

Міжнародні економічні відносини

UDC 339.56:330.34

Wang Yongshun

a third-level higher education candidate,

'Doctor of Philosophy' (PhD)

in the specialty 292 International economic relations,

at the West Ukrainian National University

Ван Юншунь

здобувач третього рівня вищої освіти «доктор філософії»

за спеціальністю 292 Міжнародні економічні відносини

Західноукраїнського національного університету

ORCID: 0009-0005-3091-5812

Науковий керівник:

Зварич Роман Євгенович

доктор економічних наук, професор

Західноукраїнський національний університет

**RESEARCH ON CHINA-UKRAINE FOREIGN TRADE COOPERATION
UNDER THE PERSPECTIVE OF THE "BELT AND ROAD" INITIATIVE**

**ДОСЛІДЖЕННЯ ЗОВНІШНЬОТОРГОВЕЛЬНОГО
СПІВРОБІТНИЦТВА МІЖ КИТАЄМ ТА УКРАЇНОЮ В РАМКАХ
ІНІЦІАТИВИ «ОДИН ПОЯС, ОДИН ШЛЯХ»**

Summary. *Introduction. In recent years, the Belt and Road Initiative (BRI), launched by China, has become a key platform for international economic cooperation, promoting infrastructure development, trade facilitation, and integration across Asia, Europe, and beyond. Ukraine, as one of the first European*

countries to actively respond to the BRI, has developed a robust trade relationship with China, marked by increasing bilateral trade volumes and deepening economic cooperation. Since 2019, China has maintained its position as Ukraine’s largest trading partner, underscoring the strategic importance of the bilateral relationship. However, the escalation of geopolitical tensions following the Russian invasion of Ukraine in 2022 has posed serious challenges to this cooperation. Many joint projects, particularly those related to the BRI, have been suspended or halted due to security and logistical constraints. Nevertheless, Ukraine's geographical location at the crossroads of Europe and Asia, along with its agricultural capacity and industrial potential, continues to make it a vital participant in the initiative. Understanding how to adapt bilateral trade cooperation in light of the Ukrainian crisis and capitalize on Ukraine’s strategic potential is now a pressing issue for both countries.

Purpose. The primary purpose of this study is to analyze the current state, challenges, and future prospects of China–Ukraine foreign trade cooperation within the framework of the Belt and Road Initiative. The article seeks to assess the bilateral trade dynamics from 2015 to 2023, evaluate the economic and logistical potential of Ukraine as a strategic hub in Eurasia, and identify key obstacles that limit deeper economic engagement. Furthermore, this research aims to develop practical recommendations for enhancing bilateral cooperation in sectors such as agriculture, energy, infrastructure, and digital economy. The overarching objective is to explore ways of transforming geopolitical challenges into new opportunities for collaboration based on mutual benefit, economic pragmatism, and sustainable growth.

Materials and methods. This study employs a multidisciplinary approach combining quantitative and qualitative research methods. The empirical basis includes statistical data on trade volumes, commodity structures, and investment

flows between China and Ukraine from 2015 to 2023, sourced from national statistical agencies, customs databases, and international trade reports. The study also reviews and synthesizes findings from recent academic publications, policy analyses, and case studies conducted by Chinese, Ukrainian, and international researchers. Content analysis is used to evaluate the positions of both countries in strategic documents and public discourse surrounding the BRI. Comparative analysis is applied to examine trade patterns before and after the escalation of the Ukrainian crisis

Results. The research reveals that China–Ukraine trade cooperation has demonstrated notable resilience amid challenging external conditions. Prior to the war, trade volumes between the two countries were growing steadily, especially in agricultural products (e.g., grain, oilseeds), metallurgy, and machinery. China emerged as a key market for Ukrainian exports and a growing investor in strategic sectors. However, the war disrupted logistics chains, complicated payments, and created legal and infrastructural uncertainties. Despite this, trade has not collapsed entirely, and certain sectors, such as digital services and agricultural exports, have shown adaptability. The analysis also shows that Ukraine has untapped potential to serve as a transport and logistics hub within the BRI framework, thanks to its Black Sea ports, railway connections, and proximity to the EU. Nonetheless, the absence of institutional coordination mechanisms and risk management strategies continues to impede large-scale investment and limits the diversification of trade cooperation.

Discussion. The findings of this research highlight the importance of rethinking and adapting the China–Ukraine trade relationship within the evolving geopolitical landscape. While existing studies have examined the economic, logistical, and strategic aspects of cooperation, this study places greater emphasis on the structural barriers and institutional gaps that hinder the realization of long-term goals. One key recommendation is the development of a bilateral risk

management framework that includes diplomatic, financial, and legal instruments for project continuity. Additionally, strategic cooperation should prioritize sectors less vulnerable to disruption, such as digital trade, agricultural technology, renewable energy, and education. There is also a need to enhance institutional dialogue and policy alignment to ensure coherent implementation of BRI projects in Ukraine. Ultimately, fostering a resilient and flexible trade partnership, rooted in mutual interests and adaptive strategies, could transform current limitations into a foundation for renewed bilateral engagement and shared prosperity.

Key words: Belt and Road Initiative, foreign trade, China, Ukraine, economic cooperation, partnership, logistics, resource endowment, economic integration.

Анонція. Вступ. Останніми роками Ініціатива "Один пояс, один шлях" (Belt and Road Initiative, BRI), започаткована Китаєм, стала ключовою платформою для міжнародного економічного співробітництва, спрямованою на розвиток інфраструктури, спрощення торгівлі та інтеграцію країн Азії, Європи та інших регіонів. Україна, як одна з перших європейських держав, що активно підтримала цю ініціативу, сформувала міцні торговельні зв'язки з Китаєм, які характеризуються зростанням обсягів двосторонньої торгівлі та поглибленням економічної взаємодії. З 2019 року Китай посідає перше місце серед торговельних партнерів України. Однак загострення геополітичної ситуації після вторгнення росії в Україну у 2022 році поставило під загрозу численні спільні проєкти, зокрема в межах BRI. Попри це, стратегічне розташування України на перехресті Європи та Азії, її аграрний потенціал і промислові ресурси зберігають її важливу роль у реалізації ініціативи. У цьому контексті особливо актуальним є питання адаптації торговельної співпраці до нових умов і реалізації потенціалу України в межах BRI.

Мета. Метою дослідження є аналіз сучасного стану, основних викликів і перспектив розвитку зовнішньоторговельного співробітництва між Китаєм та Україною в межах Ініціативи "Один пояс, один шлях". У роботі розглядається динаміка двосторонньої торгівлі за період 2015–2023 років, оцінюється логістичний та економічний потенціал України як стратегічного хабу у Євразії, а також виявляються ключові бар'єри, що обмежують подальшу економічну взаємодію. Окрема увага приділяється розробленню практичних рекомендацій щодо активізації співпраці у сферах сільського господарства, енергетики, інфраструктури, промисловості та цифрової економіки на основі принципів взаємної вигоди, економічного прагматизму та сталого розвитку.

