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Editorial Foreword

This issue formally introduces the journal under its new title, ***Thai Journal of National Interest*** (ISSN **3088-2729**). The change has been made to avoid duplication with existing journal titles and to ensure clarity in academic identification. The journal continues to operate on a **quarterly publication schedule**, with no changes to its editorial procedures or peer-review process.

The journal publishes peer-reviewed research concerned with national interest, political economy, security studies, international relations, and related interdisciplinary areas. Contributions are selected based on analytical coherence, methodological clarity, and relevance to ongoing scholarly debates. The change in title reflects administrative consolidation rather than a shift in editorial scope or research orientation.

Articles in This Issue

The articles included in this issue address themes of sovereignty, conflict, economic coordination, and strategic adjustment within contemporary international contexts.

The article **"Financial Sovereignty and Authoritarian Resilience in the Post-Soviet Space: Russia, Belarus, and Kazakhstan after 2014"** analyzes financial sovereignty as a mechanism of regime adaptation. Using the concepts of sovereign circuits and temporal sovereignty, the study examines how financial arrangements and planning horizons are employed to manage external constraints such as sanctions and dependency.

"Foreign Economic Cooperation between Ukraine and EU Countries: Current Trends and Future Forecasts" examines trade in goods between Ukraine and the European Union over the period 2004–2024, with forecasts extending to 2027. The study combines trend extrapolation, fuzzy set theory, and ABC analysis to model export and import dynamics under conditions of economic disruption.

The article **"Key Methods of Conducting Hybrid Warfare in the Modern Information Space"** focuses on propaganda and disinformation as components of hybrid warfare. It outlines analytical frameworks, including the "4D" strategy and "4F" tactics, to categorize information manipulation practices in digital environments.

In **"From Drones to Doctrine: Why Russia's Air War in Ukraine Is a Warning for Europe,"** the author examines the institutionalization of drone use within military doctrine. The analysis considers production capacity, tactical integration, and implications for European security planning.

The final article, **"Beyond Myths: Unpacking Thailand's Soft Balancing in Foreign Policy toward China,"** analyzes Thailand's foreign policy behavior following 2014. Through documentary and empirical analysis, the study examines how soft balancing operates across security, economic, and diplomatic dimensions in the context of great-power competition.

Closing

Taken together, the articles in this issue present empirically grounded and conceptually structured analyses of state behavior under conditions of geopolitical and systemic change. The ***Thai Journal of National Interest*** continues to serve as a forum for research examining political and economic processes relevant to national interest in comparative and international perspectives.

Dr. Jakkrit Siririn
Editor-in-Chief
Thai Journal of National Interest
Volume [6], Issue [2], [2025]

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Financial Sovereignty and Authoritarian Resilience in the Post-Soviet Space: Russia, Belarus, and Kazakhstan after 2014

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ABSTRACT

This article examines how financial sovereignty functions as a mechanism of regime adaptation in Russia, Belarus, and Kazakhstan from the 1990s to 2024. Using the framework of sovereign circuits and temporal sovereignty, the study situates financial strategies within broader questions of post-Soviet democratization. Russia's response to sanctions illustrates how authoritarian resilience can be reinforced through sovereign reserves, ruble-based circuits, and temporal design of industrial policy. Belarus exemplifies proxy-sovereignty, relying on Russian subsidies and dual-circuit mechanisms that sustain regime stability but deepen dependency. Kazakhstan demonstrates a hybrid strategy, oscillating between external anchors and national industrial ambitions. The findings suggest that financial sovereignty is not merely an economic condition but a political resource: regimes use it to reconfigure dependency, extend planning horizons, and buffer external coercion. The article contributes to debates on authoritarian durability by showing how post-Soviet states re-engineer financial time and circuits as instruments of governance under global systemic constraints.

KEYWORDS: Financial sovereignty, Temporal sovereignty, Sovereign circuits, Post-Soviet economies, Russia, Kazakhstan, Belarus, Post-2014 sanctions, Post-2022 rupture

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1. Introduction. The collapse of the Soviet Union produced diverse pathways of integration into the global economy, exposing its successor states to varying degrees of structural adjustment, financial dependency, and geopolitical vulnerability. The cases of Russia, Kazakhstan, and Belarus are illustrative of this divergence. While all three inherited a Soviet legacy of state-led industrial structures, their trajectories diverged under conditions of neoliberal reform and Western institutional penetration.

While much of the democratization literature emphasizes institutions, elections, and civil society, the post-Soviet experience shows that economic sovereignty itself has become a key determinant of regime survival. Financial circuits and temporal instruments are not only technical mechanisms but political resources that regimes mobilize to manage external pressure, preserve internal legitimacy, and resist democratizing shocks. In this sense, Russia, Belarus, and Kazakhstan exemplify three distinct modes of authoritarian adaptation: circuit-building, shielding, and diversification. Examining these mechanisms through the lens of sovereign circuits and temporal sovereignty thus extends the democratization debate into the domain of political economy, revealing how control over financial time and circuits can entrench or recalibrate regime trajectories. The post-2014 sanctions against Russia following Crimea, and the subsequent rupture after the 2022 Ukraine war, mark turning points in the global financial order. For Russia, they forced accelerated efforts to construct sovereign monetary circuits and alternative payment infrastructures. For Belarus, political isolation combined with economic dependency on Russia shaped a hybrid strategy: resisting Western penetration while remaining vulnerable to Russian dominance. Kazakhstan occupies a middle ground: pursuing modernization and integration with Western institutions, yet dependent on commodity exports and external investment, leaving its sovereignty exposed.

This study contributes to the literature on post-Soviet political economy by integrating three theoretical lenses:

Lenin's theory of imperialism, which highlights the persistence of financial subordination;

Wallerstein's world-systems theory, which situates post-Soviet states within the semiperiphery;

Khazin's meta-cycle framework, which conceptualizes financial sovereignty as a temporal process of circuit design and synchronization.

By focusing on post-2014 and post-2022, the article situates financial sovereignty not as a static status but as an evolving contest over time, circuits, and autonomy.

Research Objectives

This article addresses the following questions:

RQ1: How have Russia, Belarus, and Kazakhstan adapted their financial sovereignty strategies in response to external shocks such as sanctions, debt pressures, and commodity volatility (1991–2024)?

RQ2: In what ways do mechanisms of temporal sovereignty—including debt moratoria, commodity-anchored contracts, and regional clearing mechanisms—shape the ability of post-Soviet states to synchronize policy horizons with national development goals?

RQ3: How do the divergent and convergent strategies of Russia, Belarus, and Kazakhstan within the Eurasian Economic Union (EAEU) illuminate broader patterns of resilience and vulnerability in semi-peripheral political economies in the transition to a post-dollar order?

2. Literature Review

2.1. Structural Adjustment and Post-Soviet Transitions

The collapse of the Soviet Union was followed by an ambitious neoliberal experiment across Eurasia. Guided by the IMF, World Bank, and Western advisors, structural adjustment emphasized rapid privatization, trade liberalization, and fiscal austerity (Åslund, 2007; Stiglitz, 2002). While conceived as modernization, the reforms often accelerated industrial decline, widened social inequality, and deepened fiscal fragility (Wedel, 2001; Rutland, 2013). Comparative evidence highlights divergence. Russia, after partial compliance in the 1990s, experienced severe contraction culminating in the 1998 default, triggering a turn toward selective state re-intervention (Hanson, 2010). Kazakhstan largely adhered to IMF prescriptions, building a marketized hydrocarbon economy but exposing itself to commodity shocks as well as volatile foreign capital flows(Pomfret, 2019). Belarus, in contrast, resisted wholesale liberalization, maintaining state control over industry and agriculture, thus preserving industrial capacity but increasing] dependence on subsidized Russian energy (Ioffe, 2004; Marples, 2014). Most literature concentrates on this "first wave" of reform (1991–2008). Far less attention has been paid to the second wave: the post-2014 sanctions era and the post-2022 rupture, where external coercion paradoxically triggered new experiments in sovereign economic design. It is this lacuna that our analysis addresses.

2.2.State Capacity and Economic Sovereignty

The state capacity literature (Evans, 1995; Fukuyama, 2013) underscores governments' ability to design, coordinate, and enforce developmental strategies. In the post-Soviet region, capacity has been uneven. Russia retained centralized leverage, enabling industrial policy, capital controls, and sovereign

wealth fund deployment. Kazakhstan balanced among Russia, China, and Western investors, exercising a multi-vector policy while limiting endogenous capacity. Belarus relied on state corporatism: preserving large enterprises and collective farms, ensuring employment stability but at the cost of fiscal strain and vulnerability to Russian credit (Wilson, 2011). Economic sovereignty extends beyond resistance to sanctions or debt—it entails constructing sovereign circuits of production, finance, and innovation that reduce exposure to foreign coercion (Hudson, 2018). Russian scholarship emphasizes de-dollarization, import substitution, and parallel payment infrastructures (Glazyev, 2022). Belarus illustrates a different form: sovereignty not through diversification, but through dependence management, leveraging Russian ties while shielding domestic industry. Kazakhstan illustrates the opposite—seeking sovereignty through external balancing, but risking entanglement in competing logics. Thus, economic sovereignty is not simply autonomy; it is the strategic engineering of circuits that bind production, finance, and legitimacy.

2.3. Temporal Sovereignty as Governance Resource

Recent work has foregrounded temporal sovereignty: the ability to align policy horizons with national trajectories rather than external repayment schedules or market cycles (Khazin, 2019; Suwan-achariya, 2024). The post-sanction environment has intensified such experiments:

Russia deployed counter-sanctions, commodity-linked funds, and phased substitution to extend horizons beyond quarterly volatility (Connolly, 2018; Glazyev, 2022).

Belarus negotiated credit rollovers with Russia, effectively buying developmental time in exchange for geopolitical alignment (Ioffe, 2021).

Kazakhstan pursued long-horizon commodity contracts with China under the Belt and Road Initiative, anchoring fiscal expectations in multi-decadal frameworks but embedding asymmetric dependencies (Satpayev & Umbetaliyeva, 2015).

Temporal sovereignty thus reframes governance: not merely resisting external dictates, but redesigning time itself—through moratoriums, long-cycle contracts, or phased investment—to escape the tyranny of short-term liquidity.

2.4. Conceptual Synthesis

Taken together, these literatures reveal three insights:

1. Structural adjustment explains origins of vulnerability but underplays second-wave sovereign responses.
2. State capacity captures institutional variation but often treats sovereignty as static rather than circuital.
3. Temporal sovereignty introduces a novel lens, positioning time as governance resource

This triangulation extends classical and contemporary theories by positioning financial sovereignty within a multi-layered analytical structure. Lenin (1916) conceptualized imperialism as the fusion of monopoly capital and external financial control, establishing the historical foundations of asymmetric dependence. Wallerstein's (1974) world-systems framework situates Russia, Belarus, and Kazakhstan within differentiated semi-peripheral trajectories. Contemporary post-Soviet theorists refine these dynamics: Khazin (2019) identifies structural meta-cycles of financial exhaustion, while Glazyev (2022) outlines sovereign monetary architectures emerging in response to dollar-centric constraints. Hudson (2018) further links debt regimes to systemic dependency. Building on this lineage, Suwan-achariya (2024) conceptualizes temporal sovereignty as a strategic resource enabling states to redesign economic horizons.

Our framework integrates these strands to show how Russia, Belarus, and Kazakhstan exemplify distinct models of navigating constraint: selective autonomy, corporatist shielding, and multi-vector balancing. Each demonstrates how sovereignty today is not simply territorial or fiscal—it is temporal and circuital, embedded in the design of horizons and production-finance loops.

3.Methodology

3.1. Research Design

This study applies a comparative sovereign-circuit framework to analyze the balance between financial colonization and sovereign monetary-industrial circuits in Russia, Belarus, and Kazakhstan (2010–2025). The methodological approach integrates three components.

- A comparative political-economy foundation (Lenin, Wallerstein, Khazin) situates each case within world-system hierarchies.

- A mixed-method design combines quantitative index-building with qualitative contextual interpretation to capture both structural patterns and country-specific dynamics.
- An outcome-oriented evaluation assesses each country against predefined sovereignty benchmarks.

Together, these elements form a coherent framework for identifying how post-Soviet economies move between dependency and sovereign circuit formation.

3.2. Unit of Analysis

- **Macro-level of analysis**: national financial system, industrial base, and external linkages.
- **Timeframe**: 2010–2025, capturing sanctions, EAEU integration, and the post-2014 and 2022 shocks.

3.3. Data Sources

- **Primary quantitative sources**: IMF International Financial Statistics (IFS); World Bank World Development Indicators (WDI); UNCTADstat; WTO Statistics Database; EAEU customs data; and Central Bank reports (Russia, Belarus, and Kazakhstan).
- **Secondary qualitative sources**: peer-reviewed literature, policy documents, and official sanctions lists (EU, US, UN).

3.4. Research Instrument

The study employs a Sovereign Circuit Assessment Matrix (SCAMx), designed to evaluate the degree of financial dependency and temporal sovereignty across cases.

Table 1

Operationalization Matrix for Sovereignty Indicators ***(0–5 Scale)***

Dimension	**Indicator**	**Operational Definition**	**Measurement / Scale**	**Data Source**	**Interpretation (0–5)**
Monetary Sovereignty (MS)	Foreign currency settlements	Share of foreign vs national currency in trade	%	IMF, CB reports	0 = >80% USD/EUR, 5 = <20%
	Foreign debt/GDP	External debt burden	Ratio %	IMF, WB	0 = >100%, 5 = <20%

Dimension	**Indicator**	**Operational Definition**	**Measurement / Scale**	**Data Source**	**Interpretation (0–5)**
	Central bank independence	Degree of external capture vs sovereign control	CBI Index (0–1)	Garriga dataset, CB law	0 = fully externalized, 5 = state-controlled
	Domestic bond ratio	Domestic vs foreign bond financing	%	CB reports	0 = <20%, 5 = >80%
Industrial-Time Sovereignty (ITS)	Industry share of GDP	% contribution of manufacturing/industry	%	WB, Rosstat, Belstat, Kazstat	0 = <10%, 5 = >40%
	Import substitution	Reduction of strategic import dependence	% achieved	EAEU, customs	0 = none, 5 = >60%
	Export processing depth	Value-added in exports	% raw vs processed	UNCTAD, WTO	0 = raw-dominant, 5 = processed-dominant
	Reinvestment cycle	Speed of reinvestment	Years	Sector reports	0 = >10 yrs, 5 = <3 yrs
External Dependence Leakage (EDL)	Western FDI share	OECD share of total FDI	%	UNCTAD	0 = >80%, 5 = <20%
	Corridor dependency	Reliance on single trade/energy route	% exposure	EAEU stats	0 = single corridor, 5 = diversified
	Profit repatriation	% GDP drained as foreign profit outflow	% GDP	IMF, CB	0 = >8%, 5 = <1%
	Sanctions exposure	Composite sanction risk	Index	EU/US lists, WTO	0 = very high, 5 = minimal

Source: Compiled by the author from IMF DOTS, World Bank WDI, UNCTAD, Garriga (2016), and EAEU statistical reports.

3.5. Scoring Procedure

1. Collect the most recent data (2010–2025) for each indicator.
2. Normalize all indicators on a 0–5 ordinal scale, applying consistent interpretation criteria.
3. Aggregate the normalized indicators into three dimension scores: Monetary Sovereignty (MS), Industrial-Trade Sovereignty (ITS), and External Debt Load (EDL).
4. Compute the Sovereign Circuit Index (SCI) as follows:
   SCI=3 + +(5) /3
   (EDL is inverted since dependence lowers sovereignty).

3.6. Interpretation Framework

SCI 0–1.5 Extreme dependence (financial colonization).

SCI 1.6–3.0 Partial sovereignty (hybrid).

SCI 3.1–5.0 Consolidated sovereignty (sovereign circuit achieved).

3.7. Validity & Reliability

Triangulation: multiple sources (IMF, WB, EAEU) to cross-check indicators.

Temporal reliability: comparison across 15 years ensures pattern robustness.

Construct validity: dimensions derived from theory (Lenin = imperial finance, Wallerstein = core-periphery, Khazin = long-cycle dependence).

3.8. Research Instruments Summary

Instrument Type: Quantitative-qualitative composite index.

Data Collection Tool: Sovereign Circuit Analysis Matrix (SCAM).

Scale: 0–5 (normalized; higher scores indicate stronger sovereign circuits).

Output: Sovereign Circuit Index (SCI) calculated for each country.

Application: Used to compare Russia, Belarus, and Kazakhstan and to trace their movement toward or away from sovereign circuit consolidation.

4.Research Results: Financial Sovereignty in Russia, Belarus, and Kazakhstan

4.1. Findings: Adaptive Mechanisms of Financial Sovereignty (RQ1)

This objective examines how Russia, Belarus, and Kazakhstan have reconfigured their policy instruments to maintain financial sovereignty under external shocks such as sanctions, debt pressure, and commodity volatility (1991–2024).

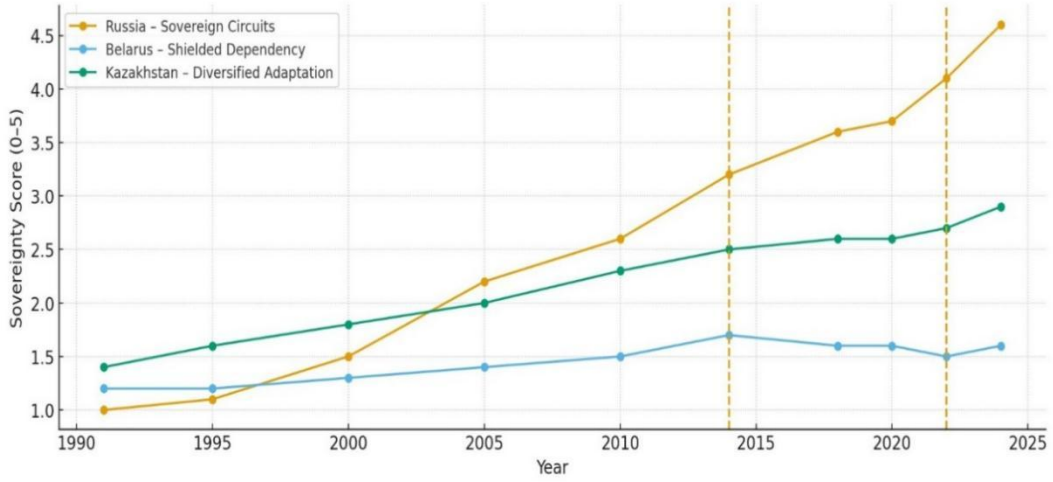

Figure 1. Adaptive Mechanisms of Financial Sovereignty in Russia, Belarus, and Kazakhstan (1991–2024)

Source: IMF International Financial Statistics (IFS), World Bank WDI, Central Bank of Russia (2010–2025).

