% of the market. Soybeans are one of the few segments of the agricultural market where the EU is critically dependent on imports;

- ensures the EU's food security in years of poor harvests: For many years, including during extreme weather conditions and unpredictable crop failures in the EU, Ukraine has been a reliable supplier of agricultural products, helping to meet food demand. In times of crisis, Ukrainian exports have become a stabilizing factor for the European market, providing continuous and reliable access to food.

Fourthly, Ukrainian agricultural exports open up many opportunities for industrial development and prosperity of the EU economy, because:

- European companies, having access to Ukrainian raw materials, receive an impetus for the development of the local processing industry, providing European consumers with ready-to-eat food products at more favorable prices;

- Cooperation between the EU and Ukraine supports long supply chains, which contributes to the interdependence and resilience of the agri-food system. This means that imports of Ukrainian products benefit not only farmers, but also a wider range of European processors and consumers.

However, in order to achieve these positive effects, it is important to maintain stability and predictability in trade and economic relations between both sides. It is important for Ukrainian farmers to have access to stable and predictable conditions on the EU market. This ensures long-term cooperation, support for economic stability in the region, and joint development.

Fifth, in the medium term, the implementation of European standards for animal husbandry and the use of fertilizers and plant protection products in Ukraine will inevitably lead to an increase in production costs and a reduction in food production. In the field of livestock, this will be facilitated by legislation on animal health and welfare[21], in particular, Order of the Ministry of Economy No. 224 of February 08, 2021, which approves European requirements for the welfare of farm animals (broilers, laying hens, pigs and calves) during their keeping[22]. Requirements for lighting, ventilation and temperature control systems in animal housing, treatment, inspection and other aspects of animal care in agriculture have already been partially implemented. Further improvement of the conditions will lead to a certain increase in the cost of production of eggs and poultry, pork and beef in Ukraine. The requirements for stocking density and broiler housing have already been partially implemented by companies authorized to export to the EU. The introduction of such standards for all market operators, especially for producers focused on the local market, will inevitably lead to a decline in their economic activity. This is because it will increase production costs in such enterprises due to a reduction in the number of broilers or livestock.

The European Union has Regulation 1107/2009 on the circulation of plant protection products, which introduces a list of authorized active ingredients, defines their conditions of use, labeling and packaging; describes the procedures for registering new plant protection products. The Regulation guarantees safety for human, animal and environmental health. By restricting the use of certain active ingredients, it stimulates the production of new ones. In addition, it guarantees equal working conditions for all farmers in the EU. In this area, Ukrainian legislation is still catching up with EU standards, so a number of active ingredients that are already banned for use in EU crop production are still allowed in Ukraine. Such substances are cheaper, which means that production costs for domestic farmers are lower. Accordingly, the prospect of not using these substances will mean an increase in the cost of grains and oilseeds grown in Ukraine, which will further weaken the competitive pressure of domestic food on the EU market. At the same time, the introduction of such measures in the context of the war in Ukraine could have significant consequences for macro-financial stability and the Ukrainian economy as a whole, as it would significantly affect the volume of domestic agricultural exports.

Box 2 contains a practical case study that illustrates the above arguments on the example of Ukrainian poultry exports to the EU.



21 Під благополуччям тварин розуміються умови утримання тварин, включаючи систематичний догляд, належне годування, належні приміщення для утримання тварин, запобігання хворобам і гуманне поводження з тваринами, у тому числі під час забою.

22 https://zakon.rada.gov.ua/laws/show/z0206-21#Text Наказ має бути введений в дію 1 січня 2026 року.

Box 2. Poultry meat

Against the backdrop of the EU's abolition of tariff quotas on Ukrainian poultry meat and the departure to Europe of a large part of the Ukrainian population fleeing the war, domestic poultry exports to the EU increased from 75.0 thousand tons in 2021 to 117.0 thousand tons in 2222 and 23. At the same time, Ukraine's share in poultry imports to the EU increased from the pre-war 13-15% to 26%, and the share of Ukrainian products in the structure of poultry consumption in the EU increased from 0.8% to 1.9%. At the same time, in terms of slaughter weight of carcasses, poultry consumption in the EU in 2023 increased by 580 thousand tons compared to 2022, while imports from Ukraine increased by only 88 thousand tons.

It should be noted that about 4.2 million Ukrainians are registered in the EU as recipients of temporary protection. Their consumption of poultry is estimated at about 102.5 thousand tons per year, while the increase in imports of this product to the EU from Ukraine in 2023 amounted to 143 thousand tons compared to 2021. Thus, most of the increase in Ukrainian poultry exports to the EU since 2022 has covered the demand of those Ukrainians who temporarily left their homeland due to the war. Moreover, it was Ukrainian poultry supplies, although relatively insignificant against the background of total EU consumption, that helped stabilize prices on the European market for this product, which had been rapidly spiraling out of control in the EU due to growing refugee demand and difficulties in the agricultural sector caused by upheavals in global supply chains. For example, the average price per quintal of broiler chicken carcasses in the EU increased from 197 euros at the end of 2021 to 281 euros as of May 2023 (by 42.6%). Obviously, without additional supply from Ukrainian producers, the price increase would have been even more significant and would not have been stabilized for a long time.

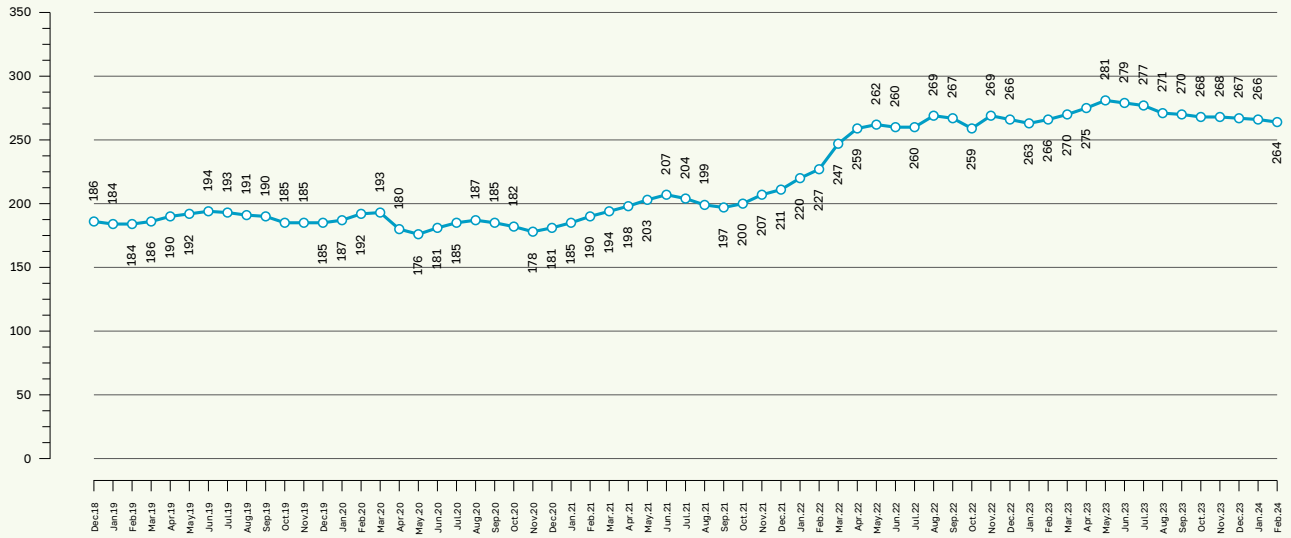
However, despite all the positive effects and objective reasons for increasing the presence of Ukrainian poultry producers in the EU market, the European Commission, under pressure from individual member states' governments and business associations, eventually decided to impose limits on the import of relevant products from Ukraine. For the period 06.06.2024-05.06.2025, the limit for Ukrainian poultry meat amounted to 134.6 thousand tons of net weight, which is 37.2 thousand tons (21.4%) less than in 2023.

This decision primarily affected the EU market. In the first half of 2024, imports of poultry meat to the EU from Ukraine decreased by 14.6% compared to the same period of the previous year - from 92.1 thousand to 78.7 thousand tons, while the total volume of imports of this product remained almost unchanged (in January-June 2024, imports amounted to 193.4 thousand tons, which is only 1.1% less than in January-June 2023). According to Eurostat, the restriction of poultry imports from Ukraine to the EU replaced the increase in supplies from the UK from 59.4 thousand tons in the first half of 2023 to 77.9 thousand tons in the first half of 2024.

At the same time, poultry exports from Ukraine have intensified to traditional markets due to the resumption of sea transportation and increased by 6.0% in the first half of 2024 compared to January-June of the previous year, from 213.0 thousand to 225.7 thousand tons.

It should also be noted that in the medium term, after the introduction of European regulations on animal health and welfare in Ukraine, the density of broilers will not be allowed to exceed 33 kg/m2. Although these requirements have already been partially implemented by Ukrainian farmers, their further implementation will lead to an increase in production costs on such farms due to a reduction in the number of broilers or livestock. Therefore, a «total takeover» of the European poultry market by Ukrainian producers will definitely not happen, and it is advisable for the European Union to abandon the policy of restrictions on poultry imports from Ukraine for reasons of strategic autonomy and stabilization of the internal market.

Average price of broiler chicken carcasses in the EU, EUR/100 kg



3.2.3. Removing technical barriers to access to the EU market

The survey of producers conducted as part of this study (see Section 2) showed that Ukrainian businesses are overwhelmingly concerned about the excessively burdensome and costly certification procedures for gaining access to the EU market. It is important to emphasize that it is a matter of significant time and money spent on complex and overly bureaucratic certification procedures, not an inability to meet European quality standards. Ukrainian producers have long mastered advanced technologies and business processes that ensure production in accordance with the highest European and global quality standards.

The problem of certification remains urgent for a wide range of domestic industries, from beverage and food production (wine, ethyl alcohol, bread, bakery and confectionery) to chemical industry (production of medicines, household chemicals, cosmetics, rubber products) and machine building (commercial equipment, machine tools, agricultural machinery, buses, transformers, elevators, etc.). For these and a number of other industries, any further steps to harmonize regulatory practices and integrate Ukraine's economy into the EU will have no practical value without addressing the problem of technical barriers to trade (TBT).

Indeed, various requirements for assessing the quality and safety of goods, verifying and confirming their compliance with technical regulations, accreditation and approval procedures have become the main instrument for regulating international trade, creating the greatest obstacles to access to foreign markets. According to the United Nations Conference on Trade and Development (UNCTAD), TBTs are the most restrictive measures in world trade compared to other non-tariff instruments, not to mention import duties, which, as a result of the WTO and the proliferation of bilateral free trade agreements, have largely lost their function as a regulator of international trade flows. TBTs restrict about two-thirds of global trade in manufactured goods, with coverage ranging from 37.6% of paper trade to 89.2% of trade in fats and oils of animal and vegetable origin (Fig. 3.7).

For such developed and complex economic systems as the EU, technical barriers to trade are even more important. According to available estimates, the impact of TBT on the increase in the final value of Ukrainian exports to the EU is on average equivalent to an additional 36.0% duty. For chemical products, including pharmaceuticals, this figure is 32.9%, and for a number of other industries it is even higher. Thus, for instrumentation, it reaches 48.3%, for finished food products - 50.1%, for polymeric materials, rubber, plastic and products made of them - 58.0%, for machines, mechanisms, equipment and electrical equipment - 59.2%[23]. For comparison, the arithmetic average EU import duty rate on Ukrainian goods before the signing of the Deep and Comprehensive Free Trade Agreement (DCFTA) was 7.6%, and only 3.9% for industrial goods[24].

