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Directions for optimizing China–Ukraine economic cooperation

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Abstract. *The article explores the current state and strategic prospects for optimizing economic cooperation between China and Ukraine amid postwar reconstruction and macroeconomic shifts. The authors analyze the dynamics of bilateral trade in goods over the baseline (2016–2020) and shock (2021–2023) periods, evaluating the impact of military actions on Ukraine's export capacity and logistics. Key sectors of industrial complementarity are systematically identified, including agriculture, energy, transport infrastructure, and municipal utilities.*

Utilizing the RDNA4 framework, the structural damage and financial needs for recovery are assessed. A comprehensive three-phase rolling roadmap is proposed to optimize economic interaction, focusing on macro-risk mitigation, private capital mobilization, and alignment with EU standards and green regulations.

Keywords: *China-Ukraine cooperation, bilateral trade, investment, RDNA4, economic recovery, industrial complementarity.*

Напрями оптимізації китайсько-українського економічного співробітництва

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Анотація: *У статті досліджено стратегічні напрями та інструменти оптимізації економічного співробітництва між Китайською Народною Республікою та Україною в умовах післявоєнного відновлення, макроекономічних зсувів та безпекових викликів. Актуальність теми зумовлена необхідністю перебудови двосторонніх економічних відносин з урахуванням євроінтеграційного поступу України та руйнування традиційних логістичних ланцюгів. Методологічну основу дослідження становить*

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комплексний статистичний та порівняльний аналіз даних Головного митного управління КНР, бази даних Світового банку WITS та платформи UN Comtrade. Для об'єктивної оцінки структурних збитків та інвестиційних потреб української економіки застосовано матричний підхід на основі останнього звіту Світового банку про швидку оцінку завданої шкоди та потреб відновлення (RDNA4). Результати аналізу свідчать, що протягом базового періоду (2016–2020 рр.) двостороння торгівля демонструвала стійке зростання, досягнувши рекордних 14,67 млрд доларів США, причому Україна мала чітку порівняльну перевагу у постачанні аграрної та мінеральної сировини. Проте шоковий період (2021–2023 рр.) виявив глибоку асиметрію: український експорт до Китаю стрімко скоротився через блокування портів та руйнування інфраструктури, тоді як імпорт китайських товарів зберіг високу стабільність завдяки залежності внутрішнього попиту. У роботі систематизовано ключові галузеві взаємодоповнюваності в агропромисловому комплексі, енергетиці, транспорті та житлово-комунальному господарстві, а також ідентифіковано критичні бар'єри для інвестицій, зокрема високі фінансові ризики, брак довгострокового страхування та необхідність відповідності екологічним стандартам ESG та регуляторним правилам Європейського Союзу. Практична цінність отриманих результатів полягає у розробці структурованої триетапної дорожньої карти економічної взаємодії на період до 2034 року. Перший етап (2026–2027 рр.) передбачає реалізацію пілотних проєктів децентралізованої генерації, розподілених систем зберігання енергії та префабрикованого зеленого житла, що базуються на експорті китайських технологій за умови створення місцевих робочих місць. Другий етап (2027–2030 рр.) фокусується на масштабній реконструкції транспортних коридорів та глибокій переробці агропродукції. Третій етап (2030–2034 рр.) спрямований на повну цифровізацію ланцюгів постачання та інтеграцію спільних підприємств у

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європейські виробничі мережі. Запропонована модель дозволяє ізолювати макроекономічні ризики та залучати приватний капітал під багатосторонні гарантії, забезпечуючи високу прозорість та відповідність міжнародним стандартам аудиту.

Ключові слова: *китайсько-українське співробітництво, двостороння торгівля, інвестиції, RDNA4, економічне відновлення, промислова взаємодоповнюваність*

Problem statement. The escalation of global geopolitical tensions and unprecedented security shocks have fundamentally disrupted traditional patterns of the international division of labor, forcing a critical reassessment of bilateral trade corridors. Amidst these macroeconomic shifts, the optimization of economic interaction between China and Ukraine during the post-war reconstruction period emerges as a vital condition for restoring supply chain resilience, yet it faces unresolved institutional and risk-mitigation barriers. To address these challenges for policymakers and corporate decision-makers, we focus on three core questions: why China-Ukraine economic cooperation must be optimized, where it should be optimized, and how to achieve this through implementable projects. The focus remains on macro risks, industrial complementarity, mechanism design, and project portfolios to form an actionable cooperation roadmap. In this study, the 2016–2020 period is treated as a quasi-pre-war baseline, while 2021–2023 is analyzed as a shock and adjustment period to avoid misinterpreting structural breakpoints as cyclical fluctuations.