Figure 1 demonstrates how each state's financial sovereignty trajectory diverged after systemic shocks. Russia shows a U-shaped recovery, moving from debt dependency in the 1990s toward consolidated sovereignty after 2014 through circuit innovations such as MIR, SPFS, and ruble–yuan settlements. Belarus remains at a persistently low level, reflecting its strategy of shielding through reliance on Russian subsidies and barter trade rather than independent circuits. Kazakhstan occupies a middle position, oscillating between moderate sovereignty and renewed dependency, as oil cycles and external anchors shape its financial rhythm. Together, the trajectories confirm that adaptive mechanisms—circuits, shielding, diversification—produce distinct temporal horizons of sovereignty within the post-Soviet space.

Table 2.

External Debt Indicators (% of GDP, 2010–2025) for Russia, Belarus, and Kazakhstan.

Indicator (2010–2025)	**Russia**	**Belarus**	**Kazakhstan**
External Debt (% of GDP, avg.)	32–36% (decline post-2014, sharp fall after 2022 sanctions)	55–65% (persistent, reliant on Eurobond & Russian credit)	40–45% (moderate, reliant on FDI & sovereign borrowing)
Foreign Exchange Reserves (USD bn, 2023)	~580 (strong buffer, but partly frozen in West)	~7 (thin, dependent on Russian support)	~35 (moderate, commodity-backed)
Trade Dependence (share of exports to EU/China/Russia, %)	EU after 2014; China (20 30%); EAEU ~10%	Russia >50% (chronic asymmetry)	China ~40%, Russia ~20% (diversified)
Industrial Base Resilience	Military–industrial complex sustained, import substitution post-2014	Highly dependent on Russia (refining, machinery)	Energy-driven; limited diversification
Sanctions Exposure	Severe (2014, 2022 waves) accelerated de-dollarization	Secondary sanctions (due to Russia linkages)	Mild (Western companies withdrew, but less targeted)

Source: IMF International Financial Statistics (IFS), World Bank WDI, Central Bank of Russia (2010–2025).

This table presents average external debt burdens, highlighting Russia's post-sanctions deleveraging, Belarus's persistent reliance on external credit, and Kazakhstan's moderate but FDI-dependent exposure.

Figure 1 and Table 2 illustrate the divergent trajectories of Russia, Belarus, and Kazakhstan in their efforts to reconfigure monetary and financial sovereignty after 2010. Russia demonstrates the most pronounced capacity to construct sovereign circuits, deploying SPFS (System for Transfer of Financial Messages), MIR payment cards, and commodity-backed clearing mechanisms. Belarus, in contrast, remains structurally dependent on Russian financial channels, with minimal capacity to insulate against sanctions. Kazakhstan occupies a middle position, with limited but growing diversification through yuan-based settlements and

swap agreements with China. These patterns confirm that circuit sovereignty is asymmetrically distributed within the region.

Findings:RQ 2.Temporal Sovereignty Instruments and Strategic Shielding

This objective analyzes the ability of states to design and control their economic time horizons through instruments such as debt moratoria, commodity-anchored contracts, and regional clearing mechanisms.

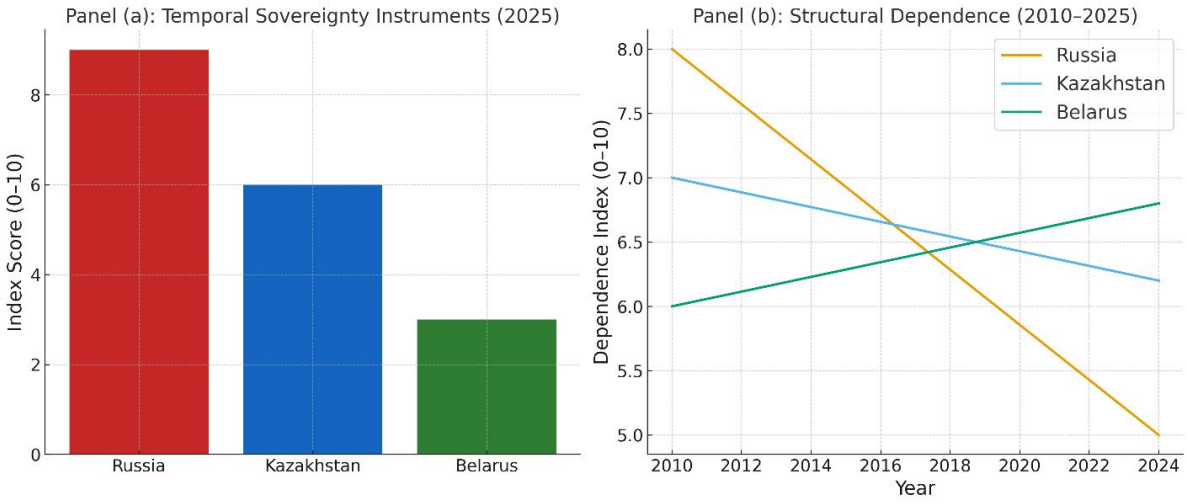

Figure2.Temporal Sovereignty vs Structural Dependence

Source: Author's elaboration based on IMF IFS, World Bank WDI, EAEU data (2010–2025).

The comparative evidence confirms distinct adaptive trajectories across Russia, Belarus, and Kazakhstan. As shown in Figure 1 and Table 2, Russia has moved toward circuit-based sovereignty, Belarus has relied on protective dependence on Russia, and Kazakhstan has taken a diversification-oriented path. **Figure 2 links these trajectories to temporal sovereignty mechanisms.** Panel (a) demonstrates how Russia deployed moratoria, commodity-anchored contracts, and non-instant clearing to consolidate sovereign circuits, while Kazakhstan applied temporal tools selectively through the Samruk-Kazyna fund; Belarus remained limited in its temporal capacity. Panel (b) shows the corresponding outcomes: Russia's vulnerability declines markedly after 2014 and especially after 2022, Kazakhstan achieves partial but stable risk reduction, and Belarus maintains a persistently high level of dependence.Together, the two panels illustrate that temporal-sovereignty instruments function as the causal mechanism shaping long-term structural dependence. This pattern correlates with the institutionalization of sovereign temporal tools: Russia's consolidation reduces exposure, Kazakhstan preserves a moderate and steady dependence consistent with its multi-vector strategy, whereas Belarus exhibits an upward trend of dependence, underscoring its limited temporal autonomy.

Table 3.

Temporal Sovereignty Scores (2010–2025)

Instrument / Mechanism	**Russia**	**Belarus**	**Kazakhstan**	**Notes / Interpretation**
Debt Moratoria / Rescheduling	High (applied 1998, reactivated via "sovereign shield" after 2022)	Low (heavily reliant on Russian credit, no independent moratoria)	Moderate (used partial restructuring during COVID-19)	Russia leveraged moratoria as strategic time buffer
Commodity Anchoring (oil, gas, grain, gold)	High (oil–gas contracts, gold accumulation post-2014)	Low (energy refining but no sovereign commodity control)	Moderate–High (oil & uranium exports to China/India with long contracts)	Anchoring secures temporal stability in trade flows
Clearing / Non-Dollar Circuits (EAEU, CIPS, MIR)	High (MIR, SPFS, CNY reserves, bilateral clearing with China, India, Iran)	Very Low (dependent on Russian banking infrastructure)	Moderate (partial use of CNY settlements, swap lines with China)	Russia leads in circuit diversification
Temporal Sovereignty Composite Score (1–5)	5	2	3	Russia most advanced, Kazakhstan adaptive, Belarus lagging

Source: IMF International Financial Statistics (IFS), World Bank WDI, Central Bank of Russia (2010–2025).

Figure 2a,b and Table 3 focus on the application of temporal sovereignty instruments—moratoria, commodity anchoring, and clearing systems. Russia consistently ranks highest in their use, demonstrating capacity to extend its economic time horizon through debt moratoria and long-term commodity contracts. Kazakhstan applies these tools selectively, mainly in energy and uranium exports, giving it moderate shielding capacity. Belarus shows minimal independent application, relying on Russian frameworks. The evidence demonstrates that temporal sovereignty functions as a strategic lever: where instruments are

deployed, states are better able to resist external liquidity shocks and sanctions, confirming the theoretical link between time design and sovereignty resilience.

Findings:RQ 3. Comparative Framework within the EAEU

The findings enable the construction of a comparative framework that evaluates semi-peripheral EAEU states along three dimensions of the post-dollar transition: monetary circuits, institutional autonomy, and temporal sovereignty instruments.

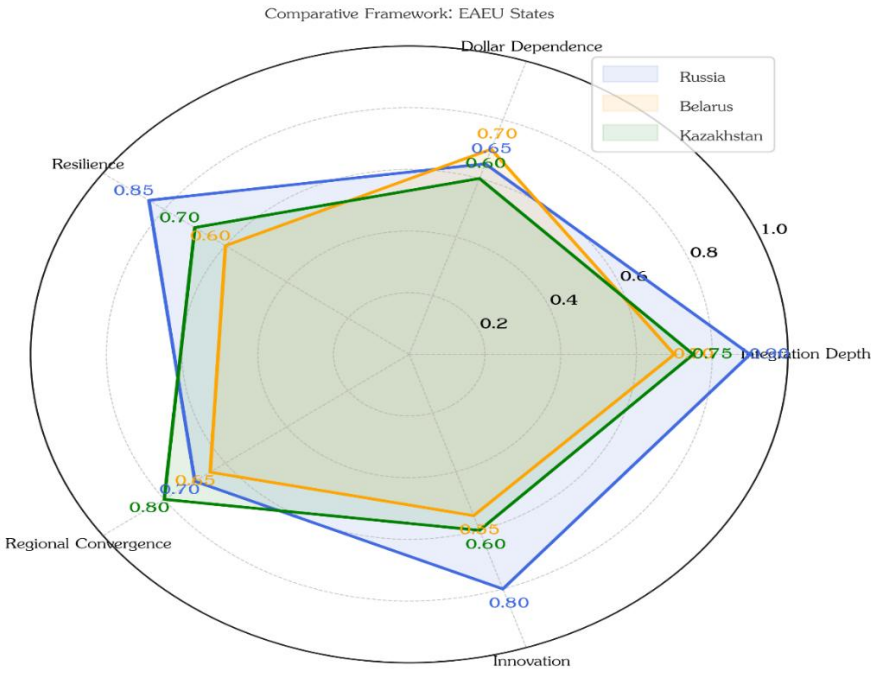

Figure 3. Comparative Framework of EAEU States: Integration Depth, Dollar Dependence, Resilience, Regional Convergence, and Innovation
Source: Author's elaboration based on IMF IFS, World Bank WDI, EAEU data (2010–2025).

The radar chart illustrates the comparative positioning of Russia, Belarus, and Kazakhstan within the EAEU framework. Russia shows the strongest resilience and innovation capacity, coupled with deep integration but moderate dollar dependence. Belarus demonstrates higher dollar dependence and weaker resilience, reflecting reliance on Russian support. Kazakhstan occupies an intermediate position, with strong regional convergence but persistent vulnerability to external shocks. The figure highlights divergence in adaptive sovereignty among the three states.
Comparative insight: Semi-peripheral states are not passive victims of dollar hegemony; they design partial sovereignty in finance and time, though unevenly.

Table 4.

Comparative Dimensions of Circuit Sovereignty in the EAEU States (Russia, Belarus, Kazakhstan).

Dimension	**Russia**	**Belarus**	**Kazakhstan**	**EAEU Implications**
Circuit Sovereignty (control over payment/clearing systems)	Strong – SPFS, MIR, CIPS linkages, gold reserves	Weak – depends on Russian banks, limited circuit autonomy	Moderate – partial yuan clearing, swap lines with China	Russia acts as anchor; Kazakhstan builds alternatives; Belarus remains dependent
Shielding Capacity (ability to insulate economy from sanctions/external shocks)	High – moratoria, commodity-backed contracts, capital controls	Low – exposed to sanctions spillover, lacks sovereign shielding tools	Medium – energy & uranium exports create partial buffer	Asymmetry creates tiered vulnerability across the bloc
Diversification (trade, currency, partners)	Broad – China, India, Iran, BRICS+	Narrow – trade & finance centered on Russia/EU	Expanding – China pivot, Belt and Road corridors	Kazakhstan diversifies fastest; Belarus locked in
Temporal Sovereignty (time control via instruments)	Advanced – multi-instrument design (moratoria, clearing, commodities)	Lagging – no independent mechanisms	Emerging – contracts & swaps extend policy horizon	Multipolar asymmetry: Russia leads, Kazakhstan adaptive, Belarus weakest

Source: IMF International Financial Statistics (IFS), World Bank WDI, Central Bank of Russia (2010–2025).

The table summarizes differences in financial circuit control, highlighting Russia's leadership, Belarus's dependency, and Kazakhstan's partial diversification.

Figure 3 and Table 4 synthesize the comparative framework across the EAEU, integrating the national patterns into a bloc-wide perspective. Russia emerges as the systemic anchor of circuit and temporal sovereignty, while Kazakhstan diversifies through external corridors (China, Belt and Road). Belarus remains structurally locked into dependence, with limited capacity for autonomous adaptation. The asymmetric distribution of sovereignty across the EAEU reveals a tiered architecture: Russia leads in

systemic design, Kazakhstan adapts through diversification, and Belarus remains vulnerable. This framework confirms the hypothesis that sovereignty within the union is not uniform but stratified, shaping both cooperation and tension in integration processes.

5.Discussion:

5.1. Adaptive Mechanisms of Financial Sovereignty in Russia, Belarus, and Kazakhstan (1991–2024)

Table 5.

Adaptive Mechanisms of Financial Sovereignty (1991–2024)

State	Temporal Instruments	Time Sovereignty
Russia	Reserves accumulation, import substitution, MIR payment system	Stronger autonomy under sanctions
Belarus	Reliance on Russian subsidies, SOEs, managed instability	Partial, fragile, externally dependent
Kazakhstan	Oil stabilization fund, pivot to China, commodity anchor	Moderate, but structurally dependent

Source: Compiled by the author from Central Bank of Russia (CBR) Annual Reports (1999–2024); Eurasian Economic Union (EAEU) Macroeconomic Review (2023); World Bank World Development Indicators; IMF Article IV Consultations; and regional policy papers on post-Soviet financial strategies.

Temporal sovereignty manifests in debt moratoria, commodity-clearing mechanisms, and long-term planning instruments. Russia's moratoria (1998, 2022) reset its financial timeline; Belarus used barter exchanges to stabilize price cycles; and Kazakhstan relies on EAEU-based clearing arrangements. Lenin emphasizes the financial time imposed by imperial centers; Wallerstein illustrates how core nations compress the developmental horizons of semi-peripheries; and Khazin conceptualizes crises as moments for circuit reset. **These theoretical lenses clarify the differentiated temporal strategies of the three states.**Russia demonstrates a systemic trajectory: shifting from 1990s debt-dependency to accumulating sovereign reserves in the 2000s, culminating in a sanctions-driven ruble reconfiguration after 2014. Belarus, by contrast, exhibits proxy-sovereignty—its adaptive mechanisms are mediated through Russian energy subsidies and state-owned enterprise networks, leaving it with fragile autonomy. Kazakhstan has pursued a stabilization-through-commodities model, underpinned by the National Oil Fund, but its sovereignty remains vulnerable to global commodity cycles, particularly oil price volatility.

5.2. Temporal Sovereignty

Table 6.

Temporal Instruments and Time Sovereignty

State	Temporal Instruments	Time Sovereignty
Russia	Debt moratoria, 10–15 year commodity contracts, industrial timelines	High (resilient)
Belarus	Ad-hoc credit lines, external subsidies	Low
Kazakhstan	Oil fund smoothing, swap lines, regional clearing mechanisms	Medium

Source: Synthesized by the author from Central Bank of Russia Annual Reports (2014–2024); Eurasian Economic Union (EAEU) Macroeconomic Review (2023); IMF Article IV Consultations; World Bank WDI; and national policy documents on regional financial coordination.

Temporal sovereignty refers to the capacity to design long-term economic rhythms rather than borrowing time from external creditors. Russia institutionalized temporal control through debt moratoria, strategic import substitution, and multi-decade contracts—reshaping its economic horizon. Belarus lost temporal sovereignty by tethering its cycles to Moscow's liquidity. Kazakhstan oscillates: its sovereign wealth fund extends short-term buffers, yet commodity cycles and external anchors (primarily the dollar and yuan) limit durable autonomy.

5.3. Post-Dollar Strategies

Table 7.

Post-Dollar Strategy and Integration Level (Russia, Belarus, Kazakhstan, 2023–2024)

State	Post-dollar Strategy	Integration Level
Russia	BRICS+, ruble-based circuits, MIR, de-dollarization	High leadership
Belarus	Alignment with Russia, minimal innovation	Low
Kazakhstan	Gradual pivot to China, yuan clearing, EAEU settlements	Medium

Source: Synthesized by the author from Eurasian Economic Union (EAEU) Macroeconomic Review

(2023); Bank of Russia Annual Report (2024); IMF Article IV Consultations; World Bank Global Economic Prospects; and official monetary policy documents of Belarus and Kazakhstan.

The Eurasian Economic Union (EAEU) demonstrates partial resilience. Russia anchors the system by spearheading de-dollarization and ruble-clearing infrastructures. Belarus remains subordinated, following Moscow without independent innovation. Kazakhstan positions itself as a bridge—leveraging multipolar trade via China while remaining dependent on commodities.

5.4. Epistemological Synthesis

Lenin Imperialist constraints persist: finance remains an instrument of domination over semi-peripheral states.

Wallerstein World-systems lens: Russia is moving from semi-periphery toward near-core; Belarus remains trapped in the periphery; Kazakhstan is a hybrid, semi-peripheral bridge.