Mutual recognition agreements between certification and conformity assessment bodies located in the territory of partner countries are a tool for eliminating the above technical barriers. In essence, such agreements allow an exporting jurisdiction to appoint its own conformity assessment bodies capable of inspecting and certifying exported products in accordance with the regulatory requirements applicable to the market of the importing country. This helps to significantly reduce certification costs, as manufacturers use the same bodies to inspect goods intended for both domestic and export markets. At the same time, the time and money spent on delivering products to laboratories in the country of export to undergo the necessary inspections and tests is eliminated.

Consequently, through conformity assessment agreements, exporters save time and money on testing and certification by relying on conformity assessment bodies in their home markets. The positive effects of concluding such agreements also include:

- reduction of fixed costs for conformity assessment procedures, as the same conformity assessment bodies can be used for several markets at once (domestic market of Ukraine, markets of all 27 EU member states);
- Reduction of marginal costs of conformity assessment for companies exporting a wide range of products to different foreign markets. Having a single testing laboratory that tests the entire product portfolio reduces the cost of conformity assessment for each individual product category;
- Increased competition in the field of conformity assessment, allowing exporters to choose from a wider range of laboratories, thus reducing the cost of relevant procedures;
- promoting the diversification of international value chains as a result of a wider choice of suppliers, which for the EU means increased open strategic autonomy in the event of such an agreement with Ukraine.

Existing empirical studies show that the potential trade gains from TBT elimination through mutual recognition agreements reach 15-40% of the growth in industrial exports, and the probability of new firms entering foreign markets with new products increases by more than 50%[25].

These effects exceed all existing and potential results that could be obtained as a result of tariff liberalization under traditional free trade agreements. Not surprisingly, a «quiet revolution» is gaining momentum in the world to conclude similar mini-agreements, which are approved at the government level without public disclosure, but affect international trade and the configuration of global value chains much more than FTAs, which

23 Таран С. та ін. Аналіз торгівлі товарами між Україною та ЄС в рамках ПВЗВТ: поточний стан та перспективи лібералізації / KSE Institute. https://kse.ua/wp-content/uploads/2022/05/DCFTA-Commodities-2022-16-05.pdf

24 Іванов Є.І. Перші підсумки дії угоди про поглиблену та всеосяжну зону вільної торгівлі між Україною та ЄС / Проблеми системного підходу в економіці. 2017. Випуск 2, С. 19.Режим доступу: http://www.psae-jrnl.nau.in.ua/journal/2_58_2017_ukr/3.pdf

25 Cernat L. How Important are Mutual Recognition Agreements for Trade Facilitation / ECIPE. https://ecipe.org/wp-content/uploads/2022/12/ECI_22_PolicyBrief_RegCo_10_2022_LY04.pdf

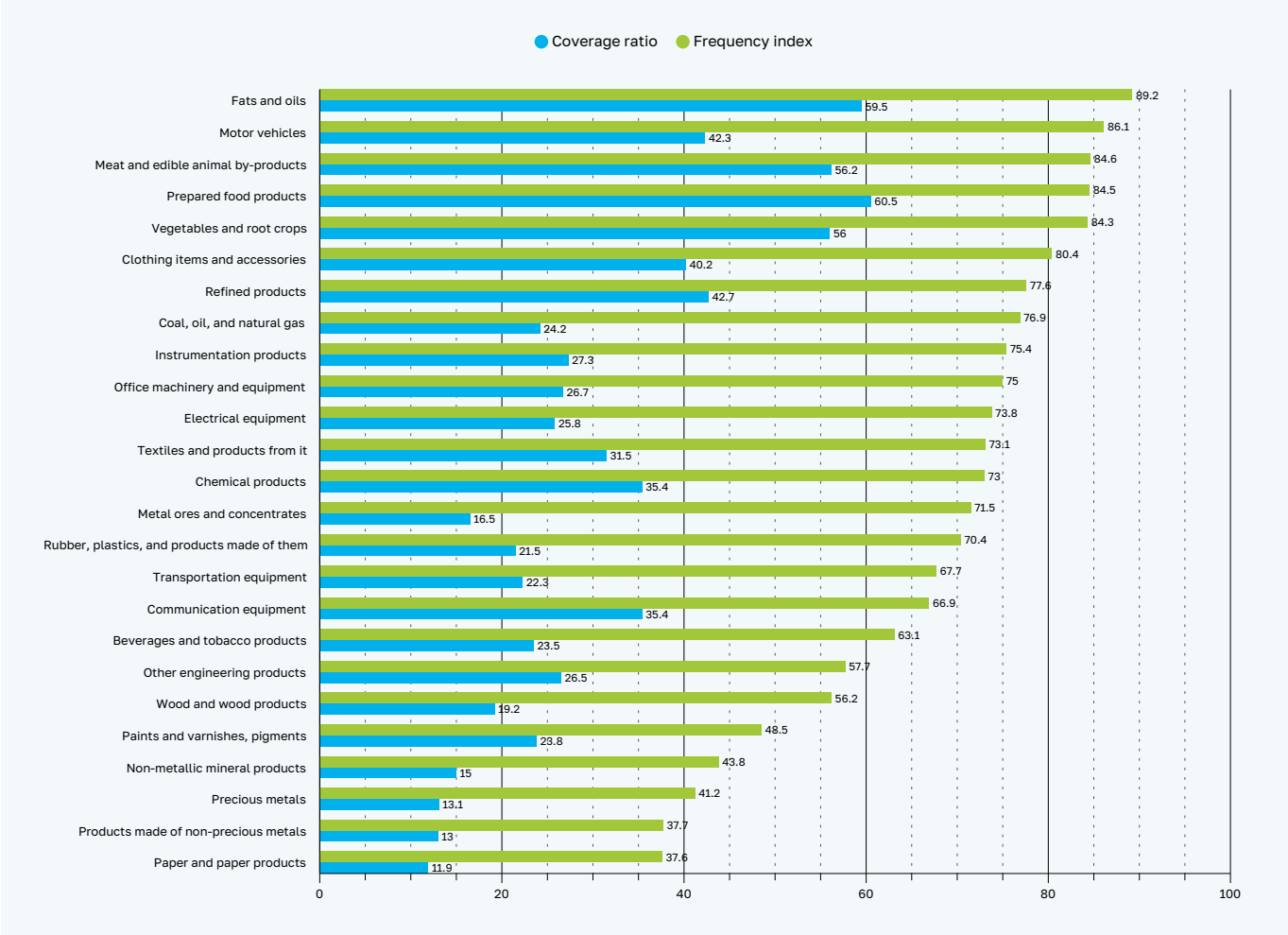


Fig. 3.7. Scale of use of technical barriers in world trade by major product groups in 2023

Note:

1. Coverage ratio is the share of world exports subject to TBT; frequency index is the share of tariff lines subject to TBT.

Source: Key Statistics and Trends in Trade Policy 2023: The importance of unilateral trade preferences / Division on International Trade and Commodities (DITC), UNCTAD secretariat. P. 18.
https://unctad.org/system/files/official-document/ditctab2024d2_en.pdf

often require parliamentary approval and tend to attract more public attention[26].

In the case of Ukraine's relations with the EU, such an agreement is the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA), also known as the «Industrial Visa Waiver». On the one hand, Ukraine has already taken a number of steps to adopt basic laws, technical regulations based on EU legislation, European standards, and institutional reforms on the way to concluding the ACAA. In particular, in 2022-2023:

- Ukraine gained the status of associate correspondent member in the European Association of National Metrology Institutions (EURAMET) and affiliate member of the European Committee for Standardization and the European Committee for Standardization in Electrical Engineering (CEN/CENELEC);

- The European National Standardization Body of Ukraine, whose functions are performed by UkrNDNC, issued Order No. 285 dated 28.12.2022 «On the Package Adoption of European Regulatory Documents», which adopted 20268 European CEN/CENELEC regulatory documents as national ones starting from 31.12.2023;

- Within the framework of Phase II of the previous EU assessment mission, the EU mission on the readiness of Ukraine's quality infrastructure for the conclusion of the ACAA Agreement continued its work, assessing the metrology, accreditation and conformity assessment system;

- During the plenary session of the Sixth Session of the EU-Ukraine High-Level Dialogue on Horizontal Issues and Selected Sectors, the Ukrainian side outlined the status of implementation of the recommendations of EU experts[27].

But on the other hand, the process of concluding the ACAA has been significantly delayed compared to the initial plans to ensure preparation for its conclusion within 2-5 years from the date of

26 Rumours of the trade deal's death are greatly exaggerated / The Economist.
https://www.economist.com/finance-and-economics/2024/06/13/rumours-of-the-trade-deals-death-are-greatly-exaggerated

27 Priorities for the Development of the Real Sector in the Context of War and Post-War Economic Recovery of Ukraine: Analytical Report / [O. Sobkevych, A. Shevchenko, V. Rusan, et al.

entry into force of the Association Agreement, as provided for in Annex III to this agreement[28]. Moreover, at present, we are talking only about the initial stage of implementation of the ACAA agreement, within which technical barriers will be removed only in three of the 27 sections (industries) of industry provided for in the agreement - machinery, electromagnetic compatibility, low voltage equipment (Table 3.3).

The three categories of goods to be covered by the first phase of the ACAA agreement account for about 5% of Ukraine's exports to the EU. These are groups of goods such as sets of ignition wires, panels and boards for controlling and distributing electrical voltage, washing machines, and lamps. At the same time, in the structure of imports to Ukraine from the EU, the relevant categories of goods reach 20%. The structure of these imports is dominated by electric wind turbines, construction equipment, combine harvesters, television equipment, medical equipment, etc[30]. Thus, such a fragmented approach to the implementation of the ACAA agreement shows a lack of parity in the extent to which the parties actually remove technical barriers in favor of European producers.

In view of the above, Ukraine needs to push the EU to intensify the process of concluding the ACAA agreement as soon as possible in all the agreed sectoral areas. For Ukraine, this will be a real step toward liberalizing access for industrial goods to the EU market. At the same time, for the EU itself, this will be the largest agreement on mutual recognition of conformity assessment bodies (the EU currently has seven such agreements - with Switzerland, Canada, the United States, Australia, New Zealand, Japan, and Israel - covering 2 to 20 industrial sectors) and an additional factor in strengthening strategic autonomy through more favorable conditions for the development of industrial cooperation with Ukraine.

If the timeframe for concluding the ACAA remains unclear and distant, it is advisable for Ukraine to insist on the use of temporary, interim solutions to ease the burden of technical barriers for domestic exporters to the EU. In particular, it seems promising to extend the Standard Operating Procedure for the inclusion of market operator's facilities in the list of food exporters to the EU member states (SOP-export to the EU) to related industries. This procedure involves inspecting a company's production facilities for compliance with European standards. If the production facilities are successfully certified, the products manufactured on this equipment are recognized as meeting European standards and can subsequently be exported to EU countries without undergoing conformity assessment procedures (provided that the products are registered in the EU). The approval applies to all production facilities without restrictions on the number of lines/workshops or the range of products manufactured. The application of the SOP-Export to the EU as a temporary mechanism until the ACAA agreement comes into effect should primarily focus on the pharmaceutical industry, which faces some of the highest costs related to conformity assessment when exporting to the EU.