Analysis of recent research and publications. The theoretical foundations of multilateral institutions in international trade and the historical evolution of the international division of labor are extensively covered in the works of G. Maggi and W. Zhou. Global value chains, development, and their impacts on emerging economies are elucidated in studies by G. Gereffi. Issues concerning foreign direct

investment, innovation capacity, and sustainable development within global initiatives have been explored by K. Reddy, S. Sasidharan, N. Doytch, as well as B. Wang, S. Gong, and Y. Yang. Contemporary frameworks of trade geography and spatial models are analyzed by J. He and H. Li. The specific context of the investment climate and official institutional guidelines for bilateral interaction are captured in the handbooks of the Ministry of Commerce of the PRC, World Bank databases (specifically WITS), and Ukraine's Rapid Damage and Needs Assessments (RDNA). Additionally, trade facilitation indexing and Ukraine's macroeconomic recovery have been investigated by E. Moïsé, O. Nivievskyi, and T. Bogdan. However, rapidly evolving geopolitical and security factors necessitate the adaptation of existing theoretical approaches into applied roadmaps for optimizing economic interaction.

Highlighting previously unresolved parts of the overall problem. Despite the extensive academic coverage of global value chains and bilateral trade frameworks, several critical gaps remain unresolved regarding China-Ukraine economic relations under unprecedented structural shocks.

First, existing literature primarily focuses on macroscopic, descriptive analyses of historical trade volumes or abstract geopolitical concepts, failing to provide an applied, project-based mechanism capable of transforming general «cooperation willingness» into structured, bankable project pipelines.

Second, while current post-war reconstruction frameworks, such as the World Bank's RDNA, offer detailed macro-level damage and needs assessments, they do not systematically integrate these sector-specific financial needs with concrete phased roadmaps that simultaneously align bilateral investments with European Union regulatory mandates and green standards.

Finally, there is a distinct lack of research addressing the operational alignment between Chinese enterprises' tightening risk management (driven by domestic fiscal and demographic constraints) and Ukraine's immediate need to

mobilize private capital through multi-layered risk-isolation and compliance frameworks. This study addresses these gaps by shifting the focus from simple trade expansion to an institutionalized, phased rolling model of economic interaction.

Research objective. The objective of this article is to substantiate strategic directions and develop a practical three-phase rolling roadmap for optimizing China-Ukraine economic cooperation amid macroeconomic risks, security shocks, and the necessity to align investment projects with green standards and European Union market regulations.

This study employs comparative and statistical analysis to evaluate the dynamics of trade in goods by contrasting the baseline and shock periods. Structural-logical modeling and situational analysis are also applied to identify sectoral industrial complementarities and operational barriers to cooperation, drawing on reports from the World Bank and the Ministry of Commerce of the PRC.

Main results of the research. During the baseline period of 2016–2020, bilateral trade in goods continuously expanded, with its total value rising from USD 6.70 billion to USD 14.67 billion. In 2020, the Ministry of Commerce's handbook highlighted this milestone (around USD 14.7 billion) as "bucking the trend and reaching a record high." Structurally, China's imports from Ukraine in 2020 (USD 7.79 billion) grew substantially faster than its exports to Ukraine (USD 6.88 billion), indicating that Ukraine maintained a phased comparative advantage in supplying resources and agricultural products to China.

The shock period (2021–2023) demonstrated that Ukraine's exports to China plummeted sharply after peaking at USD 7.992 billion in 2021, stabilizing at around USD 2.4–2.5 billion in 2022–2023. Conversely, Ukraine's imports from China reached USD 10.638 billion in 2021, dipped to USD 8.659 billion in 2022, and rebounded to USD 10.442 billion in 2023. These statistics reveal two critical insights: first, the war's disruption of Ukraine's export capacity and accessible logistics is far more severe than its impact on import-dependent domestic demand.