Khazin Temporal sovereignty is the decisive axis: Russia designs time, Belarus borrows it, Kazakhstan negotiates between circuits.

5.5. Policy Implications

1. **Russia** Expand ruble clearing, BRICS+ settlements, and industrial time horizons to consolidate sovereignty.
2. **Belarus** Diversify beyond Russian subsidies; develop indigenous financial circuits to avoid structural fragility.
3. **Kazakhstan** Reduce commodity dependence by embedding industrial temporal design and multi-vector clearing systems.

6. Conclusion: Financial Sovereignty and Temporal Autonomy in Eurasia

This study demonstrates that Russia, Belarus, and Kazakhstan pursue divergent pathways in constructing financial sovereignty. Russia has transitioned toward a model of temporal autonomy reinforced by reserves, payment-system diversification, and post-dollar infrastructures. Belarus remains structurally dependent on Russia, exhibiting proxy-sovereignty with limited institutional buffers. Kazakhstan follows a hybrid model that blends international integration with commodity-based stabilization. Temporal sovereignty emerges as the decisive explanatory variable shaping long-term resilience and strategic independence.

7. Future Research Directions

Future research should examine the development of multi-currency clearing mechanisms, the role of digital and algorithmic currencies in shaping post-dollar financial architectures, and the long-term evolution of BRICS+ sovereign circuits. Further integration of temporal political economy with institutional analysis may clarify how states design and sequence economic time under conditions of systemic fragmentation and geopolitical realignment. Comparative longitudinal studies and circuit-level modelling would also advance understanding of how temporal sovereignty is operationalized in semi-peripheral settings.

Data availability statement

No new data were created or analyzed in this study

AI Use Disclosure

Portions of the manuscript were refined for clarity, grammar, and formatting using ChatGPT (GPT-5, OpenAI). The tool was used exclusively for linguistic and stylistic enhancement and not for conceptual development, data analysis, or the generation of substantive arguments. All interpretations, claims, and conclusions are entirely the authors' responsibility.

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Foreign economic cooperation between Ukraine and EU countries: current trends and future forecasts

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ABSTRACT

The purpose of the article is a comprehensive analysis of the indicators of trade in goods between Ukraine and the EU, starting from 2004, identifying trends and forecasting prospects. The originality of the article lies in the combination of three research methods: extrapolation of trends – to determine the trends of export-import operations between Ukraine and the EU in 2004-2024 and obtaining point forecast values for 2025-2027; fuzzy set theory – to obtain interval forecast values of foreign economic cooperation between Ukraine and the EU for 2025 and improving the quality of forecasting; ABC analysis – to group EU countries by indicators of trade in goods with Ukraine under martial law. As a result, a polynomial trend model was built for forecasting exports of Ukrainian goods to the EU, and a power trend model for forecasting imports of European goods to Ukraine. Trapezoidal fuzzy intervals of exports of goods from Ukraine to the EU in 2025 and imports of goods from the EU to Ukraine in 2025 were obtained. When constructing trapezoidal fuzzy intervals to determine pessimistic and optimistic estimates (extreme points of the lower base and extreme points of the upper base, respectively), the author's methodology was used, according to which the optimistic interval includes approximately half of the central elements of the observed dynamic series, ordered in ascending order; they have the highest probability of verification. It was determined that under martial law, Ukraine most effectively cooperated in the field of trade in goods with seven EU countries: geographical neighbors Poland, Romania, Hungary, Slovakia (land borders), Bulgaria (sea borders), as well as the countries of the "Big Seven" – Germany, Italy. The practical significance of the study lies in the possibility of using the results of the study for planning Ukraine's foreign trade operations and choosing partner countries.

KEYWORDS: export, import, goods, trade, Ukraine, EU, forecasting, trend models, fuzzy sets, ABC analysis

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1. Introduction. The Association Agreement between Ukraine and the European Union (hereinafter referred to as the EU), ratified in 2014, provides for the introduction of conditions for enhanced economic and trade relations that will lead to the gradual integration of Ukraine into the EU internal market, including through the creation of a deep and comprehensive free trade area (Association Agreement, 2014). In addition, in June 2022, Ukraine received the status of a candidate for accession to the EU. Thus, the study of export-import operations between Ukraine and the EU is relevant and interesting. In addition, the study of foreign economic cooperation between Ukraine and the EU is appropriate from the point of view of the state of war in which the country is located. After all, the russian armed invasion of Crimea and eastern Ukraine in 2014, the full-scale invasion of the territory of Ukraine in February 2022 had a negative impact not only on the social sphere, but also on the economic activity of the country: trade with the russian federation and belarus was minimized, industrial and civil infrastructure was destroyed, a number of enterprises were closed, agricultural land was contaminated, logistics chains were disrupted, workers were mobilized and emigrated, etc. All this was reflected in macroeconomic indicators (GDP, inflation, investments, unemployment), and also affected Ukraine's external cooperation with foreign partners, including the EU.

2. Literature Review. Over the past four years, scientists have published a number of works devoted not only to the current state of international trade in goods and services between Ukraine and the EU, but also to the impact of military operations in Ukraine on the economies of European countries. In particular, Ambroziak et al. (2024) assessed the competitive positions of Polish and Ukrainian food producers on the EU market and the prospects for the development of their competitive advantages. For the analysis, they used the Balassa Comparative Advantage Index (RCA) and the Trade Coverage Index (TC). The study covered the period from 2018 to 2023. In turn, Bulkowska & Bazhenova (2023) assessed the impact of the war in Ukraine on Polish trade in agri-food products. They used a statistical and descriptive method of analyzing production and trade data, as well as competitiveness indices: the Comparative Advantage Index (RCA) and the Trade Coverage Coefficient (TC). Horská et al. (2023) investigated the impact of the main factors on the dynamics of exports of regions of Ukraine in the pre-conflict and conflict periods based on data for 2003–2019. They estimated the impact of the military conflict on the development of exports using a differential dummy variable of the intersection, as well as changes in the slope coefficient.

Jacyna-Golda et al. (2024) tested an intermodal freight transportation model to optimize logistics flows in international trade between Ukraine and Poland, taking into account minimizing costs and time for transport services. Kovbatiuk et al. (2023) proposed a model for assessing Ukraine's commodity exports to world integration associations (including the EU-27), the main component of which is the constant market share method (CMS analysis). In turn, Kudyrko et al. (2024) analyzed the volumes, dynamics and structure of exports and imports of goods and services in 2011–2021, and revealed the environmental aspects of curbing exports from Ukraine to the EU by main groups of commodity exports.

Levytska et al. (2024) investigated modern scientific views on the content and prospects of Ukraine's economic partnership with the EU, analyzed the main indicators of trade relations and their

role for the economies of the studied countries. They used methods of theoretical generalization and comparative analysis, statistical methods of analysis. In turn, Maly et al. (2023) analyzed the relationship between ten packages of EU sanctions and foreign trade between the Czech Republic and the russian federation. Maruniak et al. (2023) carried out a spatial analysis of the features of regional differentiation of Ukraine's trade in goods with EU countries. They used such research methods as structural-spatial analysis, statistical and correlation analysis, typological analysis. The authors analyzed the dynamics of trade in goods between Ukraine and the EU in 2001–2021 and identified the main trends in interstate trade in goods.

The economic maturity of Georgia, Moldova and Ukraine in the field of integration was analyzed by Nielsen & Siljak (2025) through five key components: macroeconomic stability, functioning market economy, competitiveness, access to foreign financing and convergence with the EU. In turn, Nifatova et al. (2024) analyzed Ukraine's contribution to the total volume of imports to the EU-27 countries by categories of organic products that have the largest share in total imports from Ukraine; examined the general trends of import dependence of the European organic market on imports from Ukraine by categories with the largest contribution; conducted a clustering of the EU-27 countries based on organic market indicators; analyzed the European organic market using the example of Ukrainian imports. The main indicators of the Ukrainian economy and its foreign trade were analyzed by Radziyevska (2023). It argues that trade policy should be formulated and implemented in such a way that Ukraine's foreign economic activity is more service-oriented and based on science and technology.

Schmidt (2024) examined aid to Ukraine on a cross-national basis, using differences in the economic, political and geographical characteristics of donor countries, in particular EU and NATO members. In turn, Shnyrkov et al. (2023) proposed economic and mathematical models based on the regression-correlation method to identify the determinants of EU economic aid to Ukraine. The results of the analysis showed that the total amount of aid to Ukraine is significantly correlated with the donor country's trade relations with Ukraine, the presence of a common border with the russian federation and is inversely proportional to the size of the donor country's economy. Tokar (2024) conducted a comprehensive study of economic security in EU member states and Ukraine, identified differences and proposed targeted policy interventions based on these differences. In his study, he used a quantitative strategy that assigns numerical ratings to countries based on their indicators according to predefined thresholds. These indicators include industrial, demographic, energy, investment and innovation, macroeconomic, food, financial, foreign trade, and social security.

Totska (2022a-d, 2023a-c, 2024a-b) published a number of works in which she analyzed financial aspects and forecasting modeling of foreign trade in agro-industrial complex products between Ukraine and Romania; forecasting the value of Ukrainian agricultural exports based on fuzzy sets; value measurement of Ukrainian exports of grain crops, fats and oils to EU countries; determining the probability of favorable trends in the export-import of tourism services of Ukraine with EU countries; value measurement of foreign trade in goods and services of Ukraine with EU countries in 2021; analysis of seasonal fluctuations in exports of agro-industrial complex products of Ukraine in the period March 2022-January 2024.

Tuliakov et al. (2023) studied the dynamics, state and structure of Ukraine's foreign trade with EU countries before the war. The authors noted that since the beginning of the war, Ukraine has seen an increase in exports of goods to the EU, as Ukrainian companies cannot directly supply goods to Asia, Africa and America due to the blockade of seaports, and they are forced to do so through EU countries. In addition, Tuliakov et al. (2024) studied the impact of Ukraine's exports and imports of goods to the EU on its national GDP from 2005 to 2023. The results of the study showed that exports, especially to countries such as the Netherlands, Romania and Bulgaria, have the greatest impact on Ukraine's GDP. They used the vector autoregression (VAR) model and the Granger causality test.

In turn, Versal et al. (2023) identified key characteristics of Ukraine's defense economy and forecasted key policy rates and exchange rates during the war. The premise of the forecast was an analysis of endogenous and exogenous factors determining the current state of Ukraine's economy, including the business expectations index in Ukraine and partner countries, the state of international trade and the balance of payments. Zalizniuk & Artamonova (2025) analyzed the structure and dynamics of Ukraine's foreign trade with European countries, focusing on the EU's demand for Ukrainian agri-food products, which are currently the leading category of Ukraine's exports to Europe. Zawojska & Siudek (2024) analyzed the consequences of russia's armed invasion of Ukraine for the EU's trade policy towards this country and for changes in mutual foreign trade in agri-food products. The study used a political economy approach (including interest group theory).

As we can see, scientists have studied the foreign economic activity of Ukraine and European countries based on various indicators and indices, applying a large number of methods and building mathematical models.

The purpose of this article, unlike the ones analyzed, is to conduct a comprehensive analysis using three methods of indicators of trade in goods between Ukraine and the EU, starting from 2004, identify trends and forecast prospects.

3. Methodology. The following methods will be used for the study:

1) the trend extrapolation method – to determine the trends of export-import operations between Ukraine and the EU in 2004-2024 and obtain point forecast values for 2025-2027;

2) fuzzy set theory – to obtain interval forecast values of foreign economic cooperation between Ukraine and the EU for 2025;

3) ABC analysis – to group EU countries by indicators of trade in goods with Ukraine under martial law (2022-2024).

Extrapolation involves the extension of past and current patterns, connections and relationships to the future, its methods are the most common methods of short-term forecasting. The trend, in turn, reflects the tendency of a phenomenon to change over time. We will build five trend models for each indicator: exponential, linear, logarithmic, polynomial, and power. Forecast indicators will be calculated based on the trend model that has the highest R^2 approximation reliability value.

In our study, the fuzzy intervals have the form of a trapezoid, where the extreme points of the lower base (pessimistic estimates) have the lowest probability of verification, and the extreme points of

the upper base (optimistic estimates) have the highest probability of verification. To determine the pessimistic and optimistic estimates, a method was used, according to which the optimistic interval includes approximately half of the central elements of the dynamic series, ordered in ascending order; they have the highest probability of verification, i.e. the measure of belonging (Totska, 2022b).

According to the theory of fuzzy sets, forecast indicators of exports and imports have the highest probability of falling (measure of belonging) into the optimistic intervals. Deviations of forecast indicators from these intervals in the larger or smaller direction (pessimistic intervals) have a lower probability of being true. Forecast indicators falling outside the pessimistic intervals are unlikely.

ABC analysis is based on the so-called Pareto law (20/80, "rule of thumb"), according to which one fifth (20%) of the total number of objects usually gives about 80% of the results, and the contribution of the remaining 80% is only 20%. The essence of the Pareto principle is that in the process of achieving any goal, it is irrational to pay equal attention to objects that are decisive and objects that have a small return.

The use of ABC analysis will allow us to carry out a deeper division, compared to the Pareto principle: to divide the initial set of countries into three subsets, depending on their specific weight in the total value of the export / import indicator (A – about 80%, B – about 15%, C – about 5%).

4. Results.

4.1. Determination of trends in 2004–2024 and obtaining point forecast values for 2025–2027. At the first stage of the study, we will analyze the absolute indicators of exports and imports of goods between Ukraine and the EU for the period 2004–2024 and form forecast trend models for 2025–2027. To do this, we will construct **Table 1** and **Fig. 1–2**.

Table 1.

Ukraine's foreign trade in goods with EU countries, million USD

Indicator	2004	2005	2006	2007	2008	2009	2010	2011
Exports	11,009.6	10,233.4	12,087.9	13,916.4	18,129.5	9,499.3	13,051.9	17,970.0
Imports	9,547.4	12,191.9	16,194.6	22,218.7	28,868.4	15,392.7	19,101.2	25,752.9
Indicator	2012	2013	2014	2015	2016	2017	2018	2019
Exports	17,081.3	16,758.6	17,002.9	13,015.2	13,496.3	17,533.4	20,157.0	20,750.7
Imports	26,156.4	27,046.5	21,069.1	15,330.2	17,140.8	20,799.4	23,216.5	25,012.2
Indicator	2020	2021	2022	2023	2024	2025*	2026*	2027*
Exports	18,604.9	26,793.0	27,890.7	24,715.9	24,829.8	27,934.8	29,363.8	30,853.7
Imports	23,859.7	28,954.3	26,962.4	32,641.4	35,713.3	28,469.7	28,855.5	29,229.8

*Forecast data obtained using trend models.

Note. Generated by the author based on statistical data (State Statistics Service of Ukraine, 2025).

As we can see, in the analyzed period, exports of goods from Ukraine to the EU had a wavy upward trajectory: trade peaks occurred in 2008, 2011, 2019, and 2022, declines in 2009, 2015, 2020, and 2023. The sharp decline in Ukrainian exports to the EU during the indicated periods can be explained by the consequences of the global financial crisis of 2008, the russian armed invasion of

Crimea and eastern Ukraine in 2014, the spread of the coronavirus disease 2019, and the full-scale invasion of the russian federation into the territory of Ukraine in February 2022. Note that each subsequent peak (except 2011) and each subsequent decline is higher than the previous one. Thus, by analogy with the Dow theory of stock prices over time, the chart shows an upward (bullish) trend.

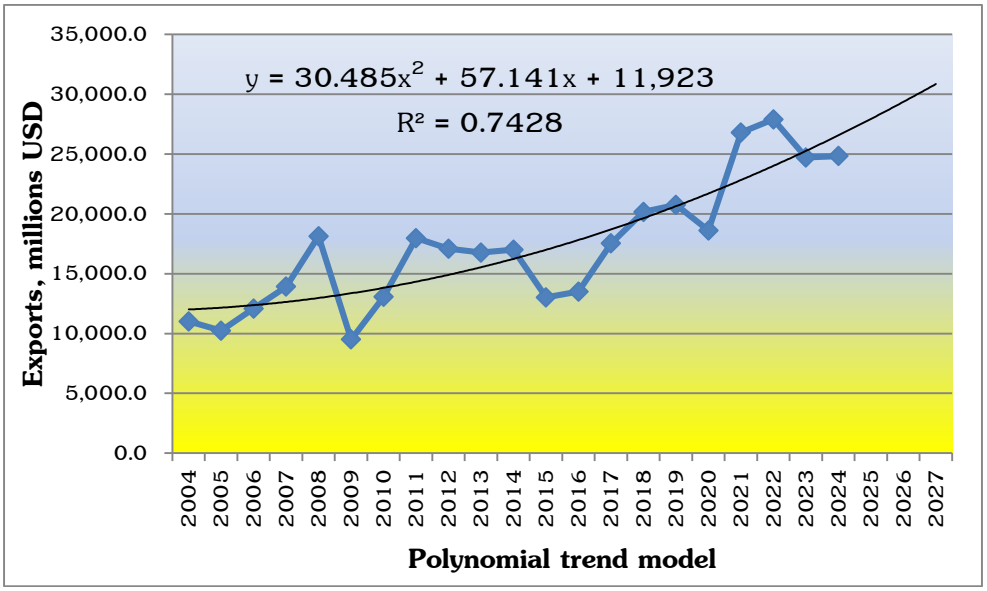

Figure 1. *Dynamics of exports of goods from Ukraine to the EU, million USD*

Note. Compiled by the author based on **Table 1**.