Table 3.4. Sectoral coverage of the ACAA agreement (Annex III of the Association Agreement)

1	Machines
2	Electromagnetic compatibility
3	Simple high pressure vessels
4	Equipment operating under pressure
5	Mobile equipment operating under pressure
6	Elevators
7	Toy safety
8	Low voltage equipment
9	Requirements for the efficiency of water heating boilers
10	Appliances that run on gaseous fuel
11	Personal protective equipment
12	Technical requirements for energy consumption of household refrigerators and freezers
13	Non-automatic weighing devices
14	Weighing instruments
15	Ship equipment
16	Medical devices
17	Active implantable medical devices
18	About in vitro diagnostic medical devices
19	Equipment and protection systems designed for use in explosive atmospheres
20	Radio and telecommunication terminal equipment
21	Rope installations for the transportation of people
22	Recreational vessels
23	Construction products
24	Packaging and waste
25	Civilian explosives
26	Energy consumption labeling
27	High-speed railways

Source: EU-Ukraine Association Agreement [29]

Finally, it is important to note that even after the ACAA agreement comes into effect, most domestic industries will require significant expenditures on the construction and modernization of Ukrainian laboratories for conformity assessment. Therefore, efforts to identify funding sources among EU funds, international organizations (such as the EBRD), and donors should begin without delay.

28 In accordance with Article 486 of the Agreement, from November 1, 2014, it was temporarily applied until its entry into force. On September 1, 2017, following the ratification process, the EU-Ukraine Association Agreement entered into full force and effect.

29 Association Agreement: Annex III «List of Legislation to be Adapted with Deadlines for its Implementation

30 Movchan V. et al. The forthcoming ACAA between the EU and Ukraine: What to expect / German Economic Team & Institute for Economic Research and Policy Consulting. https://www.german-economic-team.com/wp-content/uploads/2021/11/GET_UKR_PS_02_2021.pdf

3.3. Development of state support instruments for production and exports in Ukraine

Recently, Ukraine has made significant progress in developing state policies aimed at supporting its domestic processing industry. Programs such as partial compensation for the cost of domestically produced agricultural machinery and equipment, the launch and expansion of the «Affordable Loans 5-7-9%» and «Grants for the Creation or Development of Processing Enterprises» initiatives, the effective launch of the Export Credit Agency (at least its functions related to insuring export contracts), granting the agency the function of insuring direct investments and investors' dividends against military and political risks, improving the organizational and economic mechanisms, and providing real tax and fiscal incentives for investment in industrial activities within industrial parks and significant investment projects have made a notable impact. Additionally, the introduction of localization requirements in public procurement for certain machinery products and the implementation of other budgetary development programs have positively influenced the investment attractiveness and dynamics of domestic production. These measures have helped many enterprises survive and grow under the challenging conditions of martial law.

However, Ukraine's prospect of European integration presents a number of challenges that require the improvement and further development of state policies to enhance industrial and export potential. One such challenge is the gradual adaptation and harmonization of principles and modern approaches to state economic support with those already established or currently forming within the EU, in response to new geopolitical realities.

It is equally important to design and implement a set of measures that will allow domestic producers to adequately prepare for entry into the highly competitive EU single market, considering the devastating impact of the war on the Ukrainian economy as a whole. This places a complex task before Ukraine's political leadership: the development of a comprehensive industrial policy that effectively integrates and aligns various investment incentives, tax benefits, external trade regulation tools, trade diplomacy, measures to facilitate access to financial resources, and the development of education and technical training for specialists. At the same time, it must ensure the optimization and reduction of bureaucratic regulatory burdens across all areas of state intervention in the national economy.

A positive aspect of Ukraine's European integration ambitions in this context is the opportunity to access significant funding for numerous development projects from European funds and support programs.

The results of a survey of domestic producers and business associations, along with a detailed analysis of European and global experiences in using advanced economic development tools, combined with an evaluation of the effectiveness and challenges of practical implementation of existing state support mechanisms for economic entities, have enabled the formulation of a comprehensive approach to economic policy focused on developing Ukraine's production and export potential (Fig. 3.8).

Industrial parks

Among all the economic development tools currently implemented in Ukraine, industrial parks (IPs) stand out as the most dynamically utilized in practice. As of early October 2024, 93 industrial parks were registered in Ukraine, with 46 of them established after the onset of the large-scale invasion. According to official reports from industrial parks, the total number of jobs created in IPs amounts to 2,600. Over 24.3 billion UAH has been spent on developing the engineering and transportation infrastructure of these parks. Capital investments in manufacturing industries within IPs total approximately 6.1 billion UAH, while investments in other types of economic activities amount to 157.7 million UAH. The majority of parks benefit from exemptions from land taxes and lease payments or receive preferential rates during the establishment phase. Several IP participants have already exercised the right to import foreign equipment without paying customs duties or VAT.

The key impetus for the expansion of the IP network in Ukraine was the adoption of Law No. 2330-IX, "On Amendments to the Tax Code of Ukraine to Create Favorable Conditions for Industrial Parks in Ukraine," on June 21, 2022. This law introduced tangible support mechanisms for investors in manufacturing within the territories of IPs. However, a significant limiting factor in fully realizing the potential of IPs remains the relatively modest amount of state funding. For instance, a single IP in Ukraine can receive no more than 150 million UAH in co-financing from the state budget for building engineering and transportation infrastructure or for compensating network connection costs. The total amount allocated in the 2024 state budget for all types of IP incentives, including infrastructure development and tax benefits, is only 1 billion UAH. Moreover, there are no guarantees that such expenditures to support IPs will be consistently included in future budgets.

Under such circumstances, it becomes essential to attract funds from foreign sources and donors to stimulate economic activity within industrial parks (IPs). In the context of European integration, the European Regional Development Fund (ERDF) can serve as a relevant source, as it is specifically designed to finance investment projects in regions with low levels of prosperity, aiming to address regional disparities within EU member states.

According to a joint study by Ukraine's leading scientific institutions titled «Processing Industry: Employment, Economic Growth, and a Capable State»[31], comprehensive reindustrialization in Ukraine will require the construction of 570 new processing plants, with an estimated total investment of approximately $90 billion USD. This effort is projected to increase the share of the processing industry in Ukraine's GDP from 9.1% in 2023 to 20–25% over the next 10–12 years, aligning with typical levels observed in industrialized OECD countries.

Industrial parks are expected to serve as an optimal instrument for achieving this goal, offering a framework for prioritizing industrial development and effectively attracting funds from European partners, particularly through the ERDF.

31 https://komprompol.rada.gov.ua/uploads/documents/31367.pdf

Stimulating investment and development of processing industry

Industrial parks

«Investment nannies»

- non-refundable financing for the arrangement of engineering and transport communications
- temporary exemption from income tax
- exemption from import VAT and import duties on the purchase of foreign equipment
- Possibility of exemption from land tax and land rent

Development Bank

- long-term financing of investments in strategic industries and implementation of large-scale infrastructure projects
- preferential lending for investments in the modernization of heavy industry

Entrepreneurship Development Fund

State program «Affordable loans 5-7-9%»

Concessional loans of up to UAH 150 million for individual entrepreneurs and SMEs

State program «Affordable financial leasing 5-7-9»

Support for MSMEs under financial leasing agreements

Grants up to UAH 8 million

to MSMEs for the establishment or development of processing production

Insurance of direct investments and investor's dividends against military and political risks

State program of partial (up to 25%) compensation for the cost of agricultural machinery and equipment of domestic production

Criteria: 8% share of labor costs in production costs; availability of certificates of compliance with the quality management system and technical regulations; degree of localization of production.

State program of partial (up to 25%) compensation for the cost of machine building products

Criteria: similar to those for manufacturers of agricultural machinery and equipment of domestic production.

Compensation for capital investments through taxes

In accordance with the EU principles and rules on regional state aid, provide tax benefits to entities implementing investment projects in the industrial sector:

- VAT exemption on imports of equipment for up to 3 years;
- exemption from income tax for up to 10 years from the start of the investment project;
- partial/full exemption from land tax and land rent by decision of local authorities.

Maximum amount of benefits: 70% of the CI for investments from €100 thousand to €1.0 million; 50% of the CI for investments from €1-20 million; 30% of the CI for investments from €20-50 million.

Trade policy and export expansion

Intensify the work of **the Interdepartmental Commission on International Trade** in order to promptly respond to and protect domestic producers from increasingly widespread unfair competition practices (export subsidies, dumping) by the largest global market participants.

Establishment of new checkpoints for customs and other types of control on the borders with the EU countries to speed up international supply chains and overcome logistical difficulties due to the massive reorientation of Ukrainian producers to the European market.

Optimize the structure of import duties to set lower rates of duty on intermediate goods and inputs and higher duties on final products.

Strengthening trade diplomacy:

- establishing a network of trade missions at Ukrainian embassies abroad
- Launching a state program to provide systematic financial support for the participation of Ukrainian producers in the most prestigious international trade fairs
- development and implementation of a state marketing strategy to popularize the Made in Ukraine brand for various industries

Export Credit Agency

- insurance of foreign economic agreements (contracts)
- insurance of bank guarantees/counter-guarantees
- export credit insurance

Loan parameters: maximum amount up to UAH 20 million; loan term up to 1 year; interest rate according to the bank's terms and conditions (it is possible to combine with «Available loans 5-7-9%»); mandatory availability of an export contract.

Localization in public procurement

- expanding the list of goods in the processing industry subject to localization requirements
- improving legislation to prevent the practice of ignoring localization requirements in public procurement

Greening public procurement

Preferring in public procurement domestic products that meet the criteria of sustainability, environmental friendliness and decarbonization of the economy.

Human capital development

Development of the educational system in the field of training and retraining, professional development, and vocational education to urgently overcome the acute shortage of personnel in the machine-building sector that arose as a result of millions of Ukrainian citizens fleeing the war.

Fig. 3.8. Components of the state's economic policy on the development of Ukraine's production and export potential in the context of European integration

Compensation for capital investments through taxes

While industrial parks (IPs) offer a promising mechanism for attracting investments to establish new production facilities and address regional development disparities, Ukraine must also adopt broader and more generalized practices to stimulate investment in the modernization, scaling, and expansion of existing production facilities. Importantly, such practices should align with the rules and principles of state aid applied in the EU. In this context, implementing a program of capital investment compensation through tax incentives in Ukraine seems appropriate.

Modern investment policies in EU member states are guided by the European Commission's Guidelines on Regional State Aid, issued on April 29, 2021. These guidelines allow for state aid in the form of compensating a portion of investors' capital expenditures through various mechanisms, including:

- Preferential interest rates on loans,
- Debt write-offs,
- Repayable advances,
- Refundable grants (state loans linked to the success of investment projects),
- State guarantees,
- Tax exemptions or reductions,
- Risk financing, and others.
- For a single investment project, multiple forms of support can be combined.

State aid is applicable to investments in tangible assets (e.g., facilities and equipment) and intangible assets (e.g., patents and licenses) if they are directly used in the production process. It also includes wage costs associated with job creation, calculated over a two-year period. Eligible costs may further encompass land lease expenses and the leasing of production equipment, provided the equipment becomes the property of the investor upon completing all lease payments.

The maximum level of state support depends on the size of the enterprise, the level of development, and the geographic remoteness of the region where the investment project is implemented. This support can range from 10% to 70% of the total capital investment.

In Ukraine, the program of capital investment compensation through taxes is intended to introduce elements and approaches of the European model. It is planned to create a Register of Investors implementing investment projects in the processing industry, granting them the right to the following benefits:

- Exemption from VAT when importing (bringing in) equipment for a period of up to three years;
- Exemption from corporate income tax for a period of up to ten years from the start of the investment project;
- Partial or full exemption from land tax and land lease payments by decision of local self-government bodies.

The maximum total amount of benefits an investor can receive will be limited to the following amounts:

- 70% of investments (expenses) for investments ranging from €100,000 to €1 million;
- 50% of investments (expenses) for investments ranging from €1 million to €20 million;
- 30% of investments (expenses) for investments ranging from €20 million to €50 million.