Second, the resilience of Ukraine's trade with China is strictly bounded by the security of logistical channels, payment and insurance arrangements, and the availability of critical infrastructure.

Table 1

China-Ukraine Trade in Goods (Baseline vs. Shock Period)

(Unified data from WITS/UN Comtrade and China Customs, measured in USD 100 million)

Year	Total Bilateral Volume (China Measure)	China's Export to Ukraine	China's Import from Ukraine	Ukraine's Export to China (WITS	Ukraine's Import from China (WITS)
2016	67.0	42.2	24.9	—	—
2017	73.8	50.4	23.4	—	—
2018	96.7	70.2	26.5	—	—
2019	119.1	74.0	45.1	—	—
2020	146.7	68.8	77.9	—	—
2021	—	—	—	79.92	106.38
2022	—	—	—	24.90	86.59
2023	—	—	—	24.06	104.42

Source: Compiled and calculated based on statistical data from the General Administration of Customs of China, the Ministry of Commerce of the PRC, and the World Bank WITS database.

In terms of commodity structure, China's exports to Ukraine are concentrated in electromechanical, mechanical, and electrical sectors, machinery, toys, vehicles and parts, plastic products, footwear, furniture, chemicals, and steel products. China's imports from Ukraine are concentrated in mineral slag, cereals, animal and vegetable oils, steel, fodder raw materials, wood, and milling industry products. This structure dictates a realistic path for optimizing cooperation: short-term «recovery demand» is focused on restoring energy, transport, housing, and municipal services (meeting Ukraine's immediate needs), while in the medium term, resource and agricultural exports must be modernized from raw materials to value-added processing to reduce sensitivity to commodity price fluctuations and freight rates. In the long term, the restructuring of industrial systems and supply chains must revolve around EU standards and green transformation.

Official statistics from the Ministry of Commerce of the PRC indicate that as of 2020, China's direct investment in Ukraine stood at USD 21.06 million, with an accumulated stock of approximately USD 190 million. Ukraine's investment in China amounted to about USD 110 million. Around 60 Chinese companies operated in Ukraine, primarily in communications, electronics, infrastructure, agriculture, and manufacturing. In the engineering contracting sector, Chinese enterprises signed 106 new contracts in Ukraine in 2020 totaling USD 2.136 billion, with a turnover of USD 666 million. Despite the existence of an "engineering capacity + local operation" foundation, investment volumes remained shallow due to a lack of medium- and long-term financing and risk mitigation frameworks. Bilateral institutional agreements (investment protection, double taxation avoidance, customs cooperation, and a RMB 15 billion / UAH 62 billion currency swap agreement from 2018) provide a functional framework, but under wartime conditions, they require modernization with an emphasis on compliance control, procurement transparency, ESG, and anti-money laundering.

Table 2

Comparison of Industrial Complementarity and Cooperation Barriers between China and Ukraine

Industry / Sector	Complementarity (Alignment of demand, supply, and capabilities)	Key Barriers to Cooperation (Issues requiring resolution)
Grain, Oilseed, and Feed Chain	Ukraine possesses advantages in cereals, oilseeds, and primary processing; the Chinese market offers large capacity and stable demand for feed products.	Security and cost of logistical channels, damage to ports and warehouses, landmine contamination of farmland, inadequate insurance, contract execution and payment risks.
Mineral and Metallurgical Raw Materials	Ukrainian mineral sands and related resources serve as a supplementary supply source; China possesses equipment, engineering, and deep processing capabilities.	Security of origin locations, stability of power supply, environmental compliance and licensing, alignment with EU market rules, financing terms, and political risk insurance.
Energy and Power Grids	Ukraine's reconstruction needs are massive; China holds scale and cost advantages in power transmission/transformation	Continuous infrastructure attacks and asset damage risks, grid standard alignment with EU requirements, key equipment