Матеріали і методи. У дослідженні використано міждисциплінарний підхід, що поєднує кількісні та якісні методи аналізу. Емпіричну базу становлять статистичні дані щодо обсягів торгівлі, товарної структури та інвестицій між Китаєм і Україною у 2015–2023 роках, отримані з офіційних джерел: державних органів статистики, митної звітності та міжнародних торговельних оглядів. Проведено аналіз наукової літератури, аналітичних доповідей і кейс-досліджень китайських, українських і міжнародних авторів. Для аналізу позицій сторін використано контент-аналіз стратегічних документів, а також проведено порівняльний аналіз торговельних моделей до і після загострення української кризи.

Результати. Результати дослідження свідчать про відносну стійкість торговельно-економічних зв'язків між Китаєм та Україною, незважаючи на серйозні зовнішні виклики. До початку повномасштабної війни двостороння торгівля демонструвала стабільне зростання, особливо в таких секторах, як сільське господарство (зернові, олійні культури), металургія та машинобудування. Китай став ключовим імпортером української

агропродукції та одним із найбільших інвесторів. Проте війна спричинила порушення логістики, ускладнення розрахунків та зниження інвестиційної привабливості. Попри це, деякі галузі – зокрема цифрові послуги й агроекспорт – продемонстрували адаптаційний потенціал. Також встановлено, що Україна має значні можливості для перетворення на логістичний центр BRI завдяки морським портам, розвинутій залізничній мережі та близькості до ринку ЄС. Однак відсутність належної інституційної координації та ефективних механізмів захисту проєктів стримує розвиток і диверсифікацію співпраці.

Перспективи. Отримані результати підтверджують необхідність переосмислення й адаптації моделі співпраці між Україною та Китаєм у нових геополітичних умовах. Якщо попередні дослідження фокусувалися переважно на економічних та інфраструктурних аспектах, то ця робота акцентує увагу на інституційних бар'єрах і структурних прогалинах. Серед ключових рекомендацій – створення двосторонньої системи управління ризиками, яка охоплювала б дипломатичні, фінансові та правові інструменти забезпечення стабільності проєктів. Стратегічна взаємодія має також зосередитися на менш вразливих до конфліктів секторах, таких як цифрова економіка, агротехнології, відновлювана енергетика й освіта. Посилення політичного діалогу та узгодження стратегій розвитку дозволить підвищити ефективність реалізації проєктів у межах BRI. У підсумку, формування гнучкого, адаптивного та взаємовигідного партнерства може стати основою для відновлення довготривалої співпраці та спільного економічного зростання.

Ключові слова: ініціатива "Один пояс, один шлях", зовнішня торгівля, Китай, Україна, економічне співробітництво, партнерство, логістика, ресурсний потенціал, економічна інтеграція.

Formulation of the problem. As one of the first countries to respond to the Belt and Road Initiative, Ukraine has a good foreign trade foundation with China, and economic and trade cooperation is deepening. Since 2019, China has been Ukraine's largest trading partner for many consecutive years. After Russia invaded Ukraine, China-Ukraine foreign trade cooperation was blocked, and many projects related to the Belt and Road Initiative were forced to close. As a major agricultural country in the world, an important hub for Eurasian exchanges, and an important participant in the Belt and Road Initiative, Ukraine has huge room for further development in trade prospects with China.

The Ukrainian crisis has seriously affected the important layout of China's "Belt and Road" initiative in Eurasia. Ukraine is located in the center of Eurasia and is the intersection of transit transportation lines. Its location advantage is crucial to the implementation of the "Belt and Road" initiative. How to avoid the negative impact of the Ukrainian crisis in the "Belt and Road" layout and further deepen the foreign trade relations between China and Ukraine needs to be further explored.

Analysis of recent research and publications. Analysis of recent research and publications. The problems of economic and trade relations between Ukraine and China researched many scientists. Zhu Haihua [1] conducted an in-depth analysis of the global food supply chain security issues under the Ukrainian crisis in the countries along the "Belt and Road"; Chiron [2], in his graduation thesis, focused on the countermeasures of China-Ukraine economic and trade cooperation; Zhang Yicheng and Zhou Xingyu [3] studied the trade exploration between China and Ukraine under the "Belt and Road" initiative; Yao Chenmin, Wang Yun and Xu Xingkai [4] conducted in-depth research on the development dynamics and countermeasures of China-Ukraine agricultural product trade under the "Belt and Road" initiative; Ostap Fedyshyn focused on Ukraine's participation, opportunities, challenges and prospects in the Belt and Road led by China; Wang Xia and Su Shijie

focused on the effectiveness, problems and countermeasures of the China-Europe Express in promoting high-level opening up; Yan Shaojun mainly studied the impact of the Ukrainian crisis on the "Belt and Road" and China's response strategy.

Identification of Unresolved Aspects of the General Problem. The China–Ukraine foreign trade cooperation within the framework of the Belt and Road Initiative holds significant strategic and economic value, providing opportunities for bilateral growth through infrastructure development, agricultural collaboration, and industrial integration. However, several unresolved issues persist in the current model of cooperation, which limit its potential and practical implementation. One such problem is the absence of a comprehensive risk management mechanism that could mitigate the effects of geopolitical instability, such as the ongoing Ukrainian crisis. This gap leaves large-scale joint projects vulnerable to disruption and threatens the sustainability of long-term economic collaboration.

The aim of the article. The purpose of this article is to provide a comprehensive analysis of the current state, challenges, and prospects of foreign trade cooperation between China and Ukraine within the context of the Belt and Road Initiative. The focus is placed on examining the dynamics of bilateral trade from 2015 to 2023, assessing the resource potential of Ukraine and other participating countries in the initiative, and identifying the main barriers hindering further economic interaction. To achieve this goal, the article sets out the following objectives: to analyze the dynamics and structure of trade turnover between China and Ukraine, taking into account key commodity groups and changes in the external economic environment; to identify the factors that facilitate or hinder the development of bilateral trade; to study Ukraine's potential as a logistics and infrastructure hub within the Belt and Road framework; to outline promising areas of cooperation in agriculture, industry, energy, transportation, and digital trade; and to develop specific proposals aimed at strengthening the strategic partnership

between China and Ukraine based on the principles of mutual benefit, economic efficiency, and sustainable development.