Partial compensation programs for machinery and equipment

Since 2017, one of the most successful state support mechanisms has been operating in Ukraine - the program of partial compensation of the cost of agricultural machinery and equipment of domestic production», approved by the Cabinet of Ministers of Ukraine by Resolution No. 130 of 01.03.2017. The essence of the program is to compensate farms and other agricultural producers for up to 25% of the cost of agricultural machinery with a degree of localization of production in Ukraine of at least 60% for simple equipment and 35-55% for complex self-propelled machinery. Currently, there are two phases of the program: the pre-war phase (2017-2021) and the second phase (starting in 2024), when the government resumed the practice of compensating farmers for part of the cost of agricultural machinery and equipment, which was interrupted by the large-scale invasion, and slightly improved the mechanism for using the funds provided for compensation to farmers, taking into account the new business circumstances. Among other things, localization requirements were simplified to attract a wider range of agricultural machinery manufacturers to the program.

At the first stage, the program was highly effective. During 2017-2021, the number of domestic producers of agricultural machinery and equipment participating in its implementation increased from 40 to 203 companies, and the range of products subject to compensation increased from 792 to 16,800 items. While in 2016-2017, domestic products accounted for 15.2-16.8% of the domestic market of agricultural machinery and equipment, in 2020-2021, they accounted for 32.0-33.0%. In 2021, the volume of agricultural machinery and equipment purchased with partial cost compensation amounted to 25.1 thousand units totaling UAH 5.8 billion. About 10 thousand Ukrainian farms took advantage of the program.

According to the Ministry of Economy of Ukraine, since April 2024, 1.1 thousand farmers have already participated in the

updated program, purchasing more than 1.5 thousand units of agricultural machinery worth UAH 1.2 billion with compensation. It is expected that the renewal of the program will help to replace up to 10% of imports of agricultural machinery with domestic counterparts by the end of 2024.

At the same time, a number of machine-building companies continue to operate in Ukraine, producing high-quality machinery and equipment for the needs of industries other than agriculture, but they are also in an extremely difficult situation caused by the destruction of the economy in the wake of the war. On the other hand, enterprises in need of such machinery and equipment may find it difficult to generate solvent demand due to the crisis in the national economy. Thus, it seems appropriate to introduce a similar mechanism of partial compensation for the cost of machinery and equipment, only for the needs of processing industries and end users of machinery products that are not farmers or agrarians. Compensation in the amount of up to 20% of the cost of machinery and equipment (excluding VAT) should be provided to industrial producers and consumers of private and collective ownership when purchasing a wide range of machine-building products - from public transport and special equipment to power equipment, elevators and traffic lights.

Development Bank

Development banks provide financial and other services and resources to support and implement priority investment projects (the so-called growth drivers) in certain market segments. This ensures the implementation of national interests and tasks of financing the country's socio-economic development to stabilize and modernize the country's economic system, focus national priorities, stimulate investment, foreign economic, insurance and advisory activities, and direct accumulated investment funds to priority areas of the national economy in order to increase the competitiveness of the state and its entities in the international economic space.

The activities of development banks are indispensable when it comes to eliminating «market failures» and solving a number of other problems: overcoming inertia in the innovation sphere; eliminating institutional shortcomings; developing strategic economic and social infrastructure; eliminating development imbalances in regional development, etc. In today's economic realities, the urgent need for a domestic development bank is also driven by the need to rebuild and restore Ukraine's economy, which has suffered significant damage as a result of a large-scale invasion.

Development banks have a number of fundamental features. First, their main task is not to make money and generate profit, but to contribute to the socio-economic development of the country and the implementation of the state strategy. Second, they have a clear focus on certain sectors and types of investment projects, which is dictated by economic policy and the need to avoid competition with commercial financial institutions. Thirdly, development banks provide services and financing on «non-market» terms, which makes it possible to implement strategically important projects that would not have had a chance in a purely commercial approach. Fifth, these development institutions are a mechanism for implementing government economic policy and are therefore usually regulated by special legislation, not subject to standard banking regulations and traditional financial market rules.

In Ukraine, the interaction between the financial and real sectors of the economy faces significant obstacles. Therefore, there is an objective need to create Ukraine's own bank for reconstruction and development, which will provide long-term concessional financing and consulting support for strategically important infrastructure, industrial and innovation projects.

Trade representative offices

Global practice proves the effectiveness of trade representative offices as a mechanism for protecting the interests of manufacturers in global markets, promoting national exports, and facilitating the attraction of investments into high-productivity sectors of the economy. Ukraine has had a mixed experience with the functioning of a system of trade representations in the form of trade and economic missions (TEMs) during 1994–2010. As a result of the administrative reform of April 8, 2010 (Presidential Decree No. 522), this system was liquidated. Instead of TEMs, departments for economic affairs (DEAs) were established within foreign diplomatic missions. Consequently, the Ministry of Economy was deprived of an instrument for implementing foreign economic policy, and domestic producers lost significant support in foreign markets from specialized state officials.

This led to the loss of practical assistance for domestic producers in a number of issues, including the return of foreign exchange earnings to Ukraine for exported goods, assistance in conducting anti-dumping, anti-subsidy, and special investigations and resolving trade disputes, marketing and methodological support for national producers in global markets (in particular, assistance with participation in international exhibitions and fairs, establishing business connections, etc.), promoting domestic goods and services in foreign markets, attracting foreign investments, and much more.

In this regard, it appears expedient to improve the domestic system for protecting the rights and legitimate interests of Ukraine's foreign economic activity (FEA) entities abroad (primarily in EU countries) in accordance with international law by establishing a network of trade representative offices with dual subordination:

- Trade representative offices will be part of Ukraine's foreign diplomatic missions and accountable to the heads of these missions under the Ministry of Foreign Affairs.
- The organization of work and staffing of trade representations will be assigned to the Ministry of Economy, which forms and implements state policy in the field of economic development.

At the same time, it is advisable to define the following functions for trade representations:

- Protecting the rights and legitimate interests of Ukraine in the foreign economic field and those of Ukrainian business entities in the host country.

- Promoting the development of Ukraine's trade and economic relations, advancing exports of goods and services originating from Ukraine, attracting foreign investments into priority sectors of Ukraine's economy, and facilitating the implementation of international agreements between Ukraine and the host country.

- Identifying and preventing facts or threats of anti-dumping, countervailing, and special protective measures being applied to goods originating from Ukraine by foreign authorities, customs unions, or other economic blocs.

- Ensuring prompt intergovernmental interaction within the framework of anti-dumping, counter-subsidy, special investigations, and investigations concerning discriminatory and/or unfriendly actions by other states, customs unions, or economic groupings against the lawful rights and interests of Ukraine's FEA entities.

- Informing the Ministry of Economy about regulatory, pricing, tax, tariff, and non-tariff policies pursued by the host state regarding goods originating from Ukraine.

- Preparing conclusions on the feasibility of exporting or importing goods and services and developing proposals for new forms of cooperation with foreign states to increase the volume of exports of goods and services originating from Ukraine.

Localization in public procurement

The introduction of localization requirements in public procurement has become a significant step toward utilizing state demand as a tool for attracting investments and fostering innovations to stimulate employment and ensure the technological capability of domestic industry. In this context, Ukraine has begun successfully adapting the public procurement practices of highly developed countries, which consistently implement state policy measures aimed at prioritizing national companies and restricting foreign competitors in public tenders to use taxpayers' money primarily for domestic economic growth and improving the well-being of their citizens.

The results of post-legislative oversight in the field of compliance with the requirements for local content (localization) in public procurement, conducted by the Verkhovna Rada Committee on Economic Development in 2024, demonstrated that this mechanism has produced positive socio-economic effects during its period of operation. These include increased domestic production to meet public sector demand, the creation of new jobs, and the development of private business plans for further modernization and scaling of production, despite the challenges of wartime[32].

At the same time, shortcomings in the practical implementation of legislative and regulatory requirements were identified, which reduce the effectiveness of applying localization. The key ones are:

- an imperfect methodology for calculating the share of the local component in the final price of products, which makes it possible to unreasonably overestimate the level of localization at the expense of logistics, marketing, administrative and other non-production costs and thus pass off foreign products as localized;

- poor quality of administration of the List of goods with a confirmed degree of localization of production, which may result in the inclusion of business entities that are not producers of localized goods;

- the lack of clear and comprehensive requirements in the legislation regarding the mandatory indication of proof of localization in the tender documentation, which makes it impossible for regulatory authorities to provide a legal assessment in case of violation of localization criteria in many public procurements.

According to CMD-Ukraine's public monitoring of public procurement of localized goods, in August 2023 - April 2024, more than 2,000 tenders were announced, completed and executed in violation of the localization legislation in Ukraine or 39.7% of the total number of public procurements involving goods subject to localization requirements. 83% of violations relate to procedural aspects (no requirements for technical documentation from the procuring entity, no actual calculation of the local component, etc.), even though the procurement object was a localized product. The remaining 17% cover procurements of foreign products without complying with localization requirements, where this is directly provided for by law[33].

Post-legislative control has revealed a significant request from domestic producers to expand the scope of localization procurement. Currently, localization covers power engineering products, engines, pumps and compressors, locomotives, railway and public transport vehicles, aircraft, trailers and semi-trailers, mining and construction equipment, etc. However, there are all the prerequisites and potential for applying localization in the procurement of elevators, diesel pumping stations, backhoe loaders, metal products (ladders, stepladders, scaffolding), electrical cables, wires and cords, fiber optic and radio frequency cables, light industry products, and a number of defense procurements.

In view of the above, it is necessary to immediately eliminate the shortcomings in the legislation and strengthen control over compliance with localization, which will help to increase confidence in this mechanism and achieve the goals of intensifying the socio-economic development of Ukraine, as well as initiate an expansion of the list of goods subject to localization requirements in order to enhance the positive effects of their application.

It is also important to develop the global trend of greening

32 The results of the hearing in the Verkhovna Rada Committee on Economic Development on the topic: «Post-legislative oversight in the field of compliance with the requirements for local content (localization) in public procurement» held on June 7, 2024. https://komprompol.rada.gov.ua/uploads/documents/31741.pdf

33 Monitoring of public procurement of goods with localization / CMD-Ukraine. https://komprompol.rada.gov.ua/uploads/documents/31694.pdf

public procurement in Ukraine, which means the targeted use of public procurement to support domestic producers who are taking steps towards decarbonizing their production processes or offering fundamentally new climate-neutral alternatives made using clean technologies. Such enterprises especially need a guaranteed market to achieve economies of scale in the initial stages of launching green production, which are characterized by higher risks and less favorable conditions for price competition compared to producers that retain traditional technological processes. Therefore, the policy of greening public procurement is based on the rejection of the price criterion as a key factor in determining the winners of tenders and the active role of the state in the targeted search for green industries to organize partnerships through public procurement.

Optimization of the customs tariff structure

Customs and tariff policy is an important means of regulating foreign trade to ensure the necessary level of protection for national enterprises that are re-equipping production, rationalizing and restructuring it, implementing the latest management methods to increase the competitiveness of domestic goods on the world market and create a level playing field with foreign producers. Indeed, the role of customs and tariff instruments in regulating trade has significantly decreased over the past few decades, but in many sectors, most countries still use «tariff peaks» - particularly high import duties on sensitive categories of goods. And with the proliferation of global value chains, even small duties levied on imports of intermediate goods can have a significant cumulative effect on the cost of final products if different stages of the production process are dispersed across many countries.