	equipment, energy storage, photovoltaic/wind equipment, and EPC contracting.	supply compliance, uncertainty in tariff collection and pricing mechanisms.
Transport and Logistics	Reconstruction needs in Ukraine's transport sector are paramount; China has extensive experience in constructing railways, highways, bridges, ports, and digital logistics.	Engineering insurance and financing gaps, public procurement transparency mandates, cross-border customs clearance, track gauge differences, construction safety, and personnel management.
Housing and Municipal Utilities	Demand for housing represents the largest reconstruction expense; China possesses industrial capabilities in prefabricated green buildings, urban infrastructure, water supply, and heating modernization.	Land use and planning constraints, community participation and social acceptance, environmental and quality standards ("green" metrics), long-term operation, maintenance, and fee collection mechanisms.
Manufacturing and Industrial Chain	Ukraine aims to restore employment and industrial potential; China can achieve partial chain relocation via the "manufacturing in Ukraine + EU market" model.	EU regulations and rules of origin requirements, investment protection and dispute resolution, supply chain financing, and settlement continuity.
Digital Economy and Supply Chain Overhaul	Ukraine possesses an established IT foundation and a demand for digital governance; China holds mature technologies in digital infrastructure and platform supply chains.	Data compliance, network security, cross-border payments, identity authentication standards, system interoperability, and management governance rights.

Source: Summarized by the authors based on the Guide for Outward Investment and Cooperation (Ukraine) and World Bank databases.

Ukraine's economic risks include the cascading effects of security shocks, asset damage, and external financial constraints. As of December 31, 2024, reconstruction and recovery costs over the next decade are estimated at USD 524 billion (2.8 times the nominal GDP of 2024), with direct damages reaching USD 176 billion. According to the trend, Ukraine's GDP stood at USD 156.62 billion in 2020, rose to USD 199.77 billion in 2021, fell to USD 161.99 billion in 2022, and partially recovered to USD 181.22 billion in 2023. Commodity exports were USD 60.8 billion (2020), USD 81.3 billion (2021), USD 57.4 billion (2022), USD 51.1 billion (2023), and are estimated at USD 56.1 billion for 2024. Damage to the transport system and municipal utilities imposes high transaction costs across the economy.

In terms of infrastructure, the damage to transportation and municipal systems is not only a «loss of asset stock», but also a rise in transaction costs for the whole society through logistics costs, delivery uncertainty and supply chain disruptions. RDNA4 shows that the long-term reconstruction and recovery needs of the transportation sector are about $78 billion, second only to housing. This kind of demand has the characteristics of «strong publicity and large externality», which is difficult to cover by relying solely on market capital, and must rely on multilateral funds, public budgets and risk guarantees.

In terms of energy, RDNA4 pointed out that the damaged assets in the energy sector increased by 70% compared with RDNA3, involving key links such as power generation, transmission, distribution and central heatingThe long-term demand for the energy and extractive sector is about $68 billion. This fact means that even if other industries are willing to recover, the instability of power and heat supply will still become a «system bottleneck» for industrial resumption, residents' livelihoods and foreign investment. At the same time, energy facilities, as potential targets, will significantly increase the insurance cost and capital cost of the project, forcing the cooperation mechanism to introduce layered risk pricing and stronger political risk insurance. In terms of industry and commerce, RDNA4 lists commercial and industrial sector needs at more than $64 billion. This segment includes both plant and equipment rehabilitation, as well as SME recovery, supply chain and market reconstruction. The key risk is that if only assets are repaired without restructuring orders, energy and logistics security, financing and insurance support, industrial recovery will remain in a state of low production capacity and inefficiency for a long time, and it is difficult to form a sustainable tax base. In agriculture, RDNA4 shows that the long-term demand in the agricultural sector exceeds $55 billion. Agricultural risks come not only from damage to infrastructure and storage ports, but also from demining, land accessibility, input supply and price fluctuations. Due to Ukraine's important position in the global grain and oilseed market, agricultural recovery and

the reconstruction of logistics channels are directly related to its foreign exchange earnings and macro stability. In terms of human capital, war brings the risk of population migration, declining labor supply and skills mismatch. Although the RDNA4 press release does not provide a full statement of human capital losses in the same paragraph, it lists education and health as a 2025 priority area and emphasizes that recovery should invest in decent employment, education, health care and inclusion for vulnerable groups. This suggests that human capital repair and job creation should be designed as «hard constraint KPIs» for projects, rather than incidental benefits. In terms of finance and finance, RDNA4 disclosed that the government and donors have allocated $737 million for priority areas in 2025, but there is still a financing gap of $996 million in 2025. This means that short-term fiscal space is limited, and without replicable financing tools (e.g., guarantees, blended finance, sustainable infrastructure funds), reconstruction will face the typical funding misallocation of «large project reserves and insufficient projects to start».