Presentation of the main material. China and Ukraine are important economic and trade partners of each other and enjoy a sound foundation for bilateral economic and trade cooperation. Since the establishment of diplomatic ties more than 30 years ago, China-Ukraine economic and trade relations have maintained a momentum of steady development, especially with their rapid development in recent 7 years. Since the implementation of the "Belt and Road" initiative, the foreign trade cooperation between China and Ukraine has shown a significant growth trend, which is embodied in the continuous increase of trade volume and the optimization of trade structure. From 2015 to 2022, the total import and export trade between China and Ukraine increased from us \$7.07 billion to US \$19.1 billion. At the same time, China's exports to Ukraine and imports from Ukraine also increased, nearly three times, Ukraine in 2015, 2020, 2021, 2022 trade surplus with China, while China in 2016 to 2019 maintain high surplus, trade surplus fluctuated during this period but the overall upward trend. This shows that Ukraine's export capacity to the Chinese market is increasing. Although the trade surplus between Ukraine and China is generally on the rise, the annual fluctuations also reflect some uncertainties in the trade relationship between the two countries, such as changes in the global economic environment and regional political risks. In terms of the composition of trade between China and Ukraine, export commodities are mainly concentrated in high value-added products such as machinery and equipment, electrical appliances and textiles, while imported commodities are mainly agricultural products, metal minerals and chemical products. This trade structure not only reflects the complementarity of the two countries in the stage of economic development and industrial structure, but also reflects the deepening of China-Ukraine cooperation under the Belt and Road Initiative.

In order to further analyze the composition of China-Ukraine trade and its changing trend, we can divide the data into two stages for comparative analysis: 2015-2019 and 2020-2022. In the previous stage, the total import and export trade between China and Ukraine increased from us \$7.07 billion to US \$9.69 billion, with an average annual growth rate of about 7%. During this period, China's exports to Ukraine grew from \$3.51 billion to US \$7.39 billion, with an average annual growth rate of nearly 8%. The main feature of this stage is a steady increase in the export share of high value-added products such as machinery, equipment and electrical appliances, while imports of basic raw materials such as agricultural products and metal mines have also increased. Since 2020, the trade between China and Ukraine has continued to maintain steady growth, with the total import and export trade increasing from US \$14.87 billion to US \$19.17 billion in 2021. In 2022, due to the decline due to the global epidemic, but the average annual growth rate was a large range. At this stage, although machinery and electrical appliances remained the main commodities of Chinese exports to Ukraine, the export volume of textiles also increased. In terms of imports, imports of chemical products have increased significantly, indicating that Ukraine's demand for high value-added chemical products is increasing year by year.

In addition, through the analysis of the proportion of exports and imports, it can be found that in recent years, Ukraine's exports to China are basically stable at about 50%. This stable proportion relationship indicates that China and Ukraine are highly interdependent in trade cooperation, and also reflects the deep development of foreign trade cooperation between the two countries under the framework of the Belt and Road Initiative.

In general, driven by the Belt and Road Initiative, China-Ukraine foreign trade cooperation has not only achieved significant growth in trade volume, but also shown complementarity and diversification in trade structure (table 1). This has laid

a solid foundation for further deepening China-Ukraine economic and trade cooperation and promoting the common economic development of the two countries.

Table 1

**Trade volume and composition between China and Ukraine over the years
(US \$10,000)**

Year	Total export-import volume	Exports to China	Imports from China	Trade surplus	Exports	Ukraine mainly exports Chinese goods	Ukraine mainly imports Chinese goods
2015	707151.1	355579.8	351571.3	4008.5	50.2%	Mechanical equipment and electrical appliances Mechanical equipment, textiles	Agricultural products, metal ore, chemical products
2016	671102.4	249079.5	422022.9	-172943.4	37.1%		
2017	738028.7	233964.2	504064.5	-270100.3	31.7%		
2018	966353.2	264503	701850.2	-437347.2	37.7%		
2019	1190858.4	450900.9	739957.4	-289056.5	37.8%		
2020	1487976.2	800175.2	687801	112374.2	53.7%		
2021	1917889	977446	940443	37003	50.9%		
2022	764391	434923	329468	105455	56.9%		

Source: compiled by the author based on [5]

The Ukraine crisis has seriously affected the important layout of China's "Belt and Road Initiative in the Eurasian continent. Ukraine is located in the center of the Eurasian continent and is the intersection point of transit transport lines. Its geographical advantages are crucial to the implementation of the "One Belt One Road" initiative [1]. However, the Ukraine crisis has brought trade between China and Ukraine to a standstill, affecting previous cooperation projects in areas such as infrastructure construction and modern agriculture. This has not only directly hindered the deepening of trade and investment between China and Ukraine, but also

disrupted the overall layout of the "One Belt One Road Initiative" on the Eurasian continent. As an important country along the Belt and Road, Ukraine occupies a key position in China's land route to the European market. China and Ukraine have always maintained a sound strategic partnership and accelerated the alignment of the "One Belt One Road" construction with Ukraine's domestic development strategy, which has laid a solid foundation for deepening bilateral economic and trade cooperation [6]. But the Ukraine crisis has brought the process to an abrupt halt. Ukraine's railways, roads, ports and other infrastructure were badly damaged, and the otherwise normal logistics routes were disrupted. As a result, many Chinese enterprises in Ukraine are facing the dilemma of shutdown, some enterprises are even forced to withdraw, and bilateral trade is nearly suspended.

According to the statistics of the General Administration of Customs of China, from January to July 2022, the trade volume between China and Ukraine decreased by 45.7% year on year to 6.57 billion dollars, among which China's exports to Ukraine fell by 47.6% to 5.28 billion dollars, and imports from Ukraine decreased by 38.1% to 1.29 billion US dollars^[2]. Since the outbreak of the Ukraine crisis, Ukraine's maritime ports and major inland infrastructure have been severely damaged, causing trade activity to nearly stall. As an important member of the "One Belt And One Road" initiative, Ukraine is a prominent transportation hub and plays an important role in China-Europe land-sea combined transport. However, the continuation of the crisis has not only led to the halt of bilateral trade between China and Ukraine, but also seriously hindered the advance of the Belt and Road Initiative in the European direction [1].

From the perspective of specific industries, the interruption of trade between China and Ukraine has had a direct impact on some industries in China. Taking agricultural products as an example, Ukraine is an important grain producer and exporter in the world. In 2021, its corn exports to China reached 8.39 million tons,

accounting for 29.6% of China's total corn imports. The war led to the blockade of Ukraine's ports, which seriously affected its export of agricultural products and directly affected China's grain import channels^[2]. In addition, Ukraine is also an important supplier of iron ore to China, exporting 32.73 million tons of iron ore and concentrate to China in 2021, accounting for 3.3% of China's total imports. In the wake of the war, the volatility of China's iron ore imports [1].