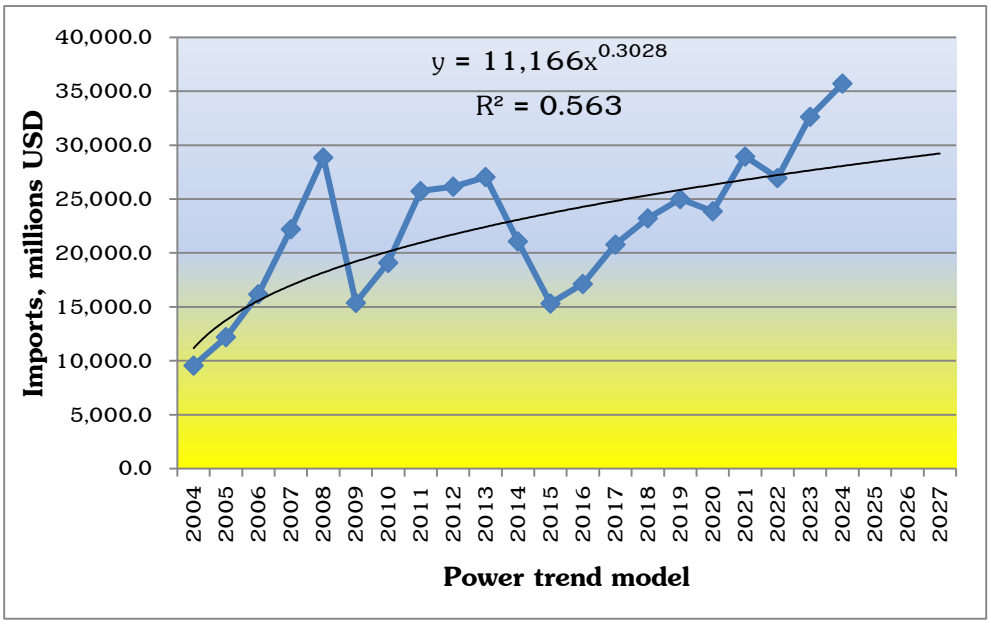

Figure 2. *Dynamics of imports of goods from the EU to Ukraine, million USD*

Note. Compiled by the author based on **Table 1**.

Imports of goods from the EU to Ukraine generally also tend to increase, in particular, the peaks of import supplies of goods fell on 2008, 2013, 2021, 2024. The sharpest drop in imports of

European goods was observed in 2009 and 2015, which can also be considered a consequence of the global financial crisis and the russian invasion of Ukraine. In our opinion, there is also an upward (bullish) trend here, although not as pronounced as in the previous **Figure 1**.

To obtain point forecast indicators of export–import activity between Ukraine and the EU, we will use the trend extrapolation method.

So, using Microsoft Excel, we will build five trend models:

exponential ($y = a_1 e^{a_0 x}$);

linear ($y = a_1 x + a_0$);

logarithmic ($y = a_1 \ln(x) + a_0$);

polynomial ($y = a_2 x^2 + a_1 x + a_0$);

power ($y = a_1 x^{a_0}$), where a_0, a_1, a_2 are constants, x is time.

However, we will choose only one of them that has the highest value of the R^2 approximation reliability. In our case, for the export of goods from Ukraine to the EU, we will obtain the following trend equations:

$y_1 = 10{,}446e^{0.042x}$ ($R_1^2 = 0.699$) – exponential trend model;

$y_2 = 727.81x + 9{,}352.6$ ($R_2^2 = 0.7067$) – linear trend model;

$y_3 = 4{,}865.9 \ln(x) + 6{,}843.4$ ($R_3^2 = 0.5485$) – logarithmic trend model;

$y_4 = 30.485x^2 + 57.141x + 11{,}923$ ($R_4^2 = 0.7428$) – polynomial trend model;

$y_5 = 8{,}815.7x^{0.2924}$ ($R_5^2 = 0.5879$) – power trend model.

As we can see, the polynomial trend model has the highest value of the $\square^2$ approximation reliability. The forecast indicators of goods exports calculated on its basis are given in the penultimate row of **Table 1**. They indicate a significant increase in exports of Ukrainian goods to the EU in 2025–2027 and reaching the value of 30,853.7 million USD in 2027.

For imports of goods from the EU to Ukraine, we obtained the following trend equations:

$y_6 = 14{,}400e^{0.0364x}$ ($R_6^2 = 0.4676$) – exponential trend model;

$y_7 = 738.82x + 14{,}405$ ($R_7^2 = 0.4702$) – linear trend model;

$y_8 = 5{,}680.1\ln(x) + 10{,}258$ ($R_8^2 = 0.4826$) – logarithmic trend model;

$y_9 = 13.261x^2 + 447.08x + 15{,}523$ ($R_9^2 = 0.4746$) – polynomial trend model;

$y_{10} = 11{,}166x^{0.3028}$ ($R_{10}^2 = 0.563$) – power trend model.

Among these models, the power model has the highest $\square^2$ approximation reliability value. The forecast indicators of imports of goods calculated on its basis are given in the last row of **Table 1**. They indicate a decrease in imports of European goods to Ukraine in 2025, followed by a gradual increase in 2026–2027 and reaching a value of 29,229.8 million USD in 2027.

4.2. Obtaining interval forecast values for 2025. At the second stage of the study, we will forecast the export / import indicators of goods between Ukraine and the EU based on the theory of fuzzy sets. The forecasting results are shown in **Fig. 3–4**.

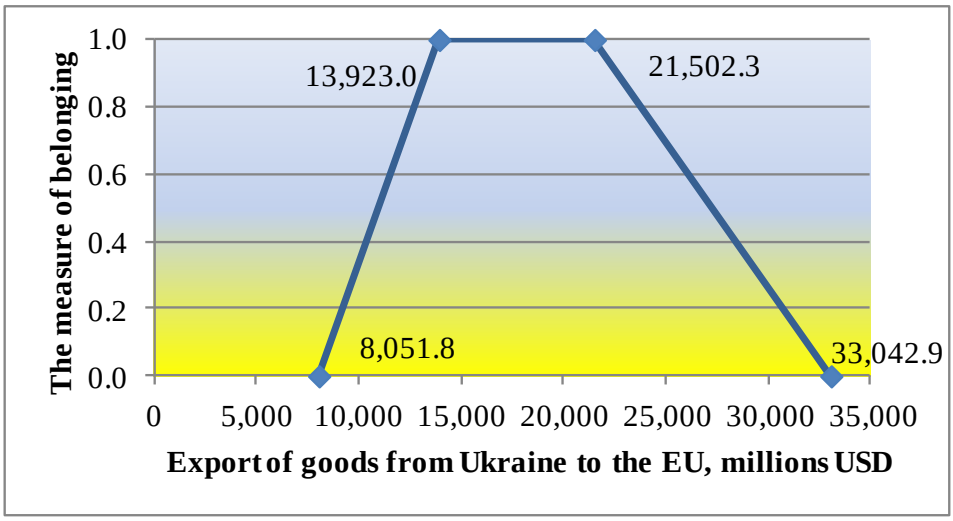

Figure 3. *Trapezoidal fuzzy interval of exports of goods from Ukraine to the EU, million USD*

Note. Generated by the author based on **Table 1**.

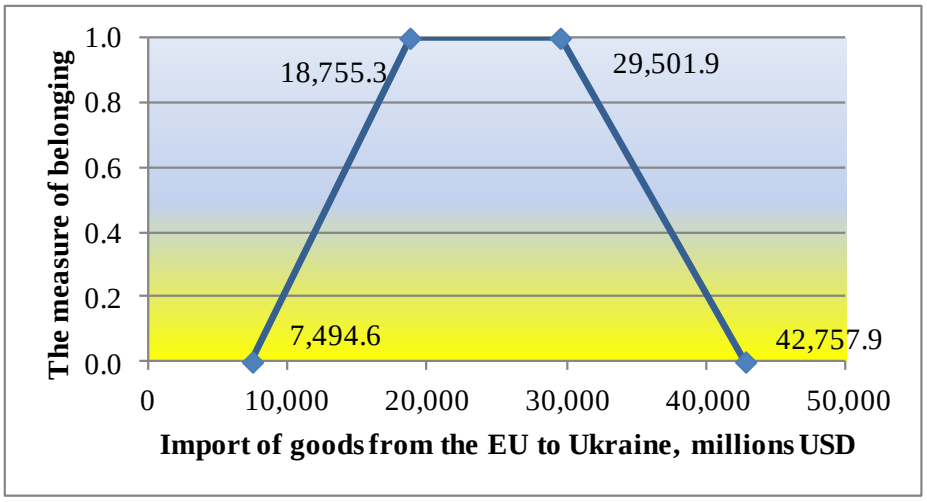

Figure 4. *Trapezoidal fuzzy interval of imports of goods from the EU to Ukraine, million USD*

Note. Generated by the author based on **Table 1**.

In **Fig. 3** and **4**, the upper base of the trapezoid is the optimistic interval; the sides of the trapezoid are the pessimistic interval.

That is, in 2025, the most likely value of exports of goods from Ukraine to the EU is within the range of 13,923.0–21,502.3 million USD, less likely – in the ranges of 8,051.8–13,923.0 million USD and 21,502.3–33,042.9 million USD.

In turn, for imports of goods from the EU to Ukraine, the most likely forecast value is within the range of 18,755.3–29,501.9 million USD, less likely – in the ranges of 7,494.6–18,755.3 million USD and 29,501.9–42,757.9 million USD.

4.3. Grouping of EU countries by indicators of trade in goods with Ukraine under martial law (2022–2024). In the third stage of the study, we will group EU countries by indicators of trade in goods with Ukraine using ABC analysis.

Table 2 shows the distribution of 27 EU countries by the indicator of exports of goods from Ukraine for 2022–2024. The table calculates the share and accumulated share of each state in the total volume of exports of Ukrainian goods to the EU. It also determines the group into which EU countries fall according to the results of the ABC analysis. Note that the countries are arranged in descending order of the indicator of exports of goods.

Table 2.

Geographical structure of foreign trade in goods of Ukraine with EU countries (exports), million USD

Country	2022	2023	2024	In general, for the years 2022–2024	Share in the total volume of exports, %	Accumulated share in the total volume of exports, %	Group ABC
Poland	6,653.0	5,072.1	4,708.9	16,434.0	21.22	21.22	A
Romania	3,855.8	3,863.0	1,760.8	9,479.7	12.24	33.46	A
Germany	2,264.7	2,411.4	2,840.8	7,516.8	9.71	43.17	A
Spain	1,572.3	2,010.4	2,863.5	6,446.1	8.32	51.50	A
Italy	1,647.3	1,562.5	1,935.7	5,145.5	6.64	58.14	A
Netherlands	1,540.8	1,527.3	1,990.4	5,058.4	6.53	64.67	A
Hungary	2,270.9	1,382.5	1,152.1	4,805.5	6.21	70.88	A
Slovakia	1,506.8	1,102.9	942.6	3,552.3	4.59	75.47	A
Bulgaria	1,426.1	908.0	1,133.6	3,467.7	4.48	79.94	A
Czechia	1,252.0	1,034.9	919.8	3,206.7	4.14	84.09	B
Austria	822.1	635.0	626.9	2,084.0	2.69	86.78	B
Lithuania	662.1	652.8	594.7	1,909.6	2.47	89.24	B
France	586.0	541.3	737.8	1,865.1	2.41	91.65	B
Belgium	466.7	377.9	854.4	1,699.0	2.19	93.85	B
Latvia	297.0	336.0	303.9	936.9	1.21	95.06	C
Greece	184.1	258.3	409.2	851.6	1.10	96.15	C
Denmark	231.3	240.8	211.6	683.7	0.88	97.04	C
Portugal	135.7	225.6	235.9	597.2	0.77	97.81	C
Cyprus	54.8	107.9	139.8	302.5	0.39	98.20	C
Estonia	125.4	97.3	75.5	298.3	0.39	98.58	C
Sweden	78.0	81.9	95.5	255.5	0.33	98.91	C
Croatia	73.5	87.4	65.1	226.0	0.29	99.21	C
Slovenia	59.0	65.0	64.0	187.9	0.24	99.45	C
Finland	61.7	45.1	46.1	152.8	0.20	99.65	C
Malta	9.7	70.1	55.2	135.1	0.17	99.82	C
Ireland	44.9	14.9	61.2	121.0	0.16	99.98	C

Country	2022	2023	2024	In general, for the years 2022–2024	Share in the total volume of exports, %	Accumulated share in the total volume of exports, %	Group ABC
Luxembourg	9.2	3.4	5.1	17.7	0.02	100.00	C
EU 27	27,890.7	24,715.9	24,829.8	77,436.4	100.00		

Note. Compiled by the author based on statistical data (State Statistics Service of Ukraine, 2025).

Thus, Group A included nine EU countries: Poland, Romania, Germany, Spain, Italy, the Netherlands, Hungary, Slovakia, Bulgaria. During 2022–2024, Ukrainian goods were exported to each of them in the amount of USD 3.47 billion to USD 16.43 billion. The share of these countries in the total amount of Ukrainian exports of goods to the EU ranged from 4.48 to 21.22%.

Group B united five EU countries: Czechia, Austria, Lithuania, France, Belgium. The volume of purchases of Ukrainian goods by them ranged from USD 1.70 billion to USD 3.21 billion. Their contribution to the total amount of exports of Ukrainian goods to the EU ranged from 2.19 to 4.14%.

Group C included 13 EU countries: Latvia, Greece, Denmark, Portugal, Cyprus, Estonia, Sweden, Croatia, Slovenia, Finland, Malta, Ireland, Luxembourg. To each of them, exports of goods from Ukraine were less than USD 940 million. Their share in the total amount of exports of Ukrainian goods to the EU ranged from 0.02 to 1.21%.

Table 3 shows a similar distribution of 27 EU countries by the indicator of imports of goods to Ukraine for 2022–2024.

Here, group A united ten EU countries: Poland, Germany, Bulgaria, Italy, Czechia, Romania, Slovakia, France, Greece, Hungary. During 2022–2024, goods worth from USD 4.03 billion to USD 19.07 billion were imported from these countries. The share of these countries in the total amount of imports of goods from the EU ranged from 4.23 to 20.01%.

Table 3.

Geographical structure of foreign trade in goods of Ukraine with EU countries (imports), million USD

Country	2022	2023	2024	In general, for the years 2022-2024	Share in the total volume of imports, %	Accumulated share in the total volume of imports, %	Group ABC
Poland	5,491.4	6,589.8	6,990.1	19,071.2	20.01	20.01	A
Germany	4,563.0	5,076.8	5,386.2	15,026.0	15.76	35.77	A
Bulgaria	2,082.7	2,219.2	2,360.1	6,662.0	6.99	42.76	A
Italy	1,801.4	2,280.2	2,576.2	6,657.8	6.98	49.75	A
Czechia	1,464.8	1,790.9	2,476.5	5,732.2	6.01	55.76	A
Romania	1,503.2	1,655.1	1,710.8	4,869.2	5.11	60.87	A
Slovakia	988.7	1,677.5	2,001.1	4,667.3	4.90	65.77	A
France	1,232.7	1,760.9	1,621.0	4,614.7	4.84	70.61	A
Greece	756.1	1,374.1	2,067.1	4,197.3	4.40	75.01	A
Hungary	1,022.3	1,387.2	1,620.6	4,030.1	4.23	79.24	A
Lithuania	1,323.1	1,306.0	1,194.4	3,823.5	4.01	83.25	B
Netherlands	1,091.3	1,037.1	916.7	3,045.1	3.19	86.44	B
Spain	702.4	887.6	853.6	2,443.6	2.56	89.01	B
Sweden	514.8	794.6	994.7	2,304.1	2.42	91.43	B
Belgium	539.9	663.4	674.2	1,877.5	1.97	93.40	B
Austria	515.3	537.8	625.0	1,678.2	1.76	95.16	C
Finland	239.2	283.9	241.0	764.2	0.80	95.96	C
Denmark	240.3	250.8	273.0	764.1	0.80	96.76	C
Slovenia	248.1	242.0	265.0	755.1	0.79	97.55	C
Latvia	235.9	280.0	197.0	713.0	0.75	98.30	C
Ireland	147.2	196.0	245.8	588.9	0.62	98.92	C
Estonia	95.7	128.3	122.1	346.2	0.36	99.28	C
Croatia	67.9	82.5	112.6	262.9	0.28	99.56	C
Portugal	60.8	70.2	81.3	212.4	0.22	99.78	C
Cyprus	14.6	47.8	80.6	143.1	0.15	99.93	C
Luxembourg	11.0	13.5	14.7	39.2	0.04	99.97	C
Malta	8.1	7.9	11.4	27.4	0.03	100.00	C
EU 27	26,962.4	32,641.4	35,713.3	95,317.1	100.00		

Note[1]. In some cases, the sum of the components may not equal the total due to rounding of data.
Note[2]. Compiled by the author based on statistical data (State Statistics Service of Ukraine, 2025).

Group B united five EU countries: Lithuania, the Netherlands, Spain, Sweden, Belgium. The volume of purchases of their goods by Ukraine ranged from USD 1.88 billion to USD 3.82 billion. Their contribution to the total amount of imports of goods from the EU ranged from 1.97 to 4.01%.

Group C included 12 EU countries: Austria, Finland, Denmark, Slovenia, Latvia, Ireland, Estonia, Croatia, Portugal, Cyprus, Luxembourg, Malta. From these countries, imports of goods to Ukraine were less than USD 1.70 billion. Their share in the total amount of imports of goods from the EU ranged from 0.03 to 1.76%.

According to the results of the ABC analysis of EU countries by the value of export-import operations with Ukraine, in both cases, the following seven EU countries were included in Group A: Poland, Romania, Germany, Italy, Hungary, Slovakia, Bulgaria. That is, under martial law, Ukraine's largest trading partners in terms of export-import of goods are neighboring countries with which Ukraine has land or sea borders – Poland, Romania, Hungary, Slovakia, Bulgaria, as well as the countries of the "Big Seven" (G7) – Germany, Italy.

5. Discussion. The Ministry of Economy, Environment and Agriculture of Ukraine (August 2025) identified the stimulating and restraining factors of Ukraine's export-import operations:

1) key factors stimulating exports: continuation of the Ukrainian Sea Corridor and use of alternative logistics routes; introduction of a mechanism for insuring ships against military risks; relocation of export-oriented enterprises; activation of the work of the Export Credit Agency; extension of: "transport" visa-free travel with EU countries until Dec. 31, 2025; preferential EU regime for imports of Ukrainian steel and iron after Jun. 6, 2025;

2) main restraining factors for exports: continuation of hostilities on the territory of Ukraine; loss of industrial enterprises due to destruction, damage and temporary occupation by the russian federation; increased attacks on Ukraine's transport infrastructure; complication and increase in the cost of export logistics; termination of the "goods" visa-free regime with EU countries and continuation of restrictions by some EU countries on the import of Ukrainian agricultural products; decrease in agricultural exports; unfavorable price conditions for the main Ukrainian export goods; changes in customs regulations and domestic policies of individual countries;

3) key incentives for import growth: growing needs for the import of critically important goods (military and defense products, mechanical engineering, pharmaceutical segment, food, etc.), international support for Ukraine through the provision of humanitarian aid and equipment for infrastructure reconstruction, reorientation of imports to products of high and medium technological levels;

4) main constraining factors for imports: continuation of hostilities on the territory of Ukraine, existing logistical restrictions and high logistics costs; decrease in purchasing power and forced migration of the population abroad; limited financial resources for the purchase of imported high-tech products.