These trends put forward clear constraints on the direction of cooperation, expanding trade alone will not automatically drive macro recovery, and must give priority to supporting the «bottleneck links» of export capacity recovery (energy, logistics, warehousing, financing and insurance), and promote the migration of exports to higher value-added links to reduce dependence on a single bulk category and freight rate.

There are also economic risks both externally and internally in China, with the World Bank pointing out in its December 2025 China Economic Update that «trade policy uncertainty still exists» and emphasizing that export growth is supported but may slow down in the future The total GDP continued to expand, and the growth rate showed a «V-shaped-falling-stable» structure, shifting from «high-speed growth» to «medium-high speed + high-quality development».

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For enterprises, this means that if overseas projects lack compliance and risk isolation arrangements, they are very likely to suffer «non-commercial shocks» in sanctions, financial settlement, insurance, and supply chains. At the level of cooperation mechanisms, stricter counterparty due diligence, sanctions and export control compliance reviews, and enforceable force majeure and risk sharing clauses in contracts need to be introduced.

In terms of supply chain and industrial chain security, China's promotion of «dual carbon» and high-quality development has led to stricter energy consumption and carbon emission constraints on some high-energy-consuming, high-emission and high-risk supply chains. At the same time, the uncertainty of overseas supply has increased the strategic value of key raw materials, food and energy security.

Therefore, if cooperation with Ukraine is positioned as a combination of «stable supply + local processing + green upgrading», it will be more in line with China's long-term interests under supply chain security and green constraints. In terms of finance and local finance, the World Bank pointed out that local fiscal space has tightened due to weakening land transfer income and rising debt, and some local governments are facing financing constraints; He also pointed out that even if the level of local government debt on the book is «moderate», it has still risen by more than 15 percentage points since 2020. This will reduce the risk appetite of China's local platforms for foreign investment and increase the intensity of financing review. Projects in Ukraine must form an auditable cash flow and risk mitigation structure to obtain long-term financial support in an environment where Chinese financial institutions tend to be cautious. In terms of industrial structure and domestic demand, the World Bank emphasized that household consumption is still cautious, and the cooling of the real estate market has brought about a wealth effect. At the same time, it is proposed that policies should focus on boosting domestic demand and dealing with structural headwinds. This means that Chinese companies need to pay more attention to the certainty of payment collection and risk capital occupation of

overseas projects, and avoid using low-certainty projects as a short-term growth hedge. In terms of population and long-term growth, data from the National Bureau of Statistics of China shows that the national population decreased by 850,000 at the end of 2022 compared with the end of the previous year, and the population will continue to decline in 2023. Demographic changes affect long-term growth potential through labor supply, savings-investment structures, and social security spending. Cooperation with Ukraine should adopt more of the model of «technology and capital export + local job creation», reduce dependence on expatriate labor, and strengthen the social acceptance and long-term operation capacity of projects. In terms of environmental and green constraints, China has issued the Action Plan for Carbon Peaking by 2030, emphasizing the systematic carbon reduction path from energy conservation management, key projects to key industry transformation; At the same time, the official explained that China has made a commitment to carbon peak before 2030 and carbon neutrality by 2060. Embedding cooperation with Ukraine in green buildings, clean energy, low-carbon transportation, and circular economy will make it easier to obtain policy and financial support and reduce future carbon and environmental compliance risks.