In addition to trade, China-Ukraine cooperation in infrastructure construction has also been hit hard. In recent years, Chinese enterprises have actively participated in Ukraine's infrastructure construction, including ports, railways, roads and other fields. However, the outbreak of the war led to the shutdown of projects under construction and the evacuation of personnel, causing heavy losses to related enterprises. According to incomplete statistics, the contract value of China Road and Bridge (Joint Stock) Co., Ltd. in Ukraine is more than 600 million US dollars, involving railways, roads, ports and other fields [3]. The stagnation of the war brought huge economic losses to enterprises and also affected the infrastructure cooperation process between China and Ukraine under the framework of the Belt and Road Initiative.

In general, bilateral trade between China and Ukraine has stalled and key cooperation projects have been interrupted, which has brought heavy losses to the economic development and business operations of both countries. As an important participant in the Belt and Road Initiative, Ukraine has an important strategic position in the economic and trade exchanges between China and Europe. However, the damage to infrastructure and trade disruption caused by the crisis have not only affected bilateral relations, but also hindered the smooth progress of the One Belt One Road initiative to a certain extent.

China-Ukraine foreign trade cooperation enjoys broad prospects. In recent years, the foreign trade cooperation between China and Ukraine has become

increasingly close, and there is huge potential for economic and trade exchanges between the two countries. In particular, the proposal of the Belt and Road Initiative has opened up new space and opportunities for China-Ukraine cooperation. Ukraine is located at the intersection of the Eurasian continent, occupying a strategic place in the "One Belt And One Road" layout. The high complementarity of the economic structure has also injected strong impetus into bilateral trade cooperation [1]. Visible from Fig.1, Ukraine maintains a very good foreign trade growth in recent years, has a good trade future, especially in 2021, the import and export trade reached a record high of \$1917889 million, in many eastern European countries, Ukraine and China's foreign trade growth most rapidly, but obviously since the war crisis in 2022, the bilateral trade decline seriously, this is most obviously affected in many eastern European countries.

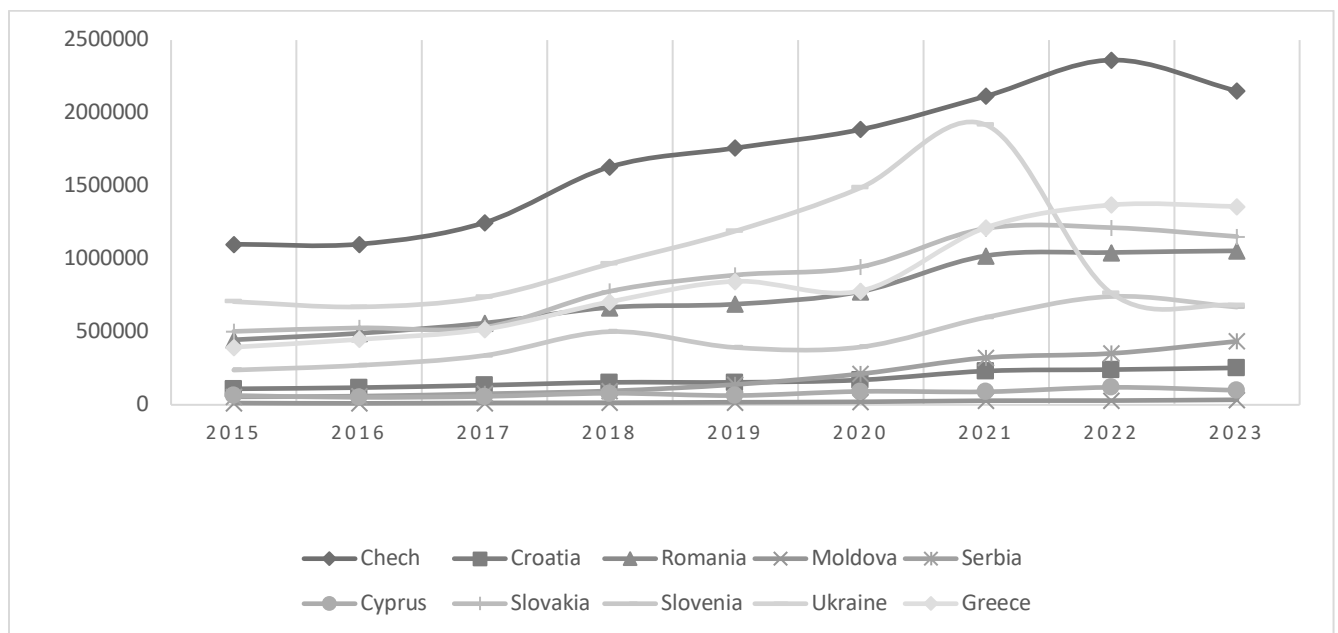


Fig. 1. Total import and export volume of Ukraine and its surrounding Belt and Road participating countries with China (US \$10,000)

Source: compiled by the author based on [5]

Despite the impact of the Ukraine crisis and the economic and trade relations between China and Ukraine have been impacted to a certain extent, the prospects of foreign trade cooperation are still broad in the long run. Ukraine has developed high-end industries such as aerospace, machinery manufacturing and shipbuilding, as well as rich mineral and agricultural resources, all of which are well complementary to China's industrial structure [1]. The "Belt and Road" initiative provides an important platform for the two sides to deepen practical cooperation, and Chinese enterprises can take advantage of this opportunity to increase investment in Ukraine, participate in Ukraine's infrastructure construction, and help Ukraine enhance its industrial competitiveness.

At the same time, Ukraine, as an important agricultural exporter, exports a large number of grain crops to China every year. In the context of the current global food crisis, strengthening agricultural cooperation between China and Ukraine is of great significance to ensuring the food security of countries along the Belt and Road [6]. China can make use of its rich agricultural technology and financial advantages to help Ukraine improve the efficiency of agricultural production, increase grain production, and assist Ukrainian agricultural products to enter the Chinese market and expand sales channels. This will not only help ease the food pressure on countries along the Belt and Road, but also provide new growth points for Ukraine's economic recovery. At the same time, Ukraine will make a great contribution to the UN 2030 vision and enhance its influence on the international stage.

In general, there is still great potential for cooperation between China and Ukraine. The "Belt and Road" initiative has opened up broad space for china-Ukraine foreign trade cooperation. The two sides should take this opportunity to deepen practical cooperation based on their respective advantages and jointly push china-Ukraine economic and trade relations to a new level. This will not only serve

the fundamental interests of the two countries, but also inject new vitality into the Belt and Road initiative.

Since the outbreak of the Ukraine crisis in February 2022, Ukraine's economy has been hit hard, and its agricultural production has also encountered great difficulties.