Of course, this list can be supplemented with other elements. In general, we see that, despite the martial law, the Ukrainian economy is adapting to new challenges and threats, domestic enterprises are

adapting to modern realities. To deepen the research, it is desirable to conduct a structural analysis of Ukraine's export-import operations with each EU country.

6. Conclusions. During 2004–2024, Ukraine demonstrated an increase in foreign economic cooperation with the EU. However, the growth of trade was not smooth and uniform. In particular, the peaks of exports of goods fell on 2008, 2011, 2019 and 2022, declines – on 2009, 2015, 2020, 2023; peaks of import supplies of goods fell on 2008, 2013, 2021, 2024, declines – on 2009 and 2015.

Reasons for the decline in exports / imports in the specified periods: the global financial crisis of 2008, the russian armed invasion of Crimea and eastern Ukraine in 2014, the spread of the coronavirus disease in 2019, the full-scale invasion of the russian federation into the territory of Ukraine in February 2022.

Consequences: reorientation to online trade, search for new product sales markets, state support for export activities.

The polynomial trend model of the form $y=30.485x^2+57.141x+11,923$ ($R^2=0.7428$) indicates a significant increase in exports of Ukrainian goods to the EU in 2025–2027 and reaching a value of USD 30,853.7 million in 2027. In turn, the power-law trend model of the form $y=11,166x^{0.3028}$ ($R^2=0.563$) predicts a decrease in imports of European goods to Ukraine in 2025, followed by a gradual increase in 2026–2027 and reaching a value of USD 29,229.8 million in 2027. However, it is worth noting that the values of the R^2 approximation reliability are not sufficiently large due to frequent changes in the direction of movement of the dynamics indicators.

To improve the quality of point forecasts, trapezoidal fuzzy intervals of exports of goods from Ukraine to the EU and imports of goods from the EU to Ukraine were constructed, which predict in 2025 the most probable value of exports within the range of USD 13,923.0–21,502.3 million, and imports within the range of USD 18,755.3–29,501.9 million.

Under martial law (2022–2024), the largest trading partners of Ukraine with the EU in terms of export-import of goods, according to the results of ABC analysis, were neighboring countries and the countries of the "Big Seven" (G7): Poland (exports – USD 16.43 billion, imports – USD 19.07 billion), Romania (exports – USD 9.48 billion, imports – USD 4.87 billion), Germany (exports – USD 7.52 billion, imports – USD 15.03 billion), Italy (exports – USD 5.15 billion, imports – USD 6.66 billion), Hungary (exports – USD 4.81 billion, imports – USD 4.03 billion), Slovakia (exports – USD 3.55 billion, imports – USD 4.67 billion), Bulgaria (exports – USD 3.47 billion, imports – USD 6.66 billion).

We see further research directions in the implementation of the following tasks:

1) analyze the dynamics of trade in goods between Ukraine and each EU country for 2004–2025;

2) conduct a comparative analysis of the structure of exports and imports of goods between Ukraine and EU countries in 2021 and 2025;

3) conduct trend forecasting modeling of the dynamics of export-import operations between Ukraine and each EU country for 2026–2028;

4) forecast indicators of exports and imports of goods between Ukraine and 27 EU countries using trapezoidal fuzzy sets;

5) build a probabilistic-automatic model for simulation modeling of foreign trade in goods of Ukraine with EU countries;

6) to plan a project for publishing a scientific monograph on foreign trade in goods of Ukraine with 27 EU countries using Microsoft Office Project;

7) to build a probabilistic-automatic model for simulation modeling of foreign trade in agricultural products of Ukraine with EU countries.

The practical significance of the study lies in the possibility of using the results of the study for planning Ukraine's foreign trade operations and selecting partner countries.

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Key methods of conducting hybrid warfare in the modern information space. Approaches to information technologies in relation to hybrid warfare

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ABSTRACT

In the contemporary landscape of global conflicts, propaganda and disinformation have emerged as powerful tools within hybrid warfare, aimed at influencing public perception, destabilizing societies, and undermining adversaries. Propaganda can manifest in various forms, ranging from overt political messaging to subtle sociological influences disguised as private opinions. This complexity necessitates a clear understanding of the strategies and tactics employed in information warfare. Notably, the "4D" strategy—comprising denial, distortion, distraction, and dismay—provides a conceptual framework to analyze how propaganda functions and how it can be countered. Complementing this, the "4f" tactics encapsulate the common methods of fabricating news, media, experts, and events to mislead and manipulate audiences. This article aims to examine these strategies, uncover their psychological underpinnings, and explore their application in the digital age, particularly through social media platforms, which have become a significant battleground for information influence.

KEYWORDS: Propaganda , Disinformation , Hybrid Warfare , Psychological Warfare , Information Operations , 4D Strategy , 4f Tactics , Fake News , Information Manipulation , Social Media Influence, Information Security , Media Distortion , Strategic Communication

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1. Formulation of the problem. Propaganda and disinformation have become central instruments in contemporary hybrid warfare, shaping public opinion, destabilizing societies, and undermining adversaries without direct military confrontation. These tools, leveraging psychological manipulation and media influence, pose serious threats to national security, democratic institutions, and social cohesion worldwide. In the context of modern conflicts, especially illustrated by recent geopolitical tensions, propaganda operates in multiple forms—political, explicit, sociological, and invisible—often blending fact and fiction to create persuasive but misleading narratives.

This article examines key frameworks used to understand and counter propaganda, focusing on the "4D" strategy—denial, distortion, distraction, and dismay—and the "4f" disinformation tactics, which include fake news, fake media, fake experts, and fake events. By analyzing the psychological mechanisms exploited by these approaches and their application through traditional and social media, the article reveals how information warfare leverages emotional appeals, cognitive biases, and network effects to manipulate target audiences.

Existing literature addresses elements of propaganda and information operations, yet this article distinguishes itself by integrating both theoretical models and practical insights from recent hybrid conflicts. Unlike broader cybersecurity or media studies perspectives, it offers a focused analysis of propaganda's operational tactics and psychological underpinnings within the evolving information environment. It also highlights the critical role of social media platforms as amplifiers of disinformation and the challenges of detecting and countering sophisticated influence campaigns.

By bridging academic theory and real-world case studies, this article provides valuable guidance for security experts, policymakers, and civil society stakeholders aiming to develop effective countermeasures against information warfare. Its comprehensive approach to understanding propaganda's multifaceted nature and its strategic deployment in hybrid conflicts makes it a significant contribution to the field of information security and psychological operations.

2. Analysis of recent research and publications. Recent scholarship on information warfare highlights the growing centrality of propaganda and disinformation in modern conflicts. Authors such as Thomas Rid (Rid, 2016) and Christopher Paul (Paul, 2011) emphasize that hybrid warfare increasingly relies on manipulating perceptions rather than direct military engagement. Studies in Journal of Information Warfare and International Security demonstrate how state and non-state actors employ information operations to destabilize adversaries and weaken social cohesion.

At the same time, research by NATO StratCom (NATO StratCom, 2021), the European External Action Service (European External Action Service, 2022), and various cybersecurity institutes has mapped specific disinformation campaigns, particularly in the context of the Russia–Ukraine conflict.

These analyses reveal the use of coordinated inauthentic behavior, fake media outlets, and digital amplification strategies that blend fact and fiction. The findings underscore the role of social media platforms as accelerators of propaganda, complicating efforts to trace origins and assess impact.However, while much of the literature addresses either strategic frameworks or technical detection, fewer works provide integrated analyses combining psychological mechanisms with practical countermeasures. This article seeks to bridge that gap by connecting theoretical models, such as the "4D" and "4f" frameworks, with recent empirical evidence. In doing so, it contributes to a more holistic understanding of how disinformation operates within the broader spectrum of hybrid warfare.

3. The purpose of the article. The purpose of this article is to analyze the role of propaganda and disinformation as key instruments of contemporary hybrid warfare. It examines psychological mechanisms and operational tactics, including the "4D" strategy (denial, distortion, distraction, dismay) and the "4f" tactics (fake news, fake media, fake experts, fake events). By bridging theoretical models with real-world case studies, the article highlights how information operations exploit cognitive biases and social media amplification. Ultimately, it aims to provide policymakers, security experts, and civil society with practical insights for developing effective countermeasures against information warfare.

4. Presenting main material. Modern hybrid warfare is not just a new stage in the development of the art of war and the use of modern hybrid technologies for destruction and domination; it takes place in a fundamentally new civilizational, cultural, and social environment (Ruschenko et al., 2015), and therefore it is advisable to focus on the consideration of the basic methods associated with conducting hybrid warfare in the modern information space and the approaches to information technologies applied by the aggressor state in hybrid warfare. The development of science and technics, information, and communication technologies opens up virtually unlimited possibilities of hidden non-violent manipulative influence on a person, society, and the state. It is important to understand that hybrid warfare is not only a military conflict but also a war of ideological constructors.

The vast majority of experts on hybrid warfare agree that the leading component of hybrid warfare is information warfare. Thus, the constant development of the mass communication system leads to the erasure of borders and wide opportunities for manipulative influence on the consciousness of the population of the rival state with the imposition of its own ideas of the aggressor state (Feskov, 2016).Throughout the hybrid warfare, importance is paid to the information struggle, where the main actors are the media and the Internet. At the same time, the elements of information warfare include: obtaining intelligence information, disinformation, psychological operations, cyber-attacks on information infrastructure, infection with computer viruses of enemy computer networks, as well as appropriate

counteraction measures to protect their own information resources (Trebin, 2014).Today, in the course of hybrid warfare, the scope and tasks of international information warfare are significantly expanded, specialized organized formations of information and psychological struggle are created, and even cyber forces are created, capable of coordinating and centrally conducting information operations and campaigns (Lisetsky et al., 2021).On September 2, 2016, the Czech counterintelligence service BIS reported that the Russian special services were waging an information warfare in the Czech Republic, trying to create a network of puppet cells and propagandists on the territory of the Czech Republic, which the Russian Federation could use to destabilize the country (Razumkov Centre, 2016). In its annual report, BIS indicated that Russia seeks to influence the Czech media by covering the role of the Russian Federation in the Ukrainian and Syrian conflicts. And on November 29, 2016, the head of German intelligence, BND, Bruno Kahl, said that hackers and trolls from Russia influenced the US elections; their target was the German elections in 2017. In particular, he noted that "Europe is in the focus of such subversive actions, and Germany, especially" (Razumkov Centre, 2016).It should be noted that the term "information warfare" was used one of the first by Thomas P. Rona in the analytical report for the Boeing Company on "Weapons Systems and Information Warfare" in 1976 (Feskov, 2016). From that moment on, the understanding *that information can be a weapon* begins to be formulated. An avalanche-like flow of information (and disinformation) can harm any state (up to a coup d'etat and overthrow of the power).The most well-known definition of information wars is: "This is a type of conflict in which the tasks of the opposing parties are to protect their own information and information systems, manipulate the enemy's information or distort it, as well as limit the ability of the opposing party to access and process information" (Aslam, 2020).

Also, most often, ***information warfare is understood as an interstate confrontation in the information sphere, which is conducted with the use of information weapons and means of information and psychological influence.*** Such a confrontation can occur both in wartime and in peacetime. In this case, the object of influence becomes another state, and the influence is carried out on the population of this state and on world public opinion. The world has seen many examples of information wars. Now, against the background of Russia's military operations in Ukraine, Russia is actively conducting an information war aimed at the population of Ukraine, primarily in the occupied territories.

The purpose of information warfare is to manage the process of changing people's consciousness, their worldview, and their attitude toward society and the state (Loishyn et al., 2021). At the same time, the negative result of the information war is the loss of the target state's own will by the population and its sovereignty by the state. This has always been the goal of any conqueror, but now the same can be achieved in a "soft" way (even the term "soft power" has introduced by the American

political scientist, Joseph S. Nye, Jr. But "soft" tools in some cases can be more dangerous than "hard" ones because the victim of soft coercion may not be aware of the deception and may see a negative result for himself only when it is no longer possible to change events. At the same time, such information weapons have a massive capacity for destruction.

There are two leading directions of influence for information weapons (Loishyn et al., 2021):

1) influence on the enemy's information tools and systems. The first direction is also called "***cyber warfare***," when the technical equipment and software systems of the enemy state are subjected to cyber-attacks.

2) ***influence on people's consciousness***. The second direction is the old methods of propaganda and agitation, counter-propaganda and counter-propaganda, which have recently been greatly improved in terms of sophistication and mass influence on people's minds.

At the present stage, information warfare appears in the form of a network-centric war, the task of which is the so-called ***identity***, that is, the complete destruction of the national-state-civil identity of the rival country. Identification consists of convincing the majority of the people of their country, or even a part of the enemy's people, of the enemy's evil intentions regarding their actions (Doroshkevich, 2015). The object of such information warfare is mass and individual consciousness. It should be noted that information influence can be carried out both against the background of information noise and in conditions of an information vacuum (Doroshkevich, 2015).

The basic tools of hybrid warfare include various information means (Zdioruk, 2022):

- tools for military-political disorientation of the enemy. Thus, the development of global communication networks, as well as digital media technologies, allows cyberspace to carry out a negative information and psychological impact on the personnel of the State Defense Forces to undermine the moral and psychological state, which, in turn, affects the achieved level of state defense capability (Sirotenko, 2020).
- misinformation about one's own information resources;
- actions aimed at damaging or blocking data transmission channels in order to disorient and disorganize;
- creating an atmosphere of tension in the society of the target state from the constant expectation of strikes and a massive offensive along the entire front line;
- influence on the mass consciousness of the population of the rival state in order to demoralize and spread panic.

The key methods forp conducting information and psychological warfare and carrying out destructive information influences include: propaganda, spreading rumors, provocations, disinformation, manipulation, suggestion, physical blocking of communication and telecommunications systems, psychological and psychotropic pressure, diversification of public consciousness (public opinion), intimidation, etc. (Giegerich, 2016). For example, the purpose of propaganda by the aggressor state is to incite social hostility, escalate social conflicts, and escalate disputes in the society of the target state.

Disinformation (or misinformation) is one of the ways to manipulate information. This is misleading someone by providing incomplete or unnecessary information or distorting some of the information or context. The goal of such influence is always the same – the opponent must act as it is necessary for the manipulator (Kharitonenko, 2018). The action of the object to which disinformation is directed may consist in making the right decision for the manipulator or in refusing to make a decision that is unprofitable for the manipulator.

Disorientation and falsification are types of misinformation that can mislead a person**.**

Disinformation and manipulation of information is achieved through (Vassileva et al., 2018):

- *biased presentation of facts*—biased coverage of facts or other information about events using specially selected truthful data. Mainly with the help of this method, specially formed information is fed in a dosed manner, to an ever-increasing voltage;
- *misinformation "from the opposite"*—occurs by providing truthful information in a distorted form or in a situation where it is perceived by the object of influence as untrue. As a result, there is a situation when the object of influence actually knows truthful information about the intentions or specific actions of the opposite party, but perceives it inadequately, is not ready to resist negative influence;
- *terminological "mining"*—consists in distorting the primary correct essence of fundamentally important, basic terms and interpretations of a general ideological and operational-applied nature;
- *"Gray" disinformation* involves the use of the synthesis of truthful information with disinformation;
- *"Black" misinformation* is the use of mostly false information.

Diversification of public opinion aims to disperse the attention of the ruling elite of the state to various artificially emphasized problems and, thereby, distract it from solving the priority tasks of socio-political and economic development in order to ensure the normal functioning of society and the state (Aslam, 2020).

- ***Forms of diversification of public opinion are*** (Gorban, 2015): destabilization of the situation in the state or its individual regions;
- intensification of the campaign against the political course of the ruling elite of the state and its individual leaders by various international institutions;
- initiating anti-dumping campaigns and other scandalous lawsuits;
- application of international sanctions for other reasons.

Psychological pressure is also a common method of influencing people's minds. Its use provides for blackmail, threats of persecution, repression, murder, etc., bringing to the object information about real or far-fetched threats and dangers, committing terrorist acts, and sabotage (Giegerich, 2016). A common form of psychological pressure is ***telephone terrorism***, that is, calls with information about the alleged mining of public places, railway stations, fraudulent actions against citizens of a rival state in order to cause these citizens dissatisfaction with the actions of the authorities and management of this state, and so on.

The key technologies of psychological pressure include (Zdioruk, 2022): fraud, bluffing, political games and hoaxes, manipulative actions, provocations, psychological and covert operations, political games and advertising campaigns, disinformation, rumors, etc.

The spread of rumors also acts as a special technology of information warfare. Thus, the lack of information is immediately compensated by rumors: the vacuum of information in official sources leads to the instant emergence of rumors in unofficial information channels.

At the same time, ***the most common method of information and psychological warfare is propaganda*** (lat. propaganda, literally "subject to dissemination (faith)," from Lat. propago, "I spread"), which involves spreading among the masses and explaining to the population any beliefs, ideas, teachings, knowledge, and appeals to the feelings of the mass audience, repeating the same type of attitudes constantly and repeatedly (Nikolic, 2018; Fisenko, 2016). In other words, propaganda is a form of communication aimed at spreading in society a worldview, theory, statement, facts, arguments, rumors, and other information to influence public opinion in favor of a certain common cause or public position (Krikun, 2022). Propaganda can be classified according to the source and nature of the message and have a certain color and direction depending on the sources of information and purpose (Hrynchenko, 2018).

To counteract negative propaganda and manipulation, you need to understand how the processes of structureless management in society take place, know the methods of processing information to search for and select reliable data, and know methods of countering negative forms of information influence on society.

Thus, **the main methods of propaganda include**: the formation in the mass consciousness of the image of the victim by the person involved, who is actually a criminal; shifting responsibility and attributing their own crimes to the opponent; ignoring the facts; and branding all those who do not agree with the propaganda (Vassileva et al., 2018). Thus, propaganda is an effective means of manipulating human consciousness.