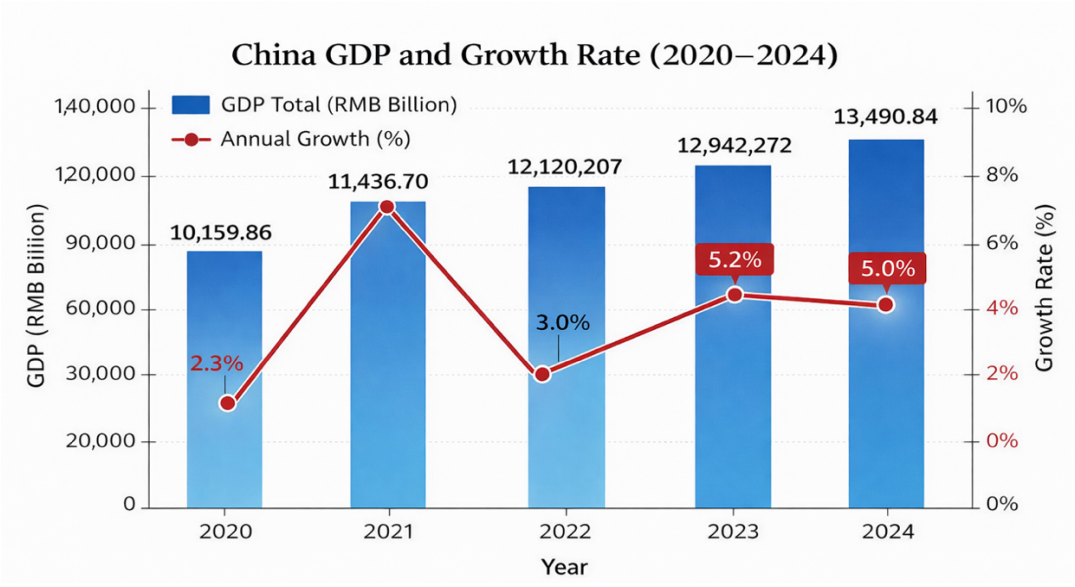

Fig. 1. Changes in China's GDP and growth rate

Source: National Bureau of Statistics of the People's Republic of China; compiled and illustrated by the author.

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Based on the above data analysis, cooperation with Ukraine needs to be institutionalized in the internal and external environment of «slowing growth and declining risk appetite» to avoid replacing medium- and long-term risk management and project quality with short-term trade expansion.

The core goal of mechanism optimization is to transform «willingness to cooperate» into a «bankable, deliverable, auditable and sustainable» project assembly line. The necessity can be demonstrated from both the demand side of Ukraine and the supply side of China. From the Ukrainian side, the scale of reconstruction is huge and highly concentrated; There is also a short-term financing gap and the need to mobilize the private sector. The RDNA4 emphasizes the vital role of the private sector in recovery and reconstruction, citing previous estimates by the International Finance Corporation that the private sector could potentially cover one-third of total demand. However, in a high-risk environment, the premise of private capital entry is that the risk can be quantified, shared, and hedged, which requires the establishment of a systematic project preparation, financing structure and guarantee insurance system. From the Chinese side, the World Bank pointed out that China needs to boost domestic demand in an uncertain external environment, while dealing with real estate adjustments and local fiscal constraints; The high savings of residents and the high proportion of housing assets also affect the release of consumption. Therefore, if cooperation with Ukraine lacks compliance + risk mitigation + cash flow closed loop , it is easy to become a risk exposure point for enterprises and financial institutions, and instead exacerbate the spillover impact of the external environment on domestic finance and industry.

For the current situation in Ukraine, in order to facilitate policy coordination and enterprise rhythm arrangement, it is recommended to adopt a «three-stage rolling promotion», and first conduct pilots in relatively safe areas and areas with rapid results. and then replicate on a large scale under the multilateral framework, and finally promote the in-depth docking of industrial upgrading with EU standards.

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This rhythm aligns with the logic of «priority investment, private sector mobilization, alignment to EU standards» emphasized by RDNA4.

To finance these needs, private sector mobilization is critical, as it could potentially cover a third of the total demand. However, domestic economic risks in China (decelerating GDP growth, local government debt constraints that rose by 15% since 2020) lower the risk appetite of Chinese financial institutions. Therefore, projects in Ukraine must features clear compliance structures, risk isolation, and auditable cash flows. Furthermore, cooperation must incorporate China's demographic shifts through a model of «exporting technology and capital + creating local jobs» alongside environmental constraints (the 2030 carbon peak target). China's GDP dynamics are illustrated in Figure 1: total GDP grew from RMB 101,598.6 billion in 2020 to RMB 134,908.4 billion in 2024, with annual growth rates of 2.3% (2020), 3.0% (2022), 5.2% (2023), and 5.0% (2024).

To execute this, a three-phase rolling deployment model for economic cooperation is proposed:

1. **Phase 1: Emergency Recovery and Pilot Projects (March 2026 – August 2027)**.