The customs tariff structure of most countries is aimed primarily at protecting the interests of producers of finished goods - consumer goods and means of production - without impeding the import of raw materials, semi-finished products, components and other intermediate products. To protect domestic producers of finished goods and encourage the import of raw materials and semi-finished products, detailed differentiation of import duty rates is used depending on product groups and specific products, taking into account the need for imports, the level of national and world prices, etc. The key principle of such differentiation is to observe tariff escalation, i.e., an increase in the level of customs taxation of goods as the degree of processing increases.

Ukraine's customs tariff structure generally follows the principle of tariff escalation, but there are unfortunate exceptions in specific tariff lines that complicate the business environment for domestic producers and distort incentives for investment in certain industries. For example, the import duty rate for one of the most important components for the production of laser machines - laser sources and optical cutting heads (code 9013 20 UKTZED) - is currently 10%, while the import duty rate for finished machines (code 8456 11 90) containing these components is much lower and amounts to only 4%. The Law of Ukraine «On the Customs Tariff of Ukraine» should be amended immediately to reduce the duty on goods under the code 9013 20 UKTZED to zero.

It is also advisable to initiate a study of the detailed structure of Ukraine's customs tariff in order to identify other cases of irrational use of import duty rates in terms of developing intra-industry cooperation and stimulating access to foreign raw materials and equipment. At the same time, the prospect of EU membership poses a challenge for Ukraine to join the common customs territory with the rest of the community and to introduce the same structure and level of import duties, which are fundamentally different from the current ones. In this regard, there is an objective need for a comparative analysis of both customs tariffs and a thorough study of the likely effects of a radical change in the level of tariff protection for domestic producers in various industries after Ukraine's accession to the EU.

Liberalization of currency restrictions in foreign trade

Since February 2024, the National Bank of Ukraine has tightened a number of currency restrictions to maintain financial stability in the particularly challenging uncertainty of martial law. However, against the backdrop of unprecedented challenges, some of the regulator's decisions lacked balance between the desire to protect the financial system from possible shocks and the burden that was instead placed on the real economy. First and foremost, it was a matter of reducing the deadlines for foreign trade entities to settle export-import transactions in order to improve the discipline of timely return of foreign currency earnings to Ukraine. Before the start of martial law, the relevant terms were 365 days, and as of the end of October 2024, they are only 180 days for most goods and 120 days for some agricultural products (wheat, rye, barley, oats, corn, soybeans, rapeseed, sunflower seeds and oil, oilcake)[34].

Failure to comply with the payment deadlines results in a penalty for each day of delay in the amount of 0.3% of the amount of unpaid funds under the contract (the value of undelivered goods/services) in national currency (in case of settlements under a foreign economic agreement in national currency) or in foreign currency converted into national currency at the official NBU exchange rate set on the day the debt arose.

Obviously, such short settlement terms do not correspond to the peculiarities of international economic relations in the modern world. As a rule, businesses need more time to export/import certain goods due to complex production processes and the

34 It should be noted that starting from July 2024, the National Bank of Ukraine (NBU) partially relaxed these restrictions for certain goods and services. Among other things, the deadlines for settlements for military and dual-use goods, as well as equipment imported by contractors for state defense procurement contracts, have been lifted. The deadlines do not apply to services, except for transportation and insurance.

Companies whose operations fall under such deadlines may also consider a range of different ways to extend them, such as: applying to the Ministry of Economy for individual extensions, obtaining certificates of force majeure or conclusions issued by the Chamber of Commerce, or even pursuing legal or arbitration proceedings against counterparties in cases of breach of agreements. However, all these methods are bureaucratically complex, require additional costs, and the involvement of experts.

specifics of credit relations with foreign counterparties. And this is without taking into account the logistical difficulties for domestic businesses that have arisen as a result of blocking trade routes, massive reorientation to new markets and transit channels, etc. Such terms of payment undermine the competitiveness of Ukrainian producers in international markets and ultimately lead to consequences opposite to those declared by the regulator, as they reduce the potential volume of export operations and negatively affect Ukraine's balance of payments.

Given the extremely negative consequences of severe currency restrictions and the fact that the domestic financial system has overcome the initial shock of a large-scale war, it is necessary to immediately extend the deadlines for settling export and import transactions to 270-365 days.

3.4. Modeling of macroeconomic effects for Ukraine and the EU as a result of reaching a new level of strategic relations

Methodology. In order to quantitatively assess the development prospects of Ukraine and the EU in the context of eliminating existing trade barriers between them, fully realizing export potential, and enhancing trade and investment cooperation in strategic sectors, a combination of methodological approaches and tools of simulation based on computable general equilibrium models was used. Specifically, these included the input-output model in the form of «input-output» tables developed by the State Statistics Service of Ukraine in accordance with the system of national accounts, as well as software and databases from GTAP (Global Trade Analysis Project), developed by the U.S. Center for Economic Modeling.

GTAP™
Global Trade Analysis Project

The data from the «input-output» tables (IOT) reflect the circulation of costs and revenues in the economy through transactions between key economic agents (enterprises, households, the public sector, foreign demand) across various types of economic relations (production, consumption, wages, taxation, subsidies, investment, foreign trade, etc.). According to this approach, the production system is structured so that each sector of the economy produces certain goods, part of which is consumed by itself and/or other sectors, while the remainder is exported out of the system as final goods, satisfying the demand of households, the government, and foreign consumers. Modeling using IOT is carried out by introducing expected volumes of production and consumption in the specified sectors of the economy. Since all sectors in the input-output model are interconnected through the consumption of intermediate goods from one another, as well as through the flow of capital and factors of production, the modeling involves introducing new variables into the matrix system of equations.

In order to account for the effects on the economies of EU countries and the impact of the reconfiguration of global value chains, the GTAP model software and its international database based on the latest version of the Social Accounting Matrices «GTAP 11 Data Base» (release from May 2023 with subsequent corrections and clarifications) were used. This database calculates for 141 countries and 19 aggregated regions of the world across 65 economic sectors. The starting point for modeling in GTAP is the impact of external «shocks» (e.g., the influx of capital investments, changes in import tariffs or other taxes, shifts in productivity, subsidies, simplification of trade procedures, etc.) on prices in certain economic sectors, which then lead to shifts in demand and supply, changes in the use of factors of production, and income from these factors (corporate profits, wages of employees) across the entire national economy, and subsequently in the rest of the world, leading to changes in the conditions, directions, and volumes of foreign trade. Therefore, the results of the research using GTAP answer the question: what will happen under the given impact on the current market equilibrium in the country, primarily in the areas of investment inflows, international trade regulation, taxation, and others.

One way of depicting interrelationships in the GTAP model and database is to describe them as a cycle of income and expenditure in the national economy interacting with the economies of the rest of the world (Fig. 3.9).

Out of all the instruments and areas of intensification of trade, economic and investment relations between Ukraine and the EU, the following were modeled:

- realization of Ukraine's untapped export potential to the EU market, determined by the ITS methodology in the amount of $10 billion for the relevant product groups;
- use of the prospects for substitution of EU imports from the russian federation, belarus and other countries with Ukrainian products in niches where domestic producers have the relevant production and export potential;
- diversification of Ukrainian exports of products with a higher level of economic complexity to the EU markets (see Table 1.8);
- removing non-tariff barriers to the access of Ukrainian

industrial products to the EU market, primarily technical barriers related to certification, conformity assessment and mutual recognition of its results;

- large-scale reconfiguration of international value chains from the EU to Ukraine on the principles of nearshoring and friendshoring in line with the goals of open strategic autonomy (including in the field of critical materials) and the needs of rebuilding the Ukrainian economy ($90 billion to build 570 factories).

For the first four modeling directions, the medium-term effects (3-5 years) were identified in the event of the removal of barriers to access to the EU market, reorientation and diversification of trade flows in favor of the convergence of the economies of Ukraine and the EU. For the fourth scenario, the long-term effects (up to 10 years) of implementing fundamental structural changes in Ukraine's economy and redirecting international flows of goods, works, and services are identified. At the same time, the potential short-term effects of the development of Ukraine's agricultural and food sectors are highlighted in case the EU refuses to continue its policy of restrictions on imports of Ukrainian poultry and sugar (see Box 3).

Results. Of the considered medium-term scenarios, the lowest economic effects are associated with the realization of Ukraine's untapped export potential in trade with the EU, calculated using the ITS methodology. This is due to the fact that this methodology estimates the untapped potential based primarily on the existing structure of trade flows, which for Ukraine is currently dominated by supplies of raw materials and semi-finished products to the EU market. Obviously, increased trade in lower value-added

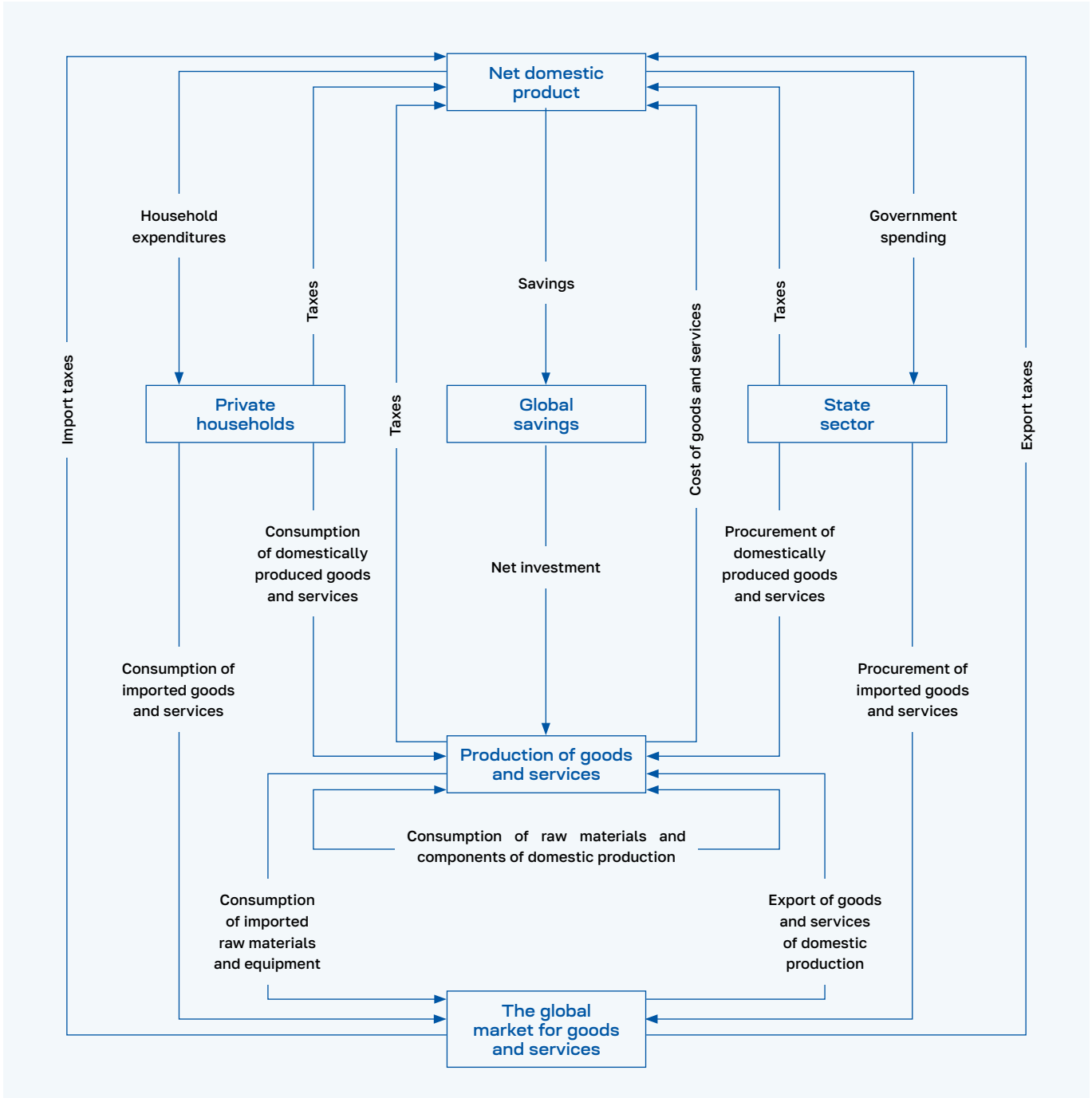


Fig. 3.9. Illustration of general equilibrium in the GTAP model

Table 3.5.
Results of modeling the medium-term effects of deepening trade and economic relations between Ukraine and the EU, %.