Methods of enemy propaganda are outright lies, distortion of facts, insinuations, slander, information sabotage, provocations, distortion of historical events, etc. (Razumkov Centre. 2016).

For the first time, the role of propaganda was analyzed by the American political scientist Harold Dwight Lasswell, who defined it as a special type of information and psychological weapon that affects the moral (mental) state of the enemy (Hryshchuk, R. et al., 2018].

Among the principal goals of propaganda, Harold Dwight Lasswell defines (Nikolic, 2018):

- inciting hatred towards the enemy;
- maintain friendly relations with allies;
- maintaining good relations with neutral countries and, if possible, trying to cooperate with them;
- demoralizing the enemy.

Scientists distinguish between ***vertical*** (the classic version of propaganda: the information flow goes from top to bottom with a passive reaction of the audience) and ***horizontal*** (implemented in a certain social group and does not go from above; in this situation, all participants are equal, there is no leader among them, and therefore information is perceived with maximum trust) ***propaganda*** (Vassileva et al., 2018). Modern propaganda is horizontal; it "mimics either science, education, or the opinion of a particular person, but for some reason it is broadcast to millions" (Pocheptsov, 2016). That is, the reference to propaganda has been fundamentally erased from propaganda today.

Propaganda can also be "political," "explicit" (promoted on behalf of the state and imposing a certain ideology), "sociological," or "invisible" (presented under the guise of private opinions and aimed at forming a certain worldview and values) (Hetmanchuk, 2019).

Theorists and practitioners of countering propaganda distinguish the so-called "4D" strategy: dismissing, distorting, distracting, and dismaying (denial, distortion, disorientation, and intimidation), as well as the ***formula of the disinformation campaign "4f-tactics,"*** which marks: fake news, fake media, fake experts, and fake events (fake news, fake media, fake experts, and fake events) (Krikun,

2022). The essence of the "4D strategy" is to use the features of communication psychology in social groups. In its original form, this strategy was outlined by Ben Nimmo, a co-researcher of the Central Institute for European Policy, in a publication on the Institute's resources and reprinted by many other sites in translations [StopFake, 2025].

The "4D strategy" of propaganda contains the following links (Kharitonenko, 2018):

1) ***The rejection of the charge*** is the first link in the strategy. This approach of the aggressor state to negative reports or comments is to refute them either by denying statements on the ground (among consumers of information) or by slandering the person who voices them (the source of information), questioning his authority and the significance of the information itself.

2) ***Information distortion*** consists of the fact that the content of information can change in the process of its transmission through various channels from the source to the consumer. The degree of distortion is directly proportional to the number of channels and transmission links through which the message passes: the more participants gain access to this or that information and transmit it to other people, the more the final version of the information differs from the original one. This is the most common phenomenon in modern mass media. It is caused by a number of closely related reasons, ranging from a decrease in the quality of an information product due to a decrease in funding while reducing the time for preparing news content in the face of fierce competition from manufacturers to increased censorship by state bodies (Hetmanchuk, 2019).

The reasons for information distortion may be as follows (Kharitonenko, 2018):

- translation problems and polysemy create the possibility of different interpretations of the same message;
- differences in the level of education, intellectual development, and professionalism;
- non completeness of information due to restricted access to it or deliberate submission not in full, which leads to speculation and the addition of unverified facts and assumptions;
- insufficient level of qualification of the employee presenting information;
- emotional stress;
- prejudice against the persons or phenomena referred to in the message.

3) ***Disorientation of the recipient of information***—answering a question with another, and logically incorrect question, or providing an excessive amount of information that is not relevant to the case, true or false, in order to distract attention from the essence of the issue under consideration.

4) ***Intimidation***—intimidation of the enemy by the threat of failure of his plans, spreading anxiety among the opponent's supporters, using internal contradictions and opposition within the state that is the object of aggression. Thus, in recent years, intimidation as a method of Interstate Blackmail has acquired significant proportions.

They also distinguish the so-called "4f tactics" of disinformation (Hrynchenko, 2018):

1) ***Fake news*** is an informational hoax — the deliberate dissemination of untruths or half-truths in social media and traditional media in order to mislead a person for financial or political gain. Fake news is created, often using catchy headlines or completely fabricated published materials to increase readership and citation. The main reason for using such methods in normal circumstances is the profit from the customer of the material or from cheating clicks on the resource, with subsequent profit from the placement of advertising materials. During the election race, the use of fake news is usually widespread. And within the framework of the information war, fake news is used as a kind of "weapon" with which the opposing sides are trying to gain an advantage.

2) ***Fake media resources***: information resources created for the purpose of spreading false information on a certain topic.

Characteristic features of fake media resources are (Kyrychenko, 2023):

- ☐ registration and placement of hosting services outside the region they are supposedly focused on;
- ☐ specifying contact details that are not typical for the region;
- ☐ atypical speech expressions and alien behavioral patterns in the presentation of the material;
- ☐ availability of multiple resources that are completely similar in design, theme, and content;
- ☐ content that is not created but copied from news aggregators;
- ☐ low popularity among the population of the region.

3) ***Fake experts***, fictitious or false authoritative specialists from certain branches of human activity, whose opinion is designed to confirm the significance of certain information or rumors that are not confirmed by pointing to an official source and raise doubts. The development of information technologies has significantly simplified the process of falsifying official identity documents, and social networks have accelerated the process of "legalizing" fake experts.

4) ***Fake events*** are the creation and imposition of a new interpretation of past events on the public or the partial substitution of a sequence of events. The latter process is based on such a concept

as **"*memory conformism,*"** the property of memories of past events to be distorted under the influence of someone else's opinion. When a person discovers that most of the people around them describe a case that they also remember differently, they tend to agree with them. This, in particular, is facilitated by the activity of various thematic groups in social networks, where, under the influence of the social circle, a stereotype of attitudes toward key issues of the present is laid by distorting memories and changing opinions about past events (Kyrychenko, 2023).

It is possible to define such ***methods used in the process of propaganda during hybrid warfare*** (Tkach, 2016):

- establishing trusting relationships with the target audience (by using common and well-established statements, links to authorities, and quotes, etc.);
- creating the illusion of independent mental work (preparing and submitting materials in such a way that the audience has the feeling that they have reached the proposed conclusions completely independently; moreover, they have done serious mental work to make this decision);
- using the image of an encyclopedic author who operates with a huge amount of material and floods the enemy with information (when using full-scale texts of archival materials, interdepartmental correspondence, economic tables and calculations, and other very difficult-to-read texts, the authenticity of which is almost impossible to determine);
- "Drowning in documents"—manipulation of documentary materials, research results, purposeful selection of only those sources that "fit" into the idea, falsification of documents, impossibility of their verification, etc.;
- conscious and purposeful provision of information of intense emotional coloring in order to suppress the processes of rational thinking of the audience exposed to information attack;
- designing and describing events in the media and literature long before something like this happened in reality;
- interpretation and biased commentary on events instead of detailed information about the facts.

If until recently the Internet had a predominantly informational component, then at the present stage it is increasingly gaining strength in propaganda and propaganda influence, characterized by pronounced aggressiveness (Hryshchuk et al., 2018).Traditional mass media are increasingly working with Internet resources as sources of information and a means of influencing the consciousness of citizens.

Information on the web is becoming more and more popular, socially significant, and quickly disseminated.

In the process of analyzing the essence of hybrid warfare, the term "psychological warfare" is also often used, which was first used by the British military historian, J.F.C. Fuller (John Frederick Charles Fuller) at the beginning of the twentieth century in the analysis of the first World War (Aslam, 2020). Later, American researchers borrowed this term and began to use the concept of "psychological operation" or "information operation" in this context (Vassileva, 2018).

The Institute of National Strategic Studies of the United States and some Western experts, analyzing the components of information warfare, distinguish separately the conduct of psychological warfare, the task of which is to manipulate the masses for the purpose of (Zaporozhets, 2017):

- introducing hostile, harmful ideas and views into the public and individual consciousness;
- disorientation and misinformation of the population;
- weakening of certain beliefs and moral foundations;
- intimidation of their people by the image of the enemy;
- intimidation of the enemy with their own power, etc.

The basic tools of information warfare include (Renz, 2016):

1) hiding information;
2) misrepresentation of information;
3) quantitative increment of messages of a certain type;
4) distraction from the important and insignificant.

Each of these tools has a large number of applications and is used differently in text, video, and audio messages.

Information influences through text messages are carried out in this way (Renz, 2016):

1) keeping silence on particular matters;
2) presenting a false fact;
3) a combination of true and false facts and comments;
4) representation of random phenomena as typical and systemic;
5) shifting accents in the message by skipping, selecting manipulative headings, and highlighted quotes;
6) misleading or incorrect reference to the sources of the message (for example, veiled hints of authority — "information from reliable sources");
7) disclosure of facts obtained from unofficial and unreliable sources;

8) use of time discrepancies (using facts about past events to confirm reports about modern realities; mentioning the facts of the past with their distortion based on the fact that no one remembers the details; distorting the chronology of events);

9) silencing messages about important facts with secondary ones or creating a colorful mosaic of messages about current and irrelevant events in order to complicate the recipient's formation of priorities;

10) increase the frequency of playback of messages on the same topic;

11) use of certain irritant words with expressive positive or negative connotations: "truth," "freedom," "democracy," "patriotism," "betrayal," "fascism," "corruption," appeal to feelings and speculation on expectations: "prosperity in the house," "stability," "confidence in the future," "pride in the motherland";

12) use of models (for example, "global problems" or "protection of interests");

13) labeling (for example, "junta" or "country that did not take place");

14) hiding the lack of content or potentially dangerous content of the message behind poetic metaphors — comparisons, hyperbole, rhetorical questions, exclamation sentences, and emotionally colored vocabulary;

15) using verb forms, such as imperative verbs, to encourage direct action ("vote," "don't sleep," "decide");

16) "hypnotizing" recipients with terms, neologisms, and borrowings, the exact meaning of which is often not known not only to the general audience but also to the speakers themselves;

17) obsessive discussion over a certain period of time of a limited number (1-3) of top topics (they are called "ideas of the day," "top topics of the week," "media agenda," etc.);

18) confusion of artistic images and reality (appeal to well-known literary works, films, and works of mass media culture) or the use of mental stereotypes, national symbols, etc.

19) dominance of news of negative or tragic content; intimidation by military, environmental, and economic dangers.

Information influences, with the help of images, video, or audio recordings, are carried out in this way (Kharamurza, 2023):

1) use fragments of past records or any materials about events in another country to illustrate up-to-date news in a country that is a victim of information aggression;

2) presenting a true fragment of the record as an illustration of a manipulative comment;

3) distortion of the content by deleting some fragments;

4) overlay on the video sequence of voice acting, translation, and captions that contain text that was not actually pronounced;

5) representation of the object in a photo or video from an unfavorable angle, aimed at the appearance of disgust, neglect, subconscious antipathy, or laughter;

6) use of the prohibited "25 frames" technologies;

7) appeal to emotions through the use of scale, colors, and images.

The information challenges of hybrid warfare are quite different in nature and have both a local (short-term) dimension, for example, the information occupation of individual regions and the spread of unprecedented amounts of disinformation and propaganda, and a more abstract (long-term) dimension, such as, for example, disillusionment with the mass communication media of the international community (Barovskaya, 2016).

Specific features of information wars are (Kharamurza, 2023):

1) ***polyvector capacity*** (information operations are carried out simultaneously in several directions; the influence is directed against the population located in the conflict zone; against citizens of a hostile country located outside the zone of force influence; within the aggressor state—to justify the aggressive policy; in the international arena—to justify their actions or dissociate themselves from them; search for allies);

2) ***the imperceptible nature of information influence*** and the absence of obvious destruction;

3) ***insufficient predictability of results; delayed results over time***;

4) ***variability of information influences*** and, accordingly, difficulties in rapid response to them;

5) ***influence*** in the vast majority not on material objects but on the intelligence, emotions, and psyche of people;

6) the nature of logistics is ***atypical*** for ordinary armed conflicts (information influences are carried out through radio and television, the Internet, social networks, and communication channels in social communities).

The most important signs of the presence of information influence *today are considered* (Renz, 2016):

1) *high frequency and tendentiousness* in the coverage of certain news; lack of correct discussion of different points of view; giving preference to emotional rather than analytical ways of presenting material in the media;

2) *obsessive drawing of public attention to messages that discredit* (often with the help of falsified data) the image of the state, its political, economic, and scientific spheres, prominent representatives of the state, and facts of history;

3) *the dominance of sensational, scandalous topics in the information space*, which cause an aggravation of internal contradictions and tension in society;

4) *the presence of messages that threaten the life and health of citizens*, promote war, national and religious hostility, change of the constitutional order by force or violation of the territorial integrity of the state, totalitarianism, or Nazism;

5) *publication of identical messages of dubious content in several mass media* with the same dubious reputation at once;

6) *increasing the share of foreign mass media* and mass communication media in the information space of the state;

7) *increasing the number of domestic mass media controlled by foreign citizens* or unknown persons;

8) obsessive retransmission of TV and radio programs, films, and foreign-made music;

9) excessive and unjustified "strengthening" of the personnel of mass media, news agencies, and PR agencies by foreign specialists;

10) creating physical obstacles to the functioning of mass media, especially in the border areas of the state;

11) targeted distribution of computer viruses and special programs capable of destroying, damaging, or intercepting information in global and local computer networks.

For example, ***the process of influencing information on society in social networks occurs according to the following algorithm*** (Kharitonenko, 2018):

1) Instagram, Facebook, etc.) highlighting one social network and *focusing on those messages* (posts) or images (in the case of Instagram, Facebook, etc.) *that represent conflict-causing information*.

2) *Identifying and specifying the focus group or target audience*. Drawing a matrix of states and vectors of shift or transformation of group activity. Simultaneously with these actions, thematic information pools are specified, the structure of verification and reliability sources is evaluated, and modifiers are segmented according to the degree of resonance for the correct sequence of "pumping.".

3) *Working out patterns of behavioral norms*. A list of expected results is constructed, a list of resonance modifiers is selected, a network of verification sources is created, and then a network of resonance control nodes for focus groups is determined.

4) *Combining information into a stream in accordance with the order of presentation*. Information is presented in the direction in which it is convenient to "promote" it in society.

5) *Finding or creating a reason (provocation)* that causes vivid public discontent.

6) *Launch pools of information that generate previous behavior patterns*. Launch trigger pools of information to transform focus groups. The passage of information through nodes is monitored, and,

if necessary, correction modifiers are connected.

7) Further, it is possible to bring people to the streets through social networks.

8) *Launch modifiers for high-quality template transformation*. Control and correction of the vector of formation of activity foci.

By managing such flows of appropriately prepared information, it is possible to manage a certain segment of society, for example, radical groups or associations of citizens with protest moods, who, in a state of emotional excitement, easily and uncritically perceive such information and direct their energy to the right place for the subject of influence at the right time.Currently, at the national and interstate levels, drastic measures to counter information attacks have not yet been developed, which means that in information wars, success will be ensured by increasing the improvement of information technologies. Therefore, it is advisable to continue scientific intelligence for further study and detailed analysis of the main methods of conducting hybrid warfare in the modern information society.

5. Conclusions. The dynamics of propaganda and disinformation in hybrid warfare reveal a complex interplay of psychological manipulation, media distortion, and strategic communication. The "4D" and "4f" frameworks offer critical insight into the mechanisms by which adversaries seek to control narratives and influence both domestic and international audiences. As social media increasingly becomes the primary channel for disseminating information, the challenges of identifying and countering falsehoods grow more intricate. Effective defense against such information threats requires a multifaceted approach that combines awareness, critical analysis, and technological tools to safeguard truth and democratic resilience. Understanding the nuances of propaganda tactics is essential for policymakers, security experts, and civil society to mitigate the impact of information warfare and maintain societal stability in an era dominated by digital communication.

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From Drones to Doctrine: Why Russia's Air War in Ukraine Is a Warning for Europe

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ABSTRACT

This article examines the transformation of Russia's use of drones in the war against Ukraine from improvised tactical employment into a formalised military doctrine. Drawing on primary and secondary open sources, including defense and think tank reports, and media investigations, the study analyzes the growth of Russia's industrial production capacity, tactical innovations, and integration of unmanned aerial vehicles (UAVs) into hybrid warfare doctrine.

This article identifies five key features of Russia's drone doctrine. First, industrial-scale production and distributed supply chains. Second, layered saturation tactics that combine decoys, kamikaze drones, and AI-enabled swarms. Third, tactical adaptations such as jet-powered UAVs and fiber-optic control systems. Fourth, integration of drone operations into hybrid campaigns targeting civilian resilience. Fifth, the Russian systematic use of Ukraine as a testing ground for concepts that could later be used in NATO's eastern flank.

The conclusions indicate that Russia's approach creates substantial vulnerabilities for NATO and EU member states. First, it is the cost asymmetries between inexpensive drones and expensive interceptors that risk eroding Western deterrence. Second, fragmented procurement patterns hinder the development of a unified counter-UAV doctrine. And finally, civil infrastructure remains vulnerable to hybrid pressure.

NATO and EU countries should urgently adopt counter-drone doctrines, stockpile affordable interceptors, expand their electronic warfare capacity, and strengthen civil defense systems. Ukraine's experience offers a unique opportunity for joint learning, but Europe's window to prepare is narrowing.

KEYWORDS: Drones; hybrid warfare; Russia; civilian resilience

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Introduction. Since May 2025, Russia's drone war intensity has reached an intensity and scale that poses severe threats to European security, which European defense planners cannot afford to ignore. On 9 July 2025, just hours after the US administration announced a new package of military aid to Ukraine, Russia launched its most severe and well-coordinated drone attack since the full-scale invasion started (Harvey, 2025). In one single night, over 700 drones combined with rockets were involved in an attack across the country. Some of these were kamikaze Shaheds carrying explosive payloads, others were radar decoys to trigger Ukraine, using costly interceptor launches. Moreover, an increasing proportion were AI-enabled swarms capable of adjusting flight paths and choosing targets without real-time operator control.These recent attacks have not been just destructive to critical infrastructure (e.g., power and transportation) but have also demonstrated a strategic shift in Russia's capabilities to organize complex air campaigns around unmanned aerial vehicles (UAVs) as the pivotal operational component, not merely a secondary element to rocket attacks (Beznosiuk, 2025d). These latest developments indicate an emergence of deliberate doctrine in which drones form the backbone of strike planning that not just merely targets critical infrastructure but aims to undermine social cohesion as part of broader hybrid warfare measures (Beznosiuk, 2025a).