China can negotiate with Romania, Bulgaria and other countries to use their ports to transfer Ukraine's food, and open up the Black Sea-Mediterranean food corridor. At the same time, China should use the China-Europe freight train passing through Kazakhstan to transport its Black Sea grain to the Central Asian countries [6]. China can also sign a food purchase agreement with Ukraine to give priority to its food purchase in the post-war reconstruction, help it restore agricultural production and enhance its food supply capacity. In addition, China can make use of the "Belt and Road" agricultural cooperation mechanism to provide agricultural material assistance to Ukraine, and send agricultural experts to Ukraine to exchange advanced agricultural technologies and improve its grain yield per unit area [6]. It is foreseeable that under the guidance of the Belt and Road Initiative, China-Ukraine food cooperation has great potential and will help to push bilateral relations to a new level.

The financing channels provided by the Belt and Road Initiative can effectively improve Ukraine's infrastructure construction and further deepen the cooperation between China and Ukraine in the economic and trade fields [1].

First, the financing mechanism of the "One Belt One Road Initiative" can provide sufficient financial support for Ukraine's infrastructure construction. China has set up financial institutions such as the Silk Road Fund and the Asian Infrastructure Investment Bank to provide a long-term and stable source of funds for infrastructure development in countries along the Belt and Road. China's financing support for Ukraine through the Belt and Road Initiative can accelerate the

modernization of Ukraine's infrastructure and enhance its economic status and competitiveness in the region.

Secondly, Chinese companies can actively participate in Ukraine's infrastructure construction and bring advanced technology and management experience to Ukraine. Participating in major infrastructure projects in Ukraine will not only help improve the overall level of Ukraine's infrastructure, but also open up a vast overseas market for Chinese equipment manufacturing, engineering construction and other industries [6]. China and Ukraine can strengthen policy alignment and mutual recognition of standards in infrastructure planning, construction and operation under the framework of the Belt and Road Initiative. In the future, with the deepening of the Belt and Road Initiative, China-Ukraine infrastructure cooperation will unleash greater development potential and inject new impetus into the process of regional economic integration.

Ukraine has a superior geographical position, is at the strategic juncture of the East and the West, and plays an important pivotal role in the Belt and Road Initiative. Ukraine is one of the largest European countries, bordering Belarus in the north, Poland, Slovakia, Hungary, Romania and Moldova in the west, the Black Sea in the south and Russia in the east. It is a transportation hub connecting the Eurasian continent. Ukraine has seven important ports, which are very convenient by land, sea and air. It receives more than 100 million tons of transit cargo through Ukraine every year. Ukraine borders 14 countries, including seven EU member states, with the longest EU border [1; 6]. By strengthening cooperation with Ukraine, China can access the EU market more efficiently and easily.

Ukraine plays an irreplaceable role in the connectivity between China and Europe, Central Asia and the Middle East. The strengthened cooperation between China and Ukraine will help to open up the main transport artery for China to Europe through Central Asia, the Caspian Sea and the Black Sea. Ukraine can become a

distribution center for Chinese goods to enter the European market, or as a transit station for European goods to enter the Chinese market. After China's Belt and Road Initiative was put forward, China and Ukraine attach great importance to the synergy and cooperation of their development strategies, and Ukraine has actively responded to the Belt and Road Initiative. In 2017, the Chinese and Ukrainian governments signed the cooperation plan for the Belt and Road cooperation, making Ukraine an important country in the Belt and Road cooperation [1]. China and Ukraine should take the signing of the cooperation plan as an opportunity to formulate feasible action plans, refine key cooperation areas and cooperation projects, and push for substantive progress in the joint construction of the Belt and Road initiative.

The focus of the Belt and Road Initiative between China and Ukraine should be on building transport infrastructure and improving the connectivity of railways, highways and ports. Ukraine is an important route of land trade between China and Europe, but limited by backward infrastructure, it is far from meeting the needs of trade and transportation. Chinese enterprises can participate in the construction of the Kiev-Lviv high-speed railway project under construction in Ukraine, open up the high-speed passenger channel connecting the capital Kiev and the western gateway city of Lviv, and create conditions for connecting the European high-speed rail network in the future. China can also help build ports along the Black Sea and the Azov Sea of Ukraine to improve their handling capacity. In addition, in the field of highway construction, Chinese companies can provide Ukraine with advanced highway planning, design and construction technology to help them improve road access [1]. Through the connectivity of transportation infrastructure, we will give full play to Ukraine's geographical advantages and hub role, which will surely strongly promote China-Ukraine economic and trade cooperation.

In short, Ukraine occupies a very important strategic position in the "Belt and Road" Initiative. Fully synergizing the Belt and Road Initiative and strengthening

cooperation in infrastructure development are the key to deepening China-Ukraine economic and trade cooperation. China and Ukraine should seize the historical opportunity of jointly building the Belt and Road, carry out more fruitful practical cooperation based on their respective comparative advantages, so as to play a bigger role in the overall situation of the Belt and Road Initiative and achieve mutual benefit and common development.

With the deepening of economic and trade cooperation between China and Ukraine in priority areas, the "Belt and Road" initiative provides good opportunities for the growth of china-Ukraine trade. Bilateral trade between China and Ukraine is highly complementary in agriculture, machinery manufacturing, energy and other fields [1]. Ukraine has fertile black land and rich export potential of agricultural products, while China has advantages in agricultural technology, agricultural machinery and so on. Through the "One Belt One Road" initiative, China can provide financial and technical support for Ukraine's agricultural modernization, and help Ukraine improve its agricultural production efficiency and product quality, so as to expand the export of Ukraine's agricultural products to China [1]. At the same time, China can also import more high-quality agricultural products from Ukraine to meet the domestic market demand.

In the field of machinery manufacturing, Ukraine has advanced aerospace technology and military industry base, while China is a world leader in high-speed rail and communication equipment. The two sides can strengthen industrial cooperation under the framework of the Belt and Road Initiative, promote technological exchanges and transfer, and complement each other's strengths [1]. As shown in Fig. 2, Ukraine labor population and surrounding "area" participants, has significant advantages, in 2021, Ukraine labor population reached 20299619 people, is many neighboring countries labor population around 4 times, Chinese enterprises can take advantage of Ukraine technology and human resources, investment in

Ukraine, the production of high value-added products, enhance industrial competitiveness. Ukrainian companies can make use of China's capital and market advantages to expand their production scale and enter a broader international market.