- *Resilient energy and municipal pilot projects*: Establishing decentralized energy storage microgrids for hospitals, water supply, and communications involving corporations like China Power Construction Group, Sungrow, and NPC Ukrenergo. Risk mitigation is managed via underground equipment placement and service-purchase agreements.
- *Rapid repair of logistical nodes and warehousing facilities*.
- *Establishing institutional compliance and financing frameworks*: This includes launching a joint pilot legal and compliance risk mitigation center with CIETAC.

2. **Phase 2: Large-scale Reconstruction and Recovery (September 2027 – September 2030)**.

- *Modernizing transport corridors and port capacities* (September 2027 – February 2030, 30 months): Resolving the 10 largest bottlenecks on the EU border via DBO or PPP frameworks, and automating customs procedures. Grain export stabilization through expanding river and rail hub storage (involving COFCO and agricultural associations).
- *Systematic reconstruction of housing and public services* (September 2027 – September 2030, 36 months): Constructing prefabricated green residential units in relatively secure regions (Lviv, Chernivtsi) involving China State Construction Group, alongside municipal heating grid modernization through the ESCO model involving CECEP.
- *Agricultural value-added processing and industrial parks* (September 2027 – September 2030, 36 months): Creating clusters for deep processing (oil extraction plants, feed production) involving Sinochem to increase the value-added component of Ukraine's exports.

3. **Phase 3: Modernization and Industrial Chain Overhaul (January 2030 – January 2034, 48 months per sub-program)**.

- *Clean energy and power grid modernization*.
- *Manufacturing chain upgrading and integration with EU trade*.
- *Implementing digital supply chains and green standards*: Utilizing blockchain and electronic warehouse receipts to automate trade financing in compliance with EU regulations.

China and Ukraine have joined hands to build an integrated industrial cluster of «input-processing-feed-animal husbandry» in agriculture, extending Ukraine's exports to China from raw materials such as raw grains and crude oil seeds to oil refining, protein meal, feed and some deep processing, increasing added value and

creating jobs. In 2020, China's import structure from Ukraine already includes grains, oils and feed raw materials. build oilseed crushing and feed production lines, establish quality certification and export channels to China; Introduce agricultural finance and agricultural machinery services. China can participate in Sinochem's agricultural inputs and supply chain platform, and Ukraine connects the agricultural sector with local processing enterprises. Raw material supply risk through order agriculture and agricultural insurance, energy risk through self-provided distributed energy, and market risk through long-term procurement agreements and multi-market exports to China. Increase export added value and employment, increase the tax base, and reduce the sensitivity of the Ukrainian economy to the raw material price cycle.

Establish a pilot center for legal and compliance risk mitigation to provide official assistance for transaction compliance, dispute resolution, and arbitration support among multinational enterprises. Provide export control, sanctions compliance, public procurement compliance, contract and dispute resolution support for Chinese and Ukrainian cooperative enterprises to reduce legal and reputational risks for cross-border projects, and China's export control law sets institutional boundaries for related transactions. Establish compliance checklists and due diligence templates, set up project contract templates (including force majeure, modifications, payment guarantees, and arbitration clauses), and provide local legal service networks and training. Establish a rapid response mechanism for disputes. China can participate in the China International Economic and Trade Arbitration Commission, professional law firms and insurance institutions, and the Ukrainian side can connect with the Chamber of Commerce and the judicial and economic departments. Enforcement risk is tied to financing institutions (no loans without compliance assessment), information asymmetry is passed through project databases and case databases, and cross-jurisdictional disputes are arbitrated and enforced. Reduce transaction costs and uncertainties, improve the availability of project

financing, and reduce the systemic friction of «signing contracts but difficult to perform».

Conclusions. Optimizing China-Ukraine economic cooperation in the current environment requires transitioning from the simple expansion of raw material trade volumes to institutionalized, project-based activities. To overcome wartime and financial risks, it is necessary to deploy a three-phase cooperation model that ensures closed-loop cash flows, strict compliance, and political risk insurance. Priority must be given to restoring critical nodes (energy, logistics), developing high-value-added processing, and harmonizing joint industrial projects with green standards and the regulatory mandates of the European Union market.

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