Since the start of the full-scale invasion of Ukraine, Russia has demonstrated a shift from ad hoc Iranian-supplied Shahed attacks to an industrially sustained, tactically diverse, and doctrinally embedded capability. This approach serves as a direct warning that warfare innovations taking place in Ukraine today might be applied elsewhere in Europe in the foreseeable future, and it is essential to examine them and prepare accordingly (Beznosiuk, 2025c). This evolution fits a broader historical pattern where innovations in one war, such as Germany's early combined-arms tactics in 1939 or the US use of precision-guided munitions in Operation Desert Storm in 1991, later became standard features of warfare elsewhere.

The Purpose of the Article . The purpose of this article is to trace how Russia's use of drones in Ukraine has shifted from tactical battlefield tools to a fully structured operational doctrine supported by industrial capacity and tactical innovation. This article examines the key drivers of this transition, assesses how drones are now embedded in Russia's broader hybrid warfare strategy, and analyses the resulting vulnerabilities for Ukraine, NATO, and the EU. By bringing together industrial, tactical, and hybrid-warfare dynamics, this article intends to provide a coherent framework for understanding Russia's drone-centric approach and its implications for European security planning.

Analysis of the Recent Research and Publications. Open-source analysis of Russia's drone program has expanded rapidly since 2022, but most assessments research only isolated elements rather than the wider strategic logic behind Russian use of UAVs. Early reporting focused on Russia's dependence on

Iranian-produced Shahed drones and its initially hindered ability to scale domestic production (Beznosiuk, 2025a; Hinz, 2025). Subsequent work by Ukrainian and international defense outlets has highlighted the rapid industrial expansion across Tatarstan, Udmurtia, and Bashkortostan, along with the emergence of sanctions-evasion networks supplying key electronics and components (Axe, 2025; Denisova, 2024; Beznosiuk, 2025c; GTRKRB, 2025; Global Initiative Against Transnational Organized Crime, 2025).

Technical and tactical reporting documents Russia's shift from basic kamikaze UAVs to a diversified portfolio that includes jet-powered drones, fiber-optic-guided platforms resilient to electronic warfare, airborne relay systems, and AI-enabled swarm coordination (Maksymiv, 2025; MKRU, 2025; RGRU, 2025; Interfax, 2025; TASS, 2025a; Pryhodko, 2025; TopWar, 2025a). Jointly, this analysis demonstrates a pattern of continuous battlefield adaptation, in which battlefield feedback loops facilitate rapid iterations across design, range, survivability, and operational use.Also, new research examines the Russian integration of UAVs into hybrid strike campaigns targeting Ukraine's energy system, logistics, psychological resilience, and mobilisation infrastructure (Beznosiuk, 2025). It sheds light on a shift from episodic strikes to a more systematic pressure intended to degrade both material capacity and civilian morale.

Despite the breadth of available reporting, existing literature generally treats industrial scale, tactical innovation, and hybrid effects as separate domains. Currently, there is no research examining how these components interplay to form an emerging Russian drone doctrine that incorporates mass production, multi-layered strike tactics, and hybrid objectives into a coherent operational model. This article addresses that gap by synthesising these dimensions and analyzing how Russia's drone-centric warfare approach reshapes the threat landscape for Ukraine, NATO, and the EU.

Methodology .This article draws on both primary and secondary open sources from 2024 to 2025. Primary sources include defense industry reports, production data, and official statements from the Russian and Ukrainian governments and industry players. Secondary sources include think-tank publications, media reports, and technical analyses that interpret this information. These sources were selected for their timeliness and relevance to Russian drone production, tactical employment, and the integration of hybrid warfare.The applied method is comparative and interpretive. The article traces Russia's evolution from ad hoc drone use to doctrinal integration, synthesises technical and strategic evidence, and identifies implications for NATO and the EU. While it does not engage in a formal theoretical literature review, the article contributes as an applied, evidence-based policy analysis aimed at informing debates in security and defense policy.

From Tactical Accessory to Core Operational Doctrine

Initially, Ukraine had the edge in drone development and usage, with Russian drone usage relying mostly on conducting reconnaissance and conducting limited attacks against critical infrastructure and in frontline areas (Beznosiuk, 2025c). However, Russia started to catch up in 2023 with a substantial acceleration in drone production in late 2023 and 2024. In 2024, production increased tenfold from 2023 to reach 1.4 million drones (Denisova, 2024), and plans for the 2025 project anticipate a nearly 3-fold increase (Axe, 2025).This production base enabled Russia to integrate drone production into the heart of its operational planning, with drones like Shaheds being increasingly used to probe air defenses and map radar coverage, leading to the subsequent targeting of critical assets. Gerbera-style decoys force defenders to expend high-value air defense munitions (Beznosiuk, 2025a). FPV-guided "mini-Shaheds" conduct precision strikes on armour and logistics, while AI-enabled variants coordinate swarms that penetrate defense lines efficiently with minimal losses.

Since the spring of 2025, Ukrainian air officials have reported that Russia has increasingly used drones in layered sequences, where Shahed-type UAVs often serve as decoys, being flown into known radar arcs to trigger defensive fire, followed by other strike systems exploiting the revealed positions (Defence Express, 2025b). Such tactics have been observed in frontline areas like Kharkiv and, at times, during deeper strikes on cities including Dnipro.Russia's drone strategy has a two-fold approach. The first part involves wearing down both personnel and equipment while maintaining the Ukrainian air-defense staff in a state of permanent readiness (Beznosiuk, 2025b). The second element is a dual-purpose targeting logic of not just achieving conventional military objectives and degrading critical infrastructure, but also eroding civilian morale with the intent to undermine social cohesion within Ukraine. While the first part of this strategy has proven partially successful, as Ukrainian resources have been substantially depleted, the second part is also crucial, considering the extent of moral exhaustion and the limited capacities to shelter the civilian population and provide psychological support.

The Industrial and Supply Chain Backbone

Russia's ability to transition from infrequent drone targeting to subsequent doctrinal incorporation in its military strategy rests on its increasing resilience and growing industrial base.

Alabuga Special Economic Zone in Tatarstan has become one of Russia's central drone manufacturing areas, growing by over 160 hectares since late 2024 and producing multiple classes of UAVs (Hinz, 2025) and (Kohanets, 2025). In this regard, Russia has actively sourced labour not just domestically but also internationally, with numerous workers often deceived and recruited from all across the globe (e.g., Africa, Latin America, and Asia) under contracts that frequently result in coercive employment conditions (Global Initiative Against Transnational Organized Crime, 2025). The Russian

government recently announced plans to bring in 25,000 North Korean workers to ramp up production further and address potential labour shortages (Defence Express, 2025a).

Overall, Russia employs a geographically distributed drone production model to maximize efficiency and minimize security risks. While Alabuga serves as a focus area for mass production, a network of drone factories in Udmurtia and Bashkortostan produces airframes and other components (GTRKRB, 2025). This dispersion makes the network significantly harder to neutralize and aligns with the doctrine's emphasis on redundancy and adaptability. Moreover, the Russian leadership has actively worked to secure its supply chains by overcoming all sanctions. It has methodically invested in building new facilities, domestically engineered lithium-ion battery production at the UAS "Samara" innovation centre in Tolyatti (Interfax, 2025), and high-quality composite propellers and rotor blades for drones of all sizes in Novosibirsk (TASS, 2025). The Russian government has also invested in the development of Rosel's satellite-independent navigation system for drones, designed to function in GPS-denied environments and withstand cyber and electronic warfare (Rostec, 2025). All of the above recent investments reduce reliance on foreign suppliers. Furthermore, Russia has also sourced numerous components via intermediaries in the Caucasus, Central Asia, and the Middle East, avoiding interdiction efforts (Center for Global Civic and Political Strategies, 2024). In this regard, Russian customs records indicate a steady flow of dual-use electronics arriving via Armenia and Kazakhstan, indicating how sanctions leakage aids drone assembly lines.Russian universities and regional tech hubs have also been actively driving domestic drone innovation that is often overlooked. The "Partizan" drone group, developed at Reshetnev University in Siberia, is optimised for harsh climates and low-connectivity environments and incorporates airborne relay UAVs that extend the range of strike and reconnaissance drones while concealing operator positions (Maksymiv, 2025).

In turn, Russia has also actively worked to facilitate the domestic production of drones by private enterprises. For instance, Frobotics's "Svarog" family of fiber-optic drones combines an extended range of up to 30 kilometers with night vision, thermal imaging, and multiple payload configurations (TopWar, 2025a). In contrast to radio-controlled drones, fiber-optic UAVs are immune to jamming, paving the way towards overcoming EW-saturated areas in the frontline. Additionally, Russian domestic fiber-optic cables used in these systems outperform their Chinese equivalents in terms of durability, thereby minimizing breakages during high-speed manoeuvres (Ukrinform, 2025). Another recent development comes from the "Kuklovod" control system at the Perm National Research Polytechnic University, which addresses a key vulnerability in tethered UAVs: cable breakage during unwinding (MKRU, 2025). By redesigning the reel system and utilising locally produced carbon-fiber composites, engineers extended the operational range to 25 km, enabling stable, high-speed data transmission. The system's dual ground station formats (mobile and PC-based) make it adaptable for both field units and fixed installations.

Tactical Innovation as Policy

Russian drone tactics now follow a deliberate policy of redundancy, adaptability, and layered impacts aimed at exhausting Ukraine, undermining its social cohesion, and mentally exhausting its local population. Russia has made substantial progress in the tactical adaptation and development of UAVs. For instance, the recently introduced "Archangel" UAV delivers speeds of 280 km/h and modular payloads ranging from 700 grams to 7 kilograms, enabling precision strikes against bunkers, vehicles, and critical assets such as communication towers (TASS, 2025b). It offers several launch options, ground or aircraft, providing flexibility in deployment. It can fly at low altitudes and can avoid radar detection before accelerating to high speed for terminal strikes on air defense radars.

There was another recent addition: "Dan-M", a jet-powered platform capable of 750 km/h, derived from an aerial target drone (TopWar, 2025b). Its small radar profile and 3D-printed engine parts make it difficult to detect and intercept, forcing defenders to use their most capable and costly interceptors. A single "Dan-M" raid, even if intercepted, can absorb two to three interceptor missiles worth several hundred thousand dollars each, paying for itself in strategic terms. This approach is part of Russia's objective to overwhelm and wear down Ukrainian air defenses and subsequently inflict maximum damage on its critical infrastructure.

Russia has also achieved success with support platforms to expand its operational reach. With "Partizan" relay drones, the Russian army can establish ad hoc communication networks deep into contested zones, enabling FPV strikes far beyond line of sight. The "Svarog" UAVs and "Kuklovod" system enable sustained EW-resistant operations, essential for both resupply and targeting in heavily jammed environments. For instance, a "Svarog" could deliver ammunition to a forward position while simultaneously transmitting reconnaissance imagery back to a command post via a fiber-optic link, immune to jamming.Russia is also advancing counter-drone capabilities. At the "Archipelag 2025" forum, interceptors such as the AI-enabled "Skvorets PVO" and "Ovod-PVO," the manoeuvrable "Bolt" with radar integration, and the kinetic "Kinzhal" were presented (Pryhodko, 2025). These systems are designed to counter both individual UAVs and swarms. The "Krestnik-M" extends interception to maritime targets, reflecting Moscow's concern about unmanned surface threats. Supporting these is the "Tsifrovoy Dozor" acoustic network, which detects and classifies drones even under heavy jamming, and can integrate data from optical and radar systems (TASS, 2025c). A less visible but strategically important field is UAV-based exploitation. The "Uskuynik" project equips drones with a bionic arm capable of mid-air capture or ground retrieval of enemy UAVs (RGRU, 2025). The 3D-printed gripping system can be adapted for various models, allowing captured drones to be reverse-engineered,

stripped for parts, or redeployed. In an EW-heavy environment, this capability could be used not only for recovery but also to deny adversaries the opportunity to retrieve crash-site intelligence.

The breadth of this portfolio demonstrates that Russian innovation encompasses the entire operational cycle, combining both offensive and defensive capabilities.

Drones in Hybrid Warfare

Russia's integration of drones into hybrid campaigns mirrors its battlefield innovation. Civilian infrastructure remains a prime target. The Russian army targets power plants, hospitals, schools, and rail hubs, striking them to cause cascading economic damage, disrupt essential services, and undermine Ukraine's social cohesion (Beznosiuk, 2025a). The targeting of military recruitment centres in 2025 added a new dimension (Beznosiuk, 2025d). Strikes in Kharkiv, Zaporizhzhia, Poltava, Kryvyi Rih, and Kremenchuk destroyed undigitised conscription records and undermined mobilization efforts. Earlier incidents in Rivne, Pavlohrad, and Kamianets-Podilskyi point to a sustained strategy to degrade Ukraine's ability to replenish its forces.Such operations combine physical damage with a psychological impact, amplified by disinformation portraying the state as incapable of protecting its citizens. In a NATO context, the Russian army could seek to exploit similar tactics against mobilization hubs in the Baltic states or critical facilities in Poland, sowing instability before any open military engagement with Russia.

Ukraine as NATO's Test Range

The Russian leadership has used its war in Ukraine as a testing ground for its evolving drone doctrine. From AI swarm coordination to GPS-independent navigation, Russia collects performance data, identifies weaknesses, and refines its approach through repeated field trials.The Russian shift in drone strategy serves as both a warning and an opportunity for the West. NATO and EU countries should carefully examine Russian methods in real time, obtain key insights, and implement effective countermeasures. The warning is that NATO still lacks a unified doctrine for countering large-scale autonomous drone attacks. Procurement patterns remain fragmented, with some countries investing heavily in counter-drone systems while many fall behind. Ukraine's adaptation, which includes the use of interceptor drones, mobile electronic warfare units, and decentralised production of low-cost countermeasures, offers valuable lessons for the West. Ukrainian leadership develops these measures under constant attack and severe resource constraints. NATO has the advantage of preparation time and should work much closely with Ukraine to be able to prepare for potential military escalation with Russia and its application of drones.

Findings

The article showcases that Russia has institutionalised a drone-first doctrine that integrates production, tactics, and hybrid objectives. Russia backs this doctrine by industrial expansion and sanctions-resistant supply chains, which ensure maintained pressure on the Ukrainian state and society. Tactical innovations, such as AI-enabled swarms, jet-powered UAVs, and fiber-optic control systems, have bolstered resilience against traditional air defenses. The integration of drones into hybrid campaigns has widened their impact, striking energy systems, logistics, and mobilization centres to erode civilian morale. Finally, Ukraine now serves as a live testing ground where Russian capabilities are refined, providing a model that could be replicated against NATO in the near future.

Policy Recommendations

These findings have immediate implications for NATO and the EU. A unified counter-UAV doctrine is required to replace fragmented national approaches. NATO and EU procurement should prioritise affordable interceptors, counter-drone UAVs, and electronic warfare systems that can offset Russia's cost advantage. EU member states should integrate civil defense infrastructure, including shelters, repair units, and resilient communication systems, into their security planning and preparedness. NATO and the EU should institutionalise cooperation with Ukraine to enable real-time knowledge transfer and joint capability development. Additionally, EU leadership should consider stricter enforcement of sanctions on dual-use technologies, particularly those transiting through third countries, to limit Russia's production capabilities.

Strategic Implications for Europe

Russia's drone doctrine is designed to exploit cost asymmetries. Forcing defenders to use expensive interceptors against inexpensive drones creates a war of attrition that favours Moscow. The integration of drones into hybrid operations ensures that civil defense becomes part of the battlespace. This makes shelters, rapid repair capacity, and resilient communications as vital to survival as air-defense missiles (Beznosiuk, 2025a).The distributed nature of Russia's drone-industrial network means it cannot be easily disabled through sanctions or strikes on a small number of facilities.

For NATO and the EU, the challenge is not only to field the right technology but also to develop the doctrine and training that will enable its practical use. Defending against mass drone incursions will require integrated air and missile defense networks, stockpiles of affordable interceptors, strong electronic warfare capabilities, and a civil defense system capable of operating under sustained pressure. In the absence of such measures, critical European infrastructure, from LNG terminals in the Baltic to major transport corridors through Eastern and Central Europe, could be exposed to the very saturation tactics now being refined over Ukraine.

Conclusion. The integration of drones into Russian operational doctrine marks one of the most significant shifts in modern warfare since the arrival of precision-guided munitions. It reflects sustained investment, diversified innovation, and iterative learning on the battlefield. By merging conventional and hybrid warfare into a seamless whole, Russia can project power, impose costs, and destabilise adversaries without triggering the escalation thresholds that would guarantee direct retaliation.

Ukraine is already living in this future battlespace. The West still has time to prepare, but the window is narrowing at a much faster pace. The West faces a choice: either use Ukraine's experience as both a warning and a guide, or face the same doctrine with its accompanying implications later under far less favourable conditions.

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Beyond Myths: Unpacking Thailand's Soft Balancing in Foreign Policy toward China

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ABSTRACT

Amid intensifying great power rivalry between the United States and China, how does Thailand navigate its foreign policy direction? Since the coup in 2014, Thailand has often been portrayed as bandwagoning with China. Through documentary analysis, empirical data, and case study methods, this article challenges that myth by arguing that elements of balancing exist, albeit in a soft form. This "soft balancing" is driven by Thailand's prerequisite conditions to restrain China's power through institutions without resorting to hard military measures. The strategy spans three dimensions: security, economy, and diplomacy. Evidence suggests that Thailand employs soft balancing by capitalizing on its alliance with the United States, imposing conditions on infrastructure investments as well as diversifying partnerships, and leveraging ASEAN institutional mechanisms. By unpacking Thailand's soft balancing in practice, this article contributes to debates on secondary state alignments, particularly regarding how secondary states respond to great power competition and China's growing influence, and offers policy lessons for other smaller states on deftly maneuvering toward greater powers.