Indicators	Modeling scenarios			
	Realization of untapped export potential (ITS)	Substitution of imports to the EU with Ukrainian goods	Diversification of Ukrainian exports by level of economic complexity	Removing technical barriers to trade between Ukraine and the EU
Real GDP	6,0	6,7	8,6	11,3
Gross output, including:	7,4	8,3	10,8	13,0
• agriculture	11,1	2,3	0,5	0,6
• mining industry	15,6	8,7	17,7	7,5
• processing industry	13,3	21,0	26,9	35,4
• services	2,6	1,9	3,7	3,4
Exports	11,7	13,0	19,3	25,7
Imports	8,8	9,8	14,4	15,9
Compensation of employees	5,0	7,8	9,6	12,5
Profit of enterprises	7,0	5,6	7,7	10,2
Tax revenues	5,8	6,6	7,3	9,7

Note:

*imports of intermediate goods, inputs, and services for the production needs of enterprises and the state.

Source: author's calculations based on GTAP ver. 11 model and input-output tables.

Box 3: Estimation of sectoral effects in the poultry and sugar markets

GTAP's modeling of the effects of the elimination of import restrictions imposed by the EU on Ukrainian poultry and sugar in June 2024 shows that the return to free trade in these goods will not really have any tangible effects for EU countries, while Ukrainian producers will experience positive effects at the sectoral level.

If restrictions on poultry imports to the EU are lifted, supplies to the EU will increase by 33.9%, reaching about 180 thousand tons per year. As a result, total poultry exports from Ukraine will increase by 16.3% and production by 1.2%. For the EU countries, this will mean an increase in total poultry imports by only 0.15% and a reduction in domestic production by 0.05%.

With free market access, Ukrainian sugar exports to the EU will increase by 90.7%, reaching about 500 thousand tons per year. As a result, total sugar exports from Ukraine will increase by 46.6%, and production - by 6.14%. At the same time, for the EU countries, this will mean an increase in sugar imports by 0.4%, which may result in a 0.27% slowdown in domestic production.

It should also be noted that at the level of GDP dynamics in Ukraine, this indicator will increase by only 0.0036% in total for both goods, while for the EU countries its changes are generally lost within the statistical error.

Indicators	Ukraine	EU
Poultry meat		
GDP	0,0022	0,0000
Production	1,16	-0,05
Export, including to the EU	16,3 (33,9)	–
Import	–	0,15
Sugar		
GDP	0,0014	0,0000
Production	6,14	-0,27
Export, including to the EU	46,6 (90,7)	–
Import	–	0,40

products will have a relatively weaker impact on the dynamics of macroeconomic indicators. Nevertheless, it is worth noting that even under these conditions, Ukraine's GDP will increase by 6.0% and exports by 11.7% (Table 3.5).

The prospect of substituting European imports from russia, belarus and other countries with Ukrainian-made goods is primarily associated with the intensification of domestic exports of medium-tech products and consumer goods (with some high-tech products, such as agricultural machinery, turbine engines, electrical equipment, etc.) Moreover, the window of opportunity for such substitution is rapidly narrowing, as producers from other countries are also seeking to fill the market niches whose imports from russia and belarus have been subject to EU sanctions. Thus, if this scenario is realized, Ukraine's GDP could grow by an additional 6.7% in the medium term, and exports by 13.0%.

If Ukraine's exports to the EU diversify towards more complex products in metallurgy, machine building, glass and chemicals, specific examples of which were justified in accordance with the concept of product space and economic complexity (see Section 1.4), Ukraine's GDP will increase by 8.6% and exports by 19.3%. Compared to the two previous scenarios, the manufacturing industry will show faster growth (26.9%), while the growth in extractive industries (17.7%) and agriculture (0.5%) will be driven primarily by increased domestic demand for raw materials by manufacturing companies and food by the population. However, as the Atlas of Economic Complexity has shown, if deindustrialization is not halted in time, the space for export diversification toward more complex products will shrink, as will the corresponding economic effects.

The overall macroeconomic effect of the removal of non-tariff barriers to access of domestic products to the EU market is estimated at an additional 11.3% increase in Ukraine's GDP and 25.7% increase in exports. This impact is explained by the significant restrictive level of TBT imposed by the EU on products originating in Ukraine, which was quantified as the ad valorem equivalent of a 36% customs tariff on average (see Section 3.2.3 and Figure 3.7). Since TBTs restrict trade in mainly industrial goods, their elimination will primarily affect manufacturing, which will increase by 35.4%. At the same time, imports are expected to grow by 15.9%.

Ukraine's large-scale involvement in the implementation of the EU's strategic autonomy policy with the corresponding relocation of value chains and the development of the domestic industrial complex will ensure that Ukraine doubles its GDP by 2034 (an increase of 103.4% compared to 2023). The output of goods and services will grow by 152.8%, including manufactured products by 168.9%, which will increase the share of manufacturing in Ukraine's GDP from the current 7.6% to 20.4% in 2034. It should also be noted that the share of Ukraine's manufacturing industry in the EU's total GDP in 2023 was only 0.08%. Thus, if this scenario is realized, it will increase to 0.2% within a decade. For the European Union, actively investing in the relocation of production chains to Ukraine and strengthening its resilience and strategic autonomy on this basis will provide an additional 8% increase in the community's GDP.

Ukraine's mining industry will roughly double its output. The service sector will grow by 63.3%, mainly due to transportation services, wholesale and retail trade, financial activities, and computer programming services. The construction industry will have the fastest growth rates: construction of new and modernized production facilities, massive infrastructure development, and post-war reconstruction will increase by 519.4%. However, the rapid growth of the construction industry is partly explained by a relatively low comparison base.

Exports of goods and services from Ukraine will increase by 194.9%, primarily due to high value-added products in the machine and instrumentation industry, chemical industry, electrical equipment, aerospace products, defense industry, processed critical materials, etc. Imports will increase by 140.5%, of which about two-thirds will be the purchase of foreign equipment and machinery for the needs of organizing and modernizing production, and the rest will be the purchase of intermediate products in related sectors of the Ukrainian economy and the growth of household consumption due to higher incomes. About of the total growth in export and import operations will be due to an increase in trade between Ukraine and the EU. Thus, Ukraine's total foreign trade turnover will increase from the current $100 billion to $260 billion, and the EU's share in it will increase from 56% to 70%.

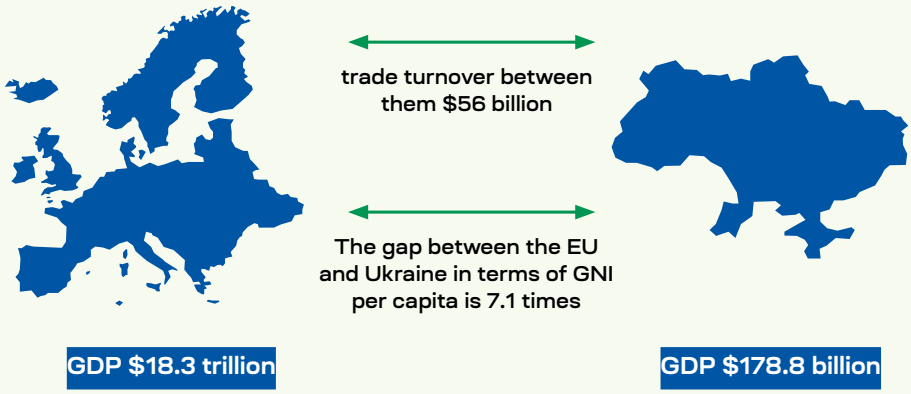
In general, the country's payroll will grow by 115.0%, which will be primarily facilitated by the expected creation of more than 815 thousand new jobs (although given the departure of a large number of people and an acute shortage of labor in the domestic market, this number of new jobs assumes that a significant part of citizens will return home after the end of hostilities, otherwise this figure is subject to revision). Corporate profits will increase by 82.0%. The net effect of tax revenues will amount to UAH 542.2 billion in 2023 prices (it is assumed that the state will allocate funds to stimulate investment, provide soft loans and various tax benefits, which are described in particular in subsection 3.3). Compared to the amount of tax revenues to the state budget of Ukraine in 2023, this will provide a net increase in revenues by 45.1%.

Finally, it should be noted that the progressive development of the Ukrainian economy described above will lead to an outstripping growth in living standards in terms of GNI per capita, which is used by the EU to determine the level of spending on cohesion policy for countries with incomes below the community average. As of 2023, Ukraine's GNI per capita amounted to $5.1 thousand, which is 7.1 times less than the EU threshold of $36.3 thousand (see Table 3.5). If the above scenario is realized, Ukraine's GNI per capita will increase to $12.5 thousand over the next decade, while the EU average will rise to $40 thousand. Thus, the gap between the EU reference indicator and its value in Ukraine will be reduced to 3.2 times, which will significantly ease the burden of the community budget on cohesion policy towards Ukraine after it becomes a full member of the EU.

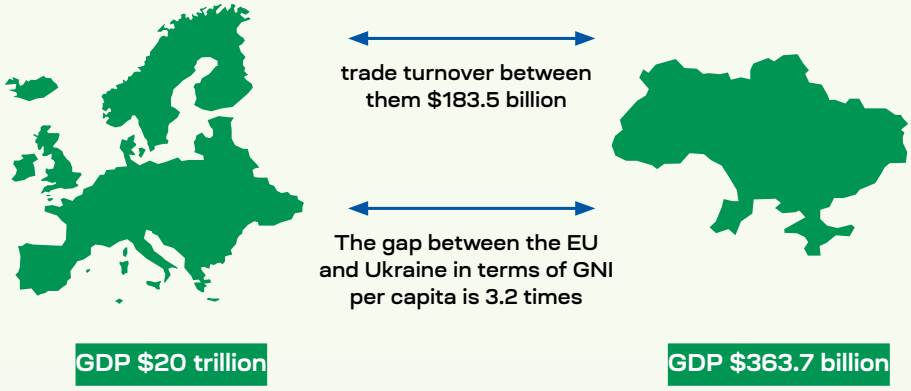
Box 4 contains a summary infographic on the long-term prospects for mutually beneficial cooperation between Ukraine and the European Union in implementing the policy of open strategic autonomy and strengthening resilience in key areas of economic life in times of aggravated geopolitical contradictions.