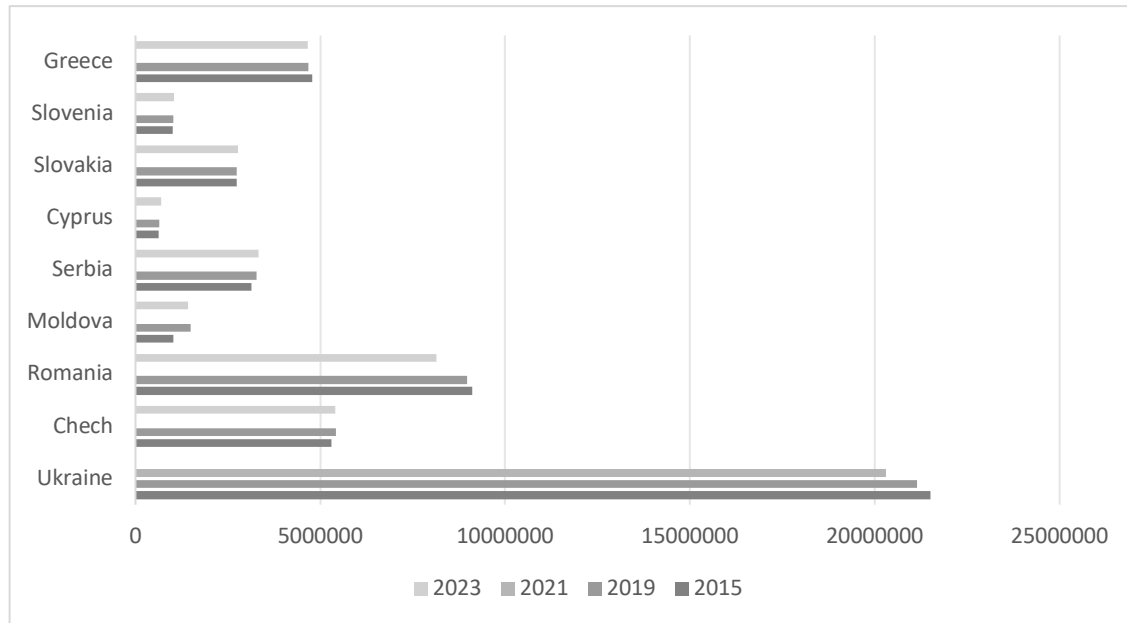


Fig. 2. Labor force population (people) of Ukraine and the belt and Road Initiative over the years

Source: compiled by the author based on [7]

In the field of energy, Ukraine is rich in traditional energy resources such as coal and natural gas, while China is in the international leading level in new energy technology and clean coal technology. Through the Belt and Road cooperation, China can provide Ukraine with advanced energy development and utilization technologies, and help Ukraine to improve its energy efficiency and reduce environmental pollution [1]. At the same time, China can also import more high-quality energy products from Ukraine to ensure its domestic energy security. The two sides can also cooperate in the field of new energy, jointly develop renewable energy projects such as wind and solar energy, and promote the optimization and upgrading of the energy mix.

In addition, China and Ukraine can also carry out multi-level and wide-ranging cooperation in infrastructure construction, financial services and cultural tourism. By jointly building a modern industrial park, the two sides can provide better platforms and conditions for enterprise cooperation and attract more enterprises to participate in the construction of the Belt and Road Initiative [1]. Chinese financial institutions can provide more financing support to Ukraine to help it improve its investment environment and defuse its debt risks. The two sides can also strengthen people-to-people exchanges, promote cultural and tourism cooperation and enhance friendship to the people.

In short, the "Belt and Road" initiative has provided broad space and development opportunities for China-Ukraine economic and trade cooperation. The two sides should seize the opportunity, give full play to their respective strengths, deepen practical cooperation in priority areas such as agriculture, manufacturing and energy, and upgrade trade and investment. At the same time, the two sides should also actively expand new areas of cooperation, innovate models of cooperation, and achieve mutual benefit and common development. It is believed that through the Belt and Road Initiative, the economic and trade relations between China and Ukraine will surely reach a new level and bring more benefits to the two peoples.

As an important participant in the Belt and Road Initiative, Ukraine has a sound industrial base and human resources advantages. Actively promoting the joint construction of modern industrial parks in Ukraine is an important opportunity for China and Ukraine to deepen industrial cooperation. As shown in Fig.3., compared with neighboring countries, Ukraine's industrial added value accounts for a very low proportion of GDP, maintaining at about 20% all the year round. In 2022, its industrial added value accounted for only 19.24% of GDP, which is 10 percentage points lower than that of the leading countries Romania and Poland [9]. As a regional power, Ukraine is in urgent need of rapid industrial development. In recent years,

the Ukrainian government has actively participated in the "Belt and Road" initiative and is committed to promote the modernization of its entire industrial categories. China is the country with the most complete industrial categories in the world and the most successful industrialization process in the past half century. China and Ukraine have great space for cooperation in the development of industrialization.

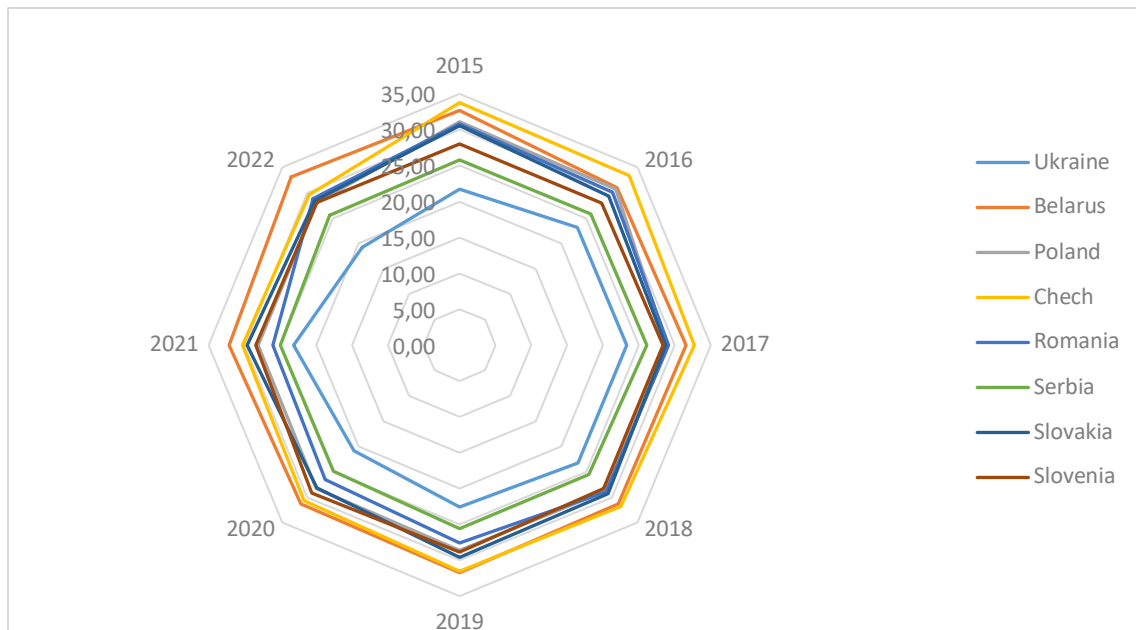


Fig. 3. Over the years, the industrial added value of Ukraine and its surrounding "Belt and Road" participating countries in the GDP is (%)

Source: compiled by the author based on [7]

The construction of the China-Ukraine Industrial Park aims to promote in-depth cooperation in equipment manufacturing, new materials and electromechanical integration, and is committed to building a new model of coordinated development of the industrial chain between China and Ukraine [6]. The industrial park will focus on introducing leading enterprises in China's equipment manufacturing, new materials, mechatronics and other fields, and attract a number of local supporting enterprises to enter the park, forming an upstream and downstream industrial chain, and creating a demonstration platform for the deep

integration of "Made in China" and "Intelligent manufacturing in Ukraine". The park will also give full play to the complementary advantages of the two countries, and promote the effective docking of China's technology, equipment and management experience with Ukraine's resources, talents and market advantages, so as to achieve mutual benefit and win-win results [1].

Specifically, the construction of the industrial park will focus on high-end equipment manufacturing, new materials, electromechanical integration and other key areas. In the field of high-end equipment manufacturing, we will focus on introducing China's leading enterprises in construction machinery, agricultural machinery, electric power equipment and other fields, and promote all-round cooperation with Ukrainian enterprises in manufacturing and technology research and development. In the field of new materials, we will focus on introducing China's industry leaders in special alloys, functional ceramics, polymer materials and other aspects, and promote the local layout of key links in the industrial chain such as raw material processing and product manufacturing in Ukraine. In the field of mechatronics, we will focus on introducing Chinese leading enterprises in industrial automation, intelligent manufacturing, robotics and other aspects to help realize the transformation and upgrading of Ukraine's manufacturing industry. In addition, the park will also vigorously develop modern service industry, focusing on the introduction of logistics, finance, research and development, testing and certification and other supporting institutions, to provide enterprises with quality and efficient service support for enterprises. By creating a three-dimensional development pattern of "hardware + software", "online + offline" and "headquarters + base", the park will become an innovation highland to drive the deep industrial integration of China and Ukraine and enhance the industrial competitiveness.

The modern industrial park jointly built by China and Ukraine is an important platform for promoting production capacity cooperation under the framework of the

Belt and Road Initiative, which is of great significance to deepening practical cooperation between the two countries and achieving mutual benefit and win-win results. The construction of the industrial park will not only help China's advanced production capacity and high-quality equipment to go global, and help Ukraine's industrial transformation and upgrading, but also set an example of production capacity cooperation for countries along the Belt and Road, and contribute to the building of a community with a shared future for mankind.

Ukraine covers an area of 603,700 square kilometers, which is rich in land resources and has a high degree of agricultural modernization. The characteristics of Ukrainian agriculture include: fertile land, black soil for 44% of the total area, soil organic matter content up to 4% -6%; abundant photothermal resources, annual sunshine time of 2200-2400 hours, plant growth period of 180-200 days; abundant precipitation, annual average precipitation of 400-650 mm. Under these natural advantages, Ukraine is self-sufficient in grain, ranks first in the world in grain output, and is one of the major exporters of agricultural products [6].

As shown in Fig.4., over the years the added value of Ukrainian agriculture GDP proportion perennial remain high in many eastern European countries, the added value of agricultural GDP in perennial above 10%, is the Czech Republic, Slovakia, Romania, Slovenia and other countries 3 to 5 times, as an agricultural power, the agricultural plays a very important role in the gross national product, agricultural development potential is huge.

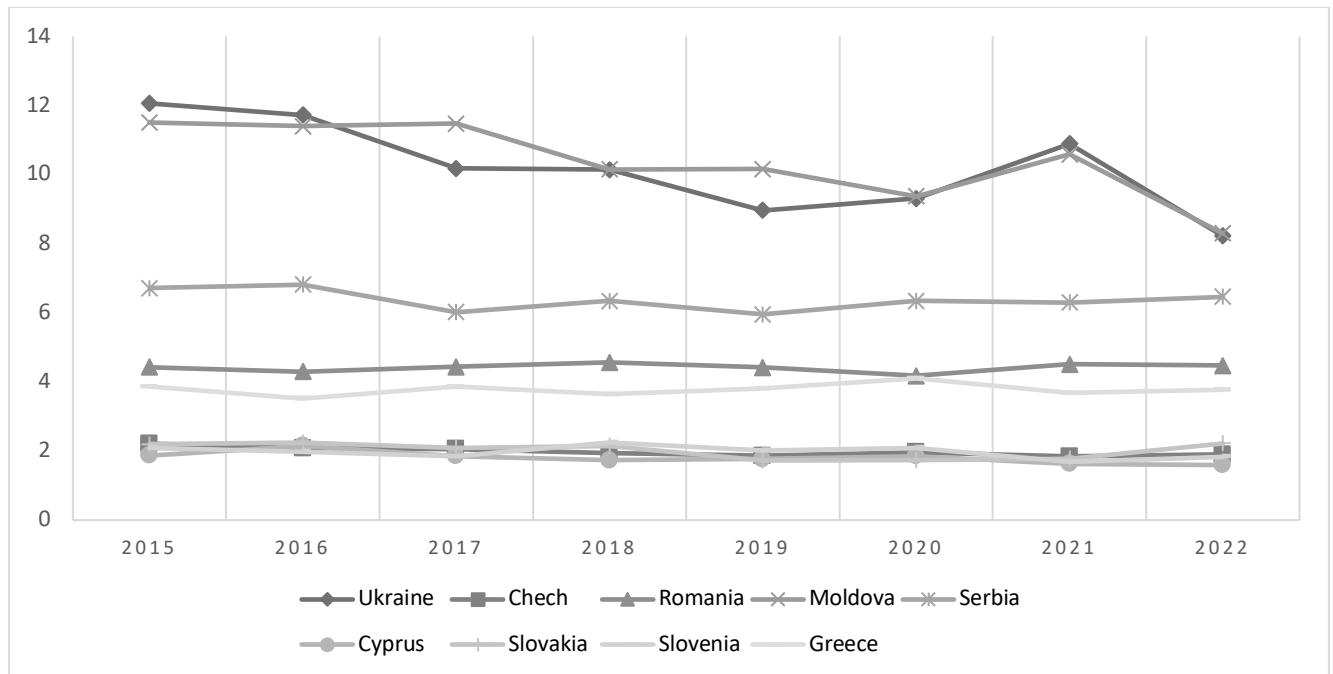


Fig. 4. Over the years, the agricultural added value of Ukraine and its neighboring participating countries accounted for GDP (%)

Source: compiled by the author based on [7]

In 2021, Ukraine's total grain production reached 80.75 million tons, including 32.9 million tons of wheat, 9.6 million tons of barley and 40.2 million tons of corn. Wheat and barley production ranked seventh in the world and fifth in corn production. Ukraine exported 32.53 million tons of grain, accounting for 12 percent of global grain exports, making it the world's fourth largest grain exporter. However, there is still a big gap between Ukraine and that of Western European countries. In 2021, the yield of wheat, barley and corn in Ukraine was 4.65 tons / ha, 4.16 tons / ha and 7.54 tons / ha respectively, while the yield of French wheat, barley and corn was 7.14 tons / ha, 6.36 tons / ha and 8.84 tons / ha respectively [9]. It can be seen that Ukraine has improved agricultural output by introducing advanced agricultural technology and increasing agricultural input.