Box 4. Infographic

Current state



Modeling results





BRIEF CONCLUSIONS TO CHAPTER 3

1. The escalation of geopolitical contradictions between key participants in the global economy, combined with the latest eco-economic development problems, has created a series of fundamental challenges for the EU regarding the preservation of security and the sustainability of its economic mechanism, as well as restoring leadership positions in terms of competitiveness in global markets. Ukraine has sufficient production and resource potential, a favorable geographical location, and shared values and strategic goals with the EU to help united Europe eliminate its economic vulnerabilities and restore its positions on the international stage. Ukraine is an indispensable partner for the EU on the path to achieving its declared goals of open strategic autonomy, which include reformatting participation in foreign trade, increasing the resilience of supply chains, ensuring food security, strengthening innovation and technological potential in key sectors, and more

The main areas where Ukraine can help the EU achieve strategic autonomy on mutually beneficial terms are:

a. Ensuring the EU's supply of critical and strategic materials – Ukraine possesses deposits of 24 out of 34 types of minerals identified by the EU as indispensable for the development of advanced industries and green transition goals. The EU heavily depends on weakly diversified imports from geopolitical competitors for these materials, which could use their position as a political weapon against the EU. With sufficient investment in exploration and extraction, Ukraine could become a key source of stable and predictable supplies of critical materials for the EU's industrial needs, provided that partial processing of these materials takes place within the country.

b. Strengthening the industrial potential and competitiveness of the EU – Ukraine maintains sufficient technological and human resources potential to contribute to the innovative development of strategic industries (military-industrial complex, ICT, aerospace), in which the EU has lost its leadership positions in the global market. Ukraine also possesses production and export potential in several other industrial sectors (metallurgical, chemical, food, machinery, etc.) to strengthen the EU's strategic autonomy. Furthermore, the reconfiguration of value-added chains in favor of Ukraine would provide the EU with shorter transport distances and lower greenhouse gas emissions from international transport.

c. Ensuring food security for the EU – In the foreseeable future, Ukraine's agricultural potential will act as a key stabilizer of the EU's and the global food market amid the negative impacts of climate change and environmental degradation in many countries of the Global South. In the future, Ukraine's EU membership will allow it to offer the community a new model of agricultural production focused on enhancing competitiveness and innovation, as well as help reduce dependence on food imports from third countries, providing additional security for European consumers in the face of global challenges.

In conclusion, the active integration of Ukraine's industry and agricultural sector into the EU's economic framework will contribute to reducing the income gap between Ukraine and the average EU level, easing the burden of cohesion policy for the EU after Ukraine becomes a full member.

2. Alongside the prospects for achieving joint strategic goals that will strengthen the EU on the global stage, Ukraine faces the need to address several current issues in its bilateral trade and economic relations with European partners. These issues are primarily related to eliminating remaining barriers and preventing the introduction of new obstacles to the access of Ukrainian goods, works, and services to the EU market.

According to a survey, the main challenges for Ukrainian businesses are currently:

a. The prospect of the European Union introducing a carbon emissions fee starting in 2026 as part of the Carbon Border Adjustment Mechanism (CBAM), which will significantly affect the production and export potential of domestic businesses in the metallurgical, chemical, energy, and cement sectors. The EU's ambitious green transition plans are driving greenhouse gas emission prices to levels that are unaffordable for Ukrainian exporters, while the conditions of martial law essentially block any prospects for the rapid ecological modernization of production facilities. In these circumstances, the Ukrainian government needs to persuade the European Commission not to extend the CBAM to Ukraine in terms of carbon emissions fees and to consider the prospects of implementing this mechanism at Ukraine's external borders;

b. Removing technical barriers to Ukrainian products' access to the European market by finalizing the conclusion of the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA). Technical Barriers to Trade (TBT) remain the largest obstacle to Ukrainian industrial goods entering the EU market. Their limiting impact far exceeds the effect of European import tariffs before the association agreement came into force. Ukraine should urge the EU to urgently finalize the ACAA agreement and attract funding for the development and modernization of certification infrastructure and conformity assessment according to modern European standards;

c. Preventing the European Union from rolling back its policy of free access to its market for Ukrainian agricultural products due to irrational fears of a mass «takeover» of the European market by Ukrainian farmers. In reality, Ukrainian exports play an important stabilizing role in the EU market and create numerous opportunities for the development of the processing industry in European countries, while the share of Ukrainian food in the EU consumption structure remains relatively small. Given the significant increase in the cost of agricultural production during the war and the prospects of implementing European regulations in Ukraine regarding animal health and welfare and the introduction of plant protection products, the idea that cheap Ukrainian food will destroy the EU agricultural sector is nothing more than a

myth. Therefore, it is necessary to demand from the EU and some of its member states the cancellation of quotas on the supply of Ukrainian poultry meat, eggs, sugar, oats, cereals, honey, and corn, which were reinstated in 2024;

d. The possibility of the EU reintroducing trade protection measures for Ukrainian metallurgical products after the expiration of the Anti-Dumping Measures (ATM) in June 2025.

3. The perspective of European integration defines the relevance of improving and further developing Ukraine's national economic policy aimed at enhancing its production and export potential.

The «Made in Ukraine» policy should be significantly expanded and include the following steps:

- Increasing budget financing and attracting funds from European specialized funds for the establishment of industrial parks and tax incentives for their participants;
- Implementing a program for partial compensation of capital investments through taxes for investors implementing projects in the processing industry, in accordance with the norms and principles of European regional development policy;
- Introducing a program for partial compensation of the cost of domestic machinery and equipment for machine-building enterprises, similar to the one currently operating for agricultural machinery and equipment;
- Creating a state bank for reconstruction and development to ensure long-term preferential financing and consulting support for strategically important infrastructure, industrial, and innovation projects;
- Establishing a network of trade representations at embassies abroad as a mechanism for protecting the interests of manufacturers in global markets, promoting domestic exports, and encouraging investment in high-productivity sectors of the economy;
- Expanding localization in public procurement to include several new product groups and sectors such as machine-building, construction materials, light industry, defense procurement, etc., as well as implementing the environmentalization of public procurement;
- Optimizing the structure of Ukraine's customs tariff by abolishing duties on raw materials, intermediate products, and innovative equipment, and introducing duties on finished products;
- Liberalizing currency restrictions in international trade, primarily by increasing the maximum payment terms for export-import transactions by domestic foreign economic activity entities to 270–365 days.

4. The simulation results show that, under the effective inclusion of Ukraine into the EU's open strategic autonomy policy, the domestic economy will embark on a new growth trajectory. This will allow Ukraine to double its GDP in 10 years and radically change the structure of its production and foreign trade, with a significant share of complex technological industrial products with high added value. At the same time, the EU will significantly strengthen its economic resilience on the global stage, reduce its dependence on geopolitical competitors in most critical areas, and ease the burden of implementing cohesion policy towards Ukraine once it gains full membership in the community. The gap between the EU's reference GDP per capita and Ukraine's GDP per capita will shrink by more than half.

Modeling the medium-term effects of removing barriers to trade between Ukraine and the EU and developing export potential shows the prospects of eliminating technical barriers to trade (TBT) related to compliance assessments, diversifying Ukrainian exports towards higher complexity products, and replacing some EU imports from third countries with Ukrainian goods.





CONCLUSIONS

1. The unprecedented challenges of the full-scale invasion in February 2022 became a catalyst for the development of trade and economic cooperation, and Ukraine's integration into the EU.

The EU's share in Ukraine's foreign trade turnover reached 56%, but this occurred against the backdrop of the unfolding crisis in the Ukrainian economy, the blockage of traditional trade routes, and a decrease in trade volumes with the rest of the world. The structure of export flows from Ukraine to the EU experienced significant simplification, with agricultural and food industry products dominating, while the share of metallurgical and machine-building products sharply decreased. In contrast, the structure of imports was fundamentally different: it consisted mainly of petroleum products, chemicals, machine-building, and other products with high technology and added value. This results in a highly uneven exchange and exacerbates Ukraine's trade balance deficit.

2. The use of the unused export potential assessment methodology for Ukraine revealed the prospects for increasing domestic exports to the EU by $10 billion, primarily in traditional sectors of the economy.

At the same time, a detailed analysis of the structure of European imports and the EU's sanctions policy against aggressor countries allowed for the identification of several product groups that Ukrainian manufacturers can urgently supply to replace imports from russia, belarus, and other countries that have been assigned high-risk status as trading partners due to the current geopolitical tensions. This includes various products such as non-ferrous metals and their products, wood processing industry products, ethanol, nitrogen fertilizers, turbo engines, pneumatic rubber tires, rapeseed and soybean oil, electrical conductors, lighting equipment, and more (a full list is provided in Annex A). Reorienting EU countries to prioritize the supply of these products from Ukraine will enhance the competitiveness and resilience of

both sides. However, this is currently hindered by residual non-tariff barriers to the access of Ukrainian goods to the EU, as well as a lack of awareness on the European side about the potential for utilizing Ukraine's production and export capabilities in various sectors to ensure its own strategic autonomy.

3. The use of the product space theory and the methodology for assessing the economic complexity of products has allowed for the identification of product groups where Ukrainian industry retains potential to diversify domestic exports to EU countries in the short and medium-term by increasing the share of high-value-added products.

These products include: certain machine-building products (such as harvesters, milk processing equipment, trailers and semi-trailers for vehicles, refrigeration and freezing equipment, boilers for central heating), electrical equipment (including safety, traffic regulation, and control equipment; parts for electric motors and generators), fiberglass, various rubber vulcanized products, plastic sanitary goods, wooden railway ties, cement and concrete products, stoves, ovens, and other similar products made from non-ferrous metals. The realization of this potential depends on further improvement and development of industrial policy in Ukraine.

4. To specify the prospects and challenges of European integration for Ukrainian business, as well as to identify problem areas and bottlenecks in enhancing trade, economic, and investment cooperation between Ukraine and EU countries, a survey was conducted involving 15 industry associations and 48 manufacturing companies, which together represent 37 sectors of the domestic economy.

The results of the survey showed overwhelming optimism within the business community regarding the prospects for developing Ukrainian production and exports to the EU, despite all the wartime challenges (primarily disruptions in energy supply, destruction of logistics infrastructure, shortage of skilled labor, etc.) that have persisted for the third consecutive year in Ukraine. EU countries are a key, and sometimes even the only, market for many Ukrainian producers who have faced a sharp decline in domestic demand following the flight of millions of Ukrainian citizens due to the war. All respondents emphasize the need to maintain free access to European markets and develop domestic government policies focused on modernizing production capacities and supporting exports. At the same time, it is noted that, under wartime conditions, Ukraine must seek to ease the burden of climate and other policies from EU countries aimed at achieving the EU's ambitious global goals.

5. An unprecedented window of opportunity for strengthening Ukraine's role and significance in the economy of a united Europe arises from the EU's awareness of the acute need to achieve open strategic autonomy by reorienting international value chains to reduce economic dependence on geopolitical competitors and establishing closer trade and investment cooperation with geographically closer partner countries that share common values and approaches to fair trade and competition.

Examples of such policies today are friendshoring and nearshoring, and in both approaches, Ukraine is one of the most natural and obvious partners for the EU. Ukraine has the opportunity to help the EU ensure its strategic autonomy in the most vital areas, such as ensuring European industry with critical materials (Ukraine holds deposits of 24 out of 34 critical materials), strengthening the EU's competitiveness in several advanced sectors (aerospace, defense industry, ICT, etc.), reducing carbon emissions from international transportation (since relocating value creation chains to a neighboring country will significantly reduce the transport distance), ensuring Europe's food security, and maintaining price stability on the global agricultural market amidst the destructive effects of climate change on the agricultural sectors of many Global South countries.

6. According to the survey of businesses, the biggest current challenges to the development of trade and economic relations between Ukraine and the EU are: the threat of the imposition of carbon emissions charges on Ukrainian products imported to the EU (such as black metals and products made from them, aluminum, iron ore, cement, electricity, fertilizers), due to the EU's ambitious decarbonization plans against the backdrop of energy challenges, which have caused the price of emissions on the EU ETS market to soar; the cancellation of the EU's free access to the European market for Ukrainian poultry meat, eggs, sugar, oats, cereals, honey, and corn under the destructive influence of unfounded and irrational fears among many European farmers about a total «takeover» of the European food market by Ukrainian agrarians; and the ongoing delays in implementing the «industrial visa-free regime» for Ukrainian exports to the EU, resulting in non-tariff barriers remaining for Ukrainian industrial goods in the European market, which significantly exceed the customs tariffs that applied in the EU to Ukrainian products before the association agreement came into force.