China has advanced agricultural technology and rich experience in agricultural investment, while Ukraine has high-quality land resources and

agricultural foundation, showing huge potential for agricultural cooperation between the two countries. On the one hand, China can exchange advanced agricultural planting, irrigation and mechanization technology to improve the efficiency of Ukrainian agricultural production; on the other hand, Chinese enterprises can invest in modern farms in Ukraine to promote the upgrading of Ukrainian agricultural industry [6].

In the process of promoting China-Ukraine agricultural cooperation, it is necessary to respect Ukrainian sovereignty, abide by relevant laws and regulations of Ukraine, pay attention to domestic changes in Ukraine and prevent political risks; pay attention to environmental protection and avoid to cause damage to the ecological environment in Ukraine; strengthen communication and coordination with Ukraine and establish a mutually beneficial cooperative relationship. As long as the two sides follow the principle of equality, mutual benefit and common development, China-Ukraine agricultural cooperation will surely produce fruitful results and set an example for the "One Belt And One Road" agricultural cooperation.

Conclusions. From the perspective of the "One Belt and One Road" initiative, this paper discusses the current situation, opportunities and challenges of foreign trade cooperation between China and Ukraine. Through the statistical analysis of the bilateral trade data between China and Ukraine from 2015 to 2023 (some data are missing), it is found that the total trade volume of the two countries shows a trend of increasing fluctuation, and the trade structure between China and Ukraine is highly complementary, which lays a good foundation for the deepening of trade cooperation between the two sides.

However, China-Ukraine trade and economy still faces many challenges. War conflict is one of the important factors affecting bilateral trade. After the outbreak of the Ukraine crisis, the domestic situation in Ukraine was in turmoil, the economy fell into recession, the trade volume with China declined sharply, and the

economic risks cannot be ignored. In addition, backward infrastructure, poor investment and financing channels, and imperfect legal system and other factors also restricted the in-depth development of China-Ukraine economic and trade cooperation to some extent.

Nevertheless, the Belt and Road Initiative has brought new opportunities for China-Ukraine economic and trade cooperation. Ukraine is located at a key node of the Eurasian Land Bridge, with prominent geographical advantages and plays a unique role in the construction of the Belt and Road Initiative. Under the framework of the Belt and Road Initiative, China-Ukraine foreign trade cooperation has great potential and broad prospects. The two sides should seize the historical opportunity, focus on unimpeded trade, focus on production capacity cooperation, deepen practical cooperation in an all-round way, build a strategic partnership of mutual benefit and common development, and make positive contributions to the building of a community with a shared future for mankind.

References

1. Zhu Haihua. (2023). Global food supply chain security under the Ukrainian crisis - based on the analysis of countries along the "Belt and Road". *Russian Eastern European and Central Asian Studies*. URL: <https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLA ST2023&filename=EAST202305003&uniplatform=OVERSEA&v=FC8Dzup2IV kZRmH5CYjZjAH3Z0g1n6WX5P1Rt4yMP1PwL72wBf8JK2z8pl-6-2hP> (access date: 20.01.2025).
2. Kailong. (2023). Research on Countermeasures of Sino-Uzbek Economic and Trade Cooperation. *Harbin. Harbin Normal University*. URL: <https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CMFD&dbname=CMFDT EMP&filename=1024011167.nh&uniplatform=OVERSEA&v=RS9N4lt812avFfxt>

UIUKgFdAgIC1zdVLnCVLk4bqIDf9pd16-1S06TY25ehTyAa0 (access date: 20.01.2025).

3. Zhang Yicheng, Zhou Xingyu (2022). Exploration of trade between China and Ukraine under the "Belt and Road" initiative. *China Business Review*. URL: https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLA ST2022&filename=ZGSM202205023&uniplatform=OVERSEA&v=9C6tSxVQyz I9Ugi2IrNvuHXgexO2s6zHULAwXGi2iuPvJ3yOJF_MjDjWvpwlqz5H (access date: 20.01.2025).

4. Yao Chenmin, Wang Yun, Xu Xingkai. (2021). Analysis on the development trend and countermeasures of China-Uzbekistan agricultural product trade under the "Belt and Road" initiative. *Journal of Hebei Agricultural University* (Social Science Edition). URL: https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLA ST2021&filename=HBND202102005&uniplatform=OVERSEA&v=A2ss-c0W6FVm6-cMjMjFOP1Wnq7UTefIM4nqQMzSA4ZJH-pmBOdC2Dyo_l3stUWh (access date: 20.01.2025).

5. Belt and Road Portal. URL: <https://www.eng.yidaiyilu.gov.cn/> (access date: 20.01.2025).

6. Dong Yunqi, Shi Junhong. (2020). Research on Sino-Kazakhstan agricultural industry cooperation under the "Belt and Road" Initiative". *Journal of Inner Mongolia University of Finance and Economics*. URL: <https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLA ST2021&filename=NMCJ202001004&uniplatform=OVERSEA&v=Y0TN0Ovm-vV5IzeGpnGectSiLcfD-bIfzT2VPAzeTmq3m6KXUXXw6ISUmApXvXyg> (access date: 20.01.2025).

7. The World Bank. URL: <https://www.worldbank.org/ext/en/home> (access date: 20.01.2025).

8. Wang Xia, Su Shijie. (2023). The effectiveness, problems and countermeasures of China-Europe Express in promoting high-level opening up. *Statistics and Management*. URL:

https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLST2024&filename=TNGL202308011&uniplatform=OVERSEA&v=W3YSfRozXYRazy1fSI83EGDDcCMVp8AYtGK53119bqOlehua_BnJBRZy2SuBKrgZ (access date: 20.01.2025).

9. Yan Shaojun. (2022). The impact of the Ukrainian crisis on the "Belt and Road" and China's response. *Globalization*. URL:

https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLST2022&filename=QUQH202205010&uniplatform=OVERSEA&v=25JyCwTnXxFBm6SXd0iFpw8RBzE-I7ADD_qDKLIsdm0hQUaVqv4boqNUtp9YbHzI (access date: 20.01.2025).