7. To make the most of all the economic growth opportunities opened up by the prospect of Ukraine's European integration and its integration into the system of the EU's open strategic autonomy, it is crucial to improve and develop Ukraine's internal policy regarding the development of its national production and export potential.

This policy should include the following steps: increasing funding for the establishment of industrial parks; implementing a partial capital investment compensation program through taxes in accordance with the norms and principles of the EU's regional development policy; introducing a program for partial compensation of the cost of domestic machinery and equipment for machine-building enterprises; creating a development and growth bank to provide long-term preferential financing and consulting support for strategically important infrastructure, industrial, and innovation projects; establishing a network of trade representations at Ukraine's embassies abroad; expanding localization and greening of public procurement; optimizing the structure of Ukraine's customs tariff; liberalizing currency restrictions in international trade, particularly in terms of extending payment terms for export-import operations.

8. The key message that the Ukrainian government and business community must convey to European partners is that, in order to overcome the latest geopolitical challenges and regain leadership positions on the international stage, the European Union needs Ukraine as much as the domestic

economy needs support during the existential war of attrition.

t is in the EU's interest to reorient supply and production chains from geopolitical adversary countries to Ukraine in many industries, deepen cooperation with Ukraine to achieve strategic autonomy, avoid introducing new barriers to Ukrainian product imports, and remove those that continue to block access to the European market.

In accordance with the above principles, the most important points of Ukraine's negotiating position should include:

- **Use practical cases to argue the feasibility of replacing imports from russia, belarus, and other geopolitical competitors with Ukrainian-produced goods in those industries where domestic businesses have demonstrated high production and export potential, even under the extremely unfavorable conditions of wartime (based on Appendix A).**
- **Emphasize Ukraine's role as the most convenient partner for the EU in nearshoring and friendshoring, which will reduce transportation distances and CO_2 emissions from international shipments for European supply chains, share common values with the EU, develop a system of state support for industry, and maintain significant innovation potential in industries where the EU faces a severe lack of strategic autonomy (such as aerospace, defense, and ICT).**
- **Activate cooperation and attract investment in the exploration and extraction of critical materials in Ukraine for the green transition and modernization of the EU industry, with the essential condition of establishing partial processing of these materials and the production of products from them in Ukraine.**
- **Insist on the removal of barriers reintroduced by the EU on Ukrainian agricultural and food products, as these hinder, above all, the prospects for food security and industrial development in EU countries, given that Ukraine's agricultural exports are a powerful stabilizing factor for the global and European food markets.**
- **Advocate for the postponement of carbon emission charges for Ukrainian products imported into the EU under the CBAM, as domestic industries objectively do not have the capacity for large-scale modernization projects to reduce CO_2 emissions during wartime, while the carbon fees would block up to 15% of Ukraine's exports to the EU (primarily metallurgical products, cement, fertilizers).**
- **Accelerate the process of concluding and implementing the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA) between Ukraine and the EU, as this will remove the most significant real barriers to accessing the EU market for Ukrainian industrial products, related to the prohibitive costs of certification and conformity assessment procedures.**
- **Convince the EU of the feasibility of providing financial support through the ERDF to establish industrial parks and use other state incentives for industrial development in Ukraine, which will facilitate the relocation of European business production chains to Ukraine and relieve the EU of a significant share of the burden of cohesion policy after Ukraine's EU accession, as rapid industrialization will contribute to growth in GDP per capita in Ukraine as part of the preparation for EU membership.**

9. Simulation has shown that, with Ukraine's effective integration into the EU's open strategic autonomy policy, the national economy will enter a new growth trajectory, allowing Ukraine to double its GDP and fundamentally change the structure of its economy over the next decade.

Specifically, investments of $90 billion in the construction of 570 factories in Ukraine will lead to a 152.8% increase in the output of goods and services, including a 168.9% increase in the production of manufactured products. As a result, the share of manufacturing in the country's GDP will rise from the current 7.6% to 20.4%. Exports of goods and services from Ukraine will increase by 194.9%, primarily due to high-value-added products in machine engineering, chemical industry, electrical equipment, aerospace products, defense industry, and processed critical materials. About 815,000 new jobs will be created. Despite significant budget expenditures on tax and other incentives for industry and investment, tax revenues will increase by 45.1%. The gap in GDP per capita between the EU and Ukraine will narrow from the current difference of 7.1 times to 3.2 times, which will significantly ease the burden on the EU budget for cohesion policy towards Ukraine after its full membership in the EU.

10. Despite the broad range of issues analyzed in this study, it does not claim to be exhaustive, as there are many potential areas where efforts can be focused to deepen strategic trade and economic cooperation between Ukraine and the EU in various sectors.

At the same time, the changing global market conditions may alter the role and significance of certain commodity groups within the priorities of European integration. In this regard, and considering the wide range of issues identified in the «Ukraine - EU» relations during the study that have not yet received adequate coverage in domestic analyses, it seems appropriate to focus future research steps in the following directions: developing Ukraine's industrial and export strategy, taking into account the prospect of EU membership and radical transformation of economic relations between global centers of influence; comparative study of the EU and Ukraine's customs tariff structures, with an evaluation of the prospects for introducing EU import duties in Ukraine for third countries after joining the EU customs union; preparing case studies analyzing the prospects of win-win partnerships with the EU in specific areas: critical materials, supply of certain types of products to the European market, and joint projects between EU investors and Ukrainian businesses for building production capacities in Ukraine.



Appendix A

Generalized list of identified commodity groups that are a priority in the development of Ukraine's trade and economic relations in the context of negotiations on Ukraine's membership in the EU

Code for UKTZED	Description of the product group	Areas of prioritization		
		Rapid development of exports to the EU	Substitution of imports from third countries	Economic modeling
0207	Meat and edible offal of poultry, fresh, chilled or frozen	✓	✓	
0407 21	Eggs of domestic chickens	✓		
0409	Natural honey	✓		
0811	Frozen berries; jams and preserves (raspberries, currants, gooseberries, blackberries, mulberries, etc.)	✓		
1108	Starch	✓		
1507	Soybean oil		✓	
1512	Sunflower oil	✓		✓
1514	Rapeseed oil		✓	✓
1701 99	Sugar from sugar beet	✓		
1704	Confectionery products made from cocoa sugar	✓		
1806	Chocolate and other prepared food products containing cocoa	✓		
1902	Pasta products	✓		
1905 31–32	Sweet dry biscuits; wafers, waffle rings	✓		
2002	Tomatoes cooked or preserved without vinegar or acetic acid	✓		
2009 61–79	Grape and apple juices	✓		
2207	Ethyl alcohol	✓	✓	
2208 60	Vodka	✓	✓	
2523	Portland cement	✓		
3102 10	Urea (urea)		✓	
3214	Putties for painting, glass putties and other mastics			✓
3808	Plant protection products		✓	
3820	Antifreeze preparations and ready-made liquid deicing compounds			✓
3920 10	Films, sheets, boards, tapes made of ethylene polymers		✓	
3921	Other plastic plates, sheets, films			✓
3922	Plumbing products made of plastics			✓

Code for UKTZED	Description of the product group	Areas of prioritization		
		Rapid development of exports to the EU	Substitution of imports from third countries	Economic modeling
3925	Plastic products: doors, windows and their frames, trims and thresholds	✓		
4008	Plates, sheets, tapes, rods, profiles made of vulcanized rubber			✓
4011 10–20	Pneumatic rubber tires and covers for cars and trucks		✓	
4016	Other vulcanized rubber products			✓
4406	Wooden sleepers for railway tracks			✓
4408 10	Sheets for wood cladding			✓
4410 12	Oriented strand board (OSB) with oriented strand board (OSB)		✓	
4411 13–14	Medium density fiberboard (MDF)		✓	
4412 33	Glued plywood	✓	✓	
4415 20	Wooden pallets; wooden shells	✓	✓	
4418	Assembled wooden floor panels and other building materials made of wood		✓	
4421 99	Other wood products		✓	
4818 10–20	Paper towels, napkins, handkerchiefs; toilet paper	✓		
55–63	Textiles, knitwear; clothing and accessories		✓	
6810 11	Tiles, tiles, slabs, bricks and similar products made of cement, concrete, artificial stone		✓	✓
6907; 6910	Ceramic products (tiles and other ceramic finishing products; sinks, washbasins, bathtubs, toilets and other sanitary products made of ceramic)		✓	
7008	Multilayer glass insulation products			✓
7010	Glass containers (bottles, jars, cans)	✓		
7019	Fiberglass and fiberglass products			✓
7201 10	Non-alloy pig iron (w(P) ≤ 0,5%)			✓
7202 30	Ferrosilicon manganese			✓
7207 11–12	Semi-finished products made of carbon steel with a mass fraction of carbon of less than 0.25%, rectangular cross-section		✓	✓
7208 37–39, 51	Flat carbon steel products with a width of 600 mm or more, hot-rolled		✓	✓
7213 91	Hot-rolled carbon steel bars, round cross-section, d < 14 mm			✓
7214	Other bars made of iron or unalloyed steel		✓	
7217	Iron or unalloyed steel wire	✓		
7304	Hollow, seamless pipes, tubes and profiles made of ferrous metals	✓		
7308	Metal structures and parts thereof; articles intended for use in metal structures	✓	✓	
7321	Stoves, cookers, boilers, barbecues, burners for ferrous metal stoves			✓
7325	Other products cast from ferrous metals			✓

Code for UKTZED	Description of the product group	Areas of prioritization		
		Rapid development of exports to the EU	Substitution of imports from third countries	Economic modeling
7407 21	Bars and profiles made of copper alloys		✓	
7601 20	Aluminum alloys	✓		
7604 21–29	Aluminum alloy rods and profiles		✓	
8403	Boilers for central heating			✓
8411 12	Turbojet engines with thrust over 25 kN		✓	
8411 91	Parts for turbojet engines		✓	
8418	Refrigeration and freezing equipment			✓
8431 49	Parts for machines and mechanisms of road construction equipment (bulldozers, excavators, road rollers, other machines for digging, tamping, leveling, compacting soil, minerals or ores)		✓	
8433	Machines and mechanisms for harvesting and threshing crops			✓
8434	Equipment for milk processing			✓
8503	Parts for electric motors and generators			✓
8504	Electrical transformers, static electrical converters (e.g., rectifiers), inductors and chokes		✓	
8516 71	Electric water heaters for making coffee or tea	✓		
8526 92	Radio remote control equipment	✓	✓	
8530	Electrical equipment for safety, control and traffic regulation			✓
8531 10	Electrical alarms for protection against theft or fire and similar devices	✓	✓	
8537	Consoles, panels, consoles, tables, switchboards and other bases for controlling or distributing electrical current	✓		
8544 49	Electrical conductors (cables) for voltages not exceeding 1000 V		✓	
8544 60	Electrical conductors (cables) for voltages above 1000 V		✓	
8606	Freight railcars		✓	
8607 19	Wheelsets, wheels and their parts for railway locomotives and rolling stock	✓		
8702	Buses		✓	
8703	Passenger cars	✓		
8716	Trailers and semi-trailers			✓
9401	Seating furniture	✓		
9403 30–60, 90	Wooden furniture used in institutions, shops, kitchens, bedrooms, other living rooms; parts thereof	✓	✓	
9405	Lighting equipment	✓	✓	

NOTES