KEYWORDS: Soft balancing, U.S. alliance, Thai foreign policy, China

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1. Introduction Following the 2014 coup, Thailand has been widely perceived as bandwagoning with China while distancing itself from its longstanding ally, the United States, amid intensifying great power competition between Washington and Beijing (Pongsudhirak, 2016; Han, 2018; Shambaugh, 2018). This perception contradicts the conventional wisdom of realism, which holds that states tend to balance

against rising powers. China's growing assertiveness in the South China Sea and its expanding economic domination through the Belt and Road Initiative (BRI) in Thailand's neighboring countries such as Laos and Cambodia raise concerns for Bangkok, despite the absence of a direct security threat. As a longstanding U.S. ally with a long history of maintaining its sovereignty, Thailand is determined not to be dominated by China either economically or strategically. Yet, overt hard balancing policies, such as military buildup or confrontation, could prove excessive, risk provoking China, and potentially trigger a security dilemma in the region. Moreover, China is of great economic significance. This raises the central question of how Thailand navigates its alignment choices and responds to China's growing influence. This article argues that the notion of Thailand's bandwagoning with China is a myth, and that its balancing efforts exist, albeit in a soft form. It aims to examine the conditions under which Thailand pursues soft balancing and how such strategies are employed in practice. In doing so, this article contributes to the studies on secondary state alignments and Thai foreign policy by challenging prevailing misperceptions. This paper employs a documentary analysis based on official reports, academic articles, books, and news reports. Empirical data including the joint military dataset, the SIPRI arms transfers database, and World Bank trade volume are also used. A case study of Thailand is employed to illustrate how a secondary state responds to China through soft balancing strategies across different dimensions. The discussion begins with a review of the theory of soft balancing. It then presents the conditions that prod Thailand toward this strategy, followed by empirical evidence of Thailand's soft balancing in action.

2. The Theory of Soft Balancing After the fall of the Soviet Union, the global balance of power shifted from bipolarity to unipolarity led by the United States. As a sole hegemon, the United States no longer faced challengers or balancing powers as it did during the Cold War. This cast doubt among scholars about the viability of realist theory. For instance, Wohlforth (1999) notes: "...the second-tier states face incentives to bandwagon with the unipolar power as long as the expected costs of balancing remain prohibitive" (p. 8). Likewise, Lebow (1994) criticizes realism for its failure to explain the post-Cold War phenomenon in which the United States became uncontested. However, believing that such a phenomenon was only temporary, Waltz (2000) contends that unipolarity is likely to be "the least durable of international configurations" (p. 27). As he suggests, it is only a matter of time before new challengers emerge. Today, the rise of China has largely confirmed Waltz's speculation. In fact, even in a unipolar world, there were still balancing attempts against the United States. When the United States sought to conquer Iraq in 2003, several major powers made efforts "to delay, frustrate, and even undermine" the U.S. war plans (Pape, 2005). Suggesting that major powers were concerned about Bush's unilateralism, Pape implies that balancing still persisted even in the post-Cold War context. Such efforts took the form of soft balancing rather than traditional hard balancing. The question here is what is soft balancing? Since hard balancing involves military tools – including domestic military buildups (internal balancing) and alliance formation (external balancing) – that could not be employed against

the United States, weaker states have been compelled to find alternative ways to check and balance the power of the hegemon.

There is no consensus among scholars regarding the definition of soft balancing. According to Pape (2005), a state can employ soft balancing, which primarily relies on non-military tools, "to make a superior state's military forces harder to use without directly confronting that state's power with one's own forces" (p. 36). This implies that soft balancing is mainly for weaker states against stronger powers. Pape further presents four mechanisms of soft balancing including: territorial denial, entangling diplomacy, economic strengthening, and signaling resolve to balance. Like Pape, Walt highlights how weaker states take diplomatic actions to tame U.S. primacy. To Walt (2005), soft balancing refers to "the conscious coordination of diplomatic action in order to obtain outcomes contrary to U.S. preferences" (p. 126). While Pape and Walt agree on the maneuver of soft balancing by weaker states against a great power especially the United States, Paul proposes that soft balancing is being employed by the United States itself against China. According to Paul, soft balancing is defined as "restraining the power or aggressive policies of a state through international institutions, concerted diplomacy via limited, informal ententes, and economic sanctions in order to make its aggressive actions less legitimate in the eyes of the world and hence its strategic goals more difficult to obtain" (2018, p. 20). While others highlight non-military efforts, Kai He and Feng (2008) point to the presence of both military and non-military efforts in soft balancing. In fact, soft balancing includes a military aspect mainly for signaling, yet diplomatic means remain the primary focus (McDougall, 2012). Moreover, Kai He (2008) contends that soft balancing is closely linked with institutional balancing, a relatively new form of balancing in which states conduct balancing strategies through multilateral institutions.

In short, different scholars define soft balancing differently, and hence soft balancing is facing a "concept-stretching problem" (He & Feng, 2008). Despite this, previous studies present two core elements of soft balancing: objectives and means. Regarding the objectives, soft balancing aims to restrain or undermine the power of the target state by making it difficult for the target state to achieve its desired outcomes. As for the means, it can involve security, economic, and diplomatic means. This can also be achieved via institutions which render balancing efforts more indirect and less confrontational. Based on these objectives and means, this paper employs this definition of soft balancing to explain Thailand's foreign policy toward China.

3. Conditions for Thailand's Soft Balancing This section outlines the conditions that compel Thailand to employ soft balancing. Since different states have different conditions that shape their foreign policy choices, this article contends that, for Thailand, the conditions that make soft balancing a suitable option include U.S. alliance, the absence of a direct security threat, economic dependence on China, and domestic discourse.

3.1 U.S. Alliance

As one of the two only formal allies of the United States in Southeast Asia, rooted in the 1954 Manila Pact and the 1962 Thanat-Rusk communiqué, Thailand finds itself impossible to entirely abandon balancing and adopt a bandwagoning approach toward China. Categorizing states in Southeast Asia in the context of great power competition, Evelyn Goh (2016) asserts that U.S. allies cannot be hedgers, which refer to the middle range of security alignment. Goh's observation implies that Thailand, as a U.S. ally, sits on the opposite end of the spectrum from China-bandwagoning states, thereby retaining a certain degree of balancing. Although Thailand appeared to distance itself from its security patron following the 2014 coup, historical experience has proved that strategic cooperation between the two nations has been a firm feature of Thailand's foreign policy. During the Cold War, the two allies worked closely to counter the communist threat in the region. While the United States provided military and economic assistance, Thailand offered bases for American forces to fight in the Vietnam War. In the 21st century, alliance persisted, adapting to changing security challenges. In the aftermath of the 9/11 incident when counterterrorism became a new agenda for U.S. alliances, Thailand pledged full support for the U.S. War on Terror, earning the designation of a major non-NATO ally in 2003. This decision also provided Thailand with an opportunity to restore its long-strained security ties with the United States in the post-Cold War era. These historical instances demonstrate that the U.S. alliance remains a crucial condition in Bangkok's strategic calculus.

3.2 Absence of Direct Security Threat

Thailand does not perceive any traditional security threat such as territorial disputes from China despite their geographical proximity. However, like Thailand, both Japan and the Philippines are formal U.S. allies, yet they engage in territorial disputes with China, in the Senkaku Islands and South China Sea, respectively. Moreover, these states have experienced growing Chinese maritime activities, which they perceive as infringing upon their national sovereignty such as the 2010 boat collision incident near the Senkaku Islands and the 2012 Scarborough Shoal standoff. To safeguard their national sovereignty, Japan and the Philippines lean toward hard balancing strategies, which involves both domestic military buildups and strengthening the U.S. alliance. Recently, in response to China's assertiveness, the United States and the Philippines expanded the Enhanced Defense Cooperation Arrangement (EDCA) to include four new bases, allowing U.S. forces to be stationed on Philippine soil (U.S. Department of Defense,

2023). This move provoked a strong reaction from China (Bangkok Post, 2023). If Thailand were to adopt a similar approach, it could trigger a security dilemma in mainland Southeast Asia. Nevertheless, Thailand is primarily concerned with one non-traditional security issue: China's construction of dams on the Mekong River. These dams disrupt the livelihoods of communities in northern and northeastern Thailand, who depend on the river for farming, fishing, and transportation. The construction blocks and alters the river's flow, resulting in drought conditions. According to the Mekong River Commission, the blockage of fish migration caused by the damns could result in nearly $23 billion in economic losses by 2040 (Chandran, 2023). Therefore, unlike Japan and the Philippines, Thailand faces no direct security threat from Beijing and hence has little incentive to resort to hard balancing since the strategy can be risky and costly (He & Feng, 2008).

3.3 Economic Dependence on China

Economic dependence on China is a key factor that concerns Thailand, particularly in the age of globalization, in which economic interdependence between states has deepened. This intensifying interdependence has amplified state's sensitivity and vulnerability (Keohane & Nye, 2011). For Thailand, China is an important and irreplaceable trading partner, ranking as the country's second-largest partner with a total trade value of USD 34,430 million, accounting for nearly 12% of Thailand's trade (World Bank, n.d.). This figure is second only to Thailand's security patron, the United States, whose trade share is approximately 16%. This shows that Thailand cannot afford to lose an important trade partner, especially in the post-COVID world where economic recovery is crucial. As mentioned earlier, hard balancing could be risky and costly due to its possibility of antagonizing China. Moreover, China is known for its proficiency in maneuvering geoeconomic statecraft, which refers to "the use of economic instruments to promote and defend national interests, and to produce beneficial geopolitical results; and the effects of other nation's economic actions on a country's geopolitical goals" (Blackwill & Harris 2016, p. 20). This is evidenced by China's ban on rare earth mineral exports to Japan in 2010 in response to the boat collision incident, and by the ban on banana imports from the Philippines in 2012 following the Scarborough Shoal standoff, resulting in economic losses in both countries. In 2010, Japan depended on China for 90% of its rare earth elements, which were used to produce electrical components (Terazawa, 2023). Meanwhile, in the case of the Philippines, 150 containers of bananas were destroyed by mid-May 2012, costing losses of USD 760,000 (Zirulnick, 2012). Considering Thailand's economic overreliance and China's robust geoeconomic statecraft, the country is vulnerable and should avoid employing overt military strategies that could resemble the experiences encountered by Japan and the Philippines.

3.4 Domestic Discourse

Another factor that makes soft balancing more suitable than hard balancing for Thailand's foreign policy menu is the Thai public's perception of China. As Henry Kissinger (1966) observed, "foreign policy begins where domestic policy ends" (p. 503). The Thai general public still holds a favorable view of China. According to a survey by the Pew Research Center, 80% of Thais have a positive attitude toward China – the highest percentage among the 35 countries studied (Silver et al., 2024). When asked about China's leadership, the survey indicates that 63% of the Thai public remain confident in President Xi Jinping's ability to manage global affairs. Despite China's growing maritime assertiveness in the South China Sea, the survey suggests that a majority of Thais (61%) are not concerned about China's territorial disputes. This is likely due to the absence of direct territorial disputes between Thailand and China, as noted previously. Apart from political views, the Thai public also considers China's economic significance. An ISEAS-Yusof Ishak Institute (2024) survey found that 70.6% of Thais would choose China over the United States if forced to take sides, citing China's greater economic influence in ASEAN. Furthermore, many Thais retain a historical memory of China's role in helping to counter Vietnamese aggression during the Cold War following the Sino-Vietnamese split. Thus, this strong pro-China sentiment makes it difficult for Bangkok to take a confrontational stance toward Beijing, unlike other U.S.-allied nations in the region.

4. Thailand's Soft Balancing in Action The previous section outlined conditions that drive Thailand toward soft balancing. This section examines how Thailand employs soft balancing strategies toward China in practice. It presents empirical evidence showing that these strategies encompass three dimensions: security, economy, and diplomacy.

4.1 Security

Given the absence of a direct threat, Thailand's economic dependence on China, and domestic discourse, the country is unable to pursue an overt balancing stance toward China despite its alliance with the United States. As a result, Thailand capitalizes on the institutional framework of its U.S. alliance status through the Cobra Gold exercise, the largest joint military exercise in the Indo-Pacific region. Since the collapse of Southeast Asia Treaty Organization (SEATO), Cobra Gold has become a longstanding symbol of the U.S.-Thailand alliance, having been held since its inception in 1982. Despite the coup in 2014, the drill continued. According to Bernhardt's (2021) joint military exercise dataset, the number of participating U.S. troops slightly declined from 4,000 in 2014 to 3,600 in the following years. However, it skyrocketed to 6,800 in 2018 after normalization when Prime Minister Prayut visited President Trump at the White House in 2017 despite being an undemocratic leader (Chongkittavorn, 2018). In the U.S.-Thailand Joint Statement, both leaders emphasized a "stronger alliance for common security" (U.S. Embassy & Consulate in Thailand, 2017). While Thailand publicly

highlights Cobra Gold as a symbol of its alliance with the United States, it simultaneously utilizes the exercise as a soft-balancing tool against China by avoiding the formalization of a hard military alliance and refrain from directly confronting China. In the statement, despite its focus on humanitarian assistance and disaster relief, Cobra Gold is also framed as ensuring "a free and open Indo-Pacific" (U.S. Embassy & Consulate in Thailand, 2025), signaling deterrence to China amid rising Chinese maritime expansionism in the region. This illustrates what Pape (2005) describes as a signal of resolve to balance.

In addition, Thailand's soft balancing is reflected in its arms purchases. According to Kai He and Feng (2008), military-related soft balancing entails arms sales. Although they emphasize the sales of weapons to the enemy of the target state as a means of shifting the relative power, acquiring weapons from the patron (the United States) to diversify suppliers and avoid vulnerability resulting from overdependence on the target state (China) also demonstrates Thailand's strong commitment to the patron by enhancing interoperability while maintaining strategic autonomy. U.S. arms sales, in turn, are often driven by strategic considerations to shift the regional balance of power in favor of U.S. interests (Thrall et al., 2020), which aligns with Thailand's security calculus. Since 2000, the percentage of Thailand's total weapons from China and the United States has been 20% and 18%, respectively (SIPRI, 2025). Despite a recent trend indicating a decline in U.S. military procurements (Sato & Yaacob, 2023), the data by SIPRI (2025) also suggest that the country has diversified its military procurements to include other nations such as Ukraine (11%), South Korea (9.9%), and Sweden (9.8%). There is also an internal balance within Thai military factions, with the Navy acquiring a Yuan-class submarine from China and the Air Force procuring Gripen fighter jets from Sweden, showing a sophisticated strategy of soft balancing at preserving autonomy as well as avoiding overdependence on China.

4.2 Economy

Thailand seeks to maintain its economic sovereignty and avoid Chinese domination, a situation observed in some of its neighbors, notably Cambodia and Laos, where Chinese-financed infrastructure projects have led to overreliance and issues related to autonomy. This aligns with Pape's discussion of territorial denial as a mechanism for soft balancing. Although Pape (2005) highlights denial in the realm of security, the concept can also be extended to the economic realm whereby a great power could dominate recipient countries through expanding influence via infrastructure investment. China is widely criticized for its inclusion of several conditions that infringe upon recipient countries' autonomy such as requiring the employment of Chinese labor, sourcing materials from China, utilizing Chinese technology, and relying on Chinese design and project consultancy (Aroonpipat, 2024). As soft balancing means restraining the counterpart's power or influence, Thailand's imposition of specific conditions on the Sino-Thai high-speed railway project can be interpreted as a form of economic soft balancing. Through a

project conditionality design" in which infrastructure investment is linked to specific requirements, Thailand sought to safeguard its autonomy by setting the following conditions (Bangkokbiznews, 2017):

1. Thailand will serve as the commercial developer of all railway stations and adjacent areas so that revenue will flow back to the government;
2. Civil construction must be undertaken by Thai contractors;
3. Construction materials and equipment must be sourced domestically as much as possible;
4. No construction workers from China may be brought in except for specialists such as engineers and architects;
5. High-speed train drivers must be Thai personnel from the first day of operation.

Moreover, Thailand diversifies its options by welcoming Japanese high-speed railway projects, despite slower progress compared to those with China. Emphasizing the flexibility and self-reliance for the recipient country, the Prayut Chan-o-cha administration allowed Japan to bid for the Bangkok-Chiang Mai route. This diversification exhibits Thailand's soft balancing efforts toward China, preventing Beijing from monopolizing the projects in the country and helping maintain a geopolitical balance between regional major powers (Aroonpipat, 2024).

4.3 Diplomacy

Pape (2005) asserts that soft balancing entails the use of entangling diplomacy through international institutions. Diplomatically, Thailand primarily employs soft balancing via institutional mechanisms, particularly within the ASEAN framework. As noted by Kai He (2006), ASEAN is "a balancing tool of Southeast Asian countries to address state-to-state relations" (p. 204). Through ASEAN, Thailand – together with other secondary states in Southeast Asia – can increase its leverage in asymmetrical relationships, especially vis-à-vis great powers. By championing collective norms and rule-based mechanisms, China's power is constrained, as reflected in the Declaration on the Conduct of Parties in the South China Sea (DOC) of 2002. The DOC not only affirmed China's commitment to self-restraint in the conduct of activities but also signaled its acceptance of ASEAN's institutional role in conflict settlement. According to Buszynski (2003), "small states are the beneficiaries of norms in that an ordered environment will protect their rights of access against stronger powers, which may otherwise be disposed towards the use of force" (p. 345).

Despite China's recent growing maritime expansionism in the South China Sea, Thailand's embrace of China within the institutional framework showcases its efforts to normalize China's behavior and to restrain its power in the region. Moreover, Thailand has welcomed the Free and Open Indo-Pacific (FOIP) strategies of China's strategic rivals, as evidenced by the adoption of the ASEAN Outlook

on the Indo-Pacific (AOIP) during Thailand's chairmanship of the 34th ASEAN Summit in 2019 in Bangkok. Generally, FOIP strategies – especially the U.S. and the Japanese versions – are viewed as counterweights to China. Although the AOIP is less confrontational than those versions, it nonetheless aligns with them in fostering an open, transparent, inclusive, and rule-based regional order. Emphasizing maritime cooperation, the AOIP describes unsolved maritime disputes as "the existing and arising geopolitical challenges" (ASEAN, 2019), thereby implicitly acknowledging Chinese assertiveness as one of the region's challenges. The AOIP also aims to bolster the optimization of ASEAN-centered mechanisms such as the East Asian Summit (EAS), the ASEAN Regional Forum (ARF), and the ASEAN Defense Ministers' Meeting Plus (ADMM-Plus), all of which underscore diplomatic soft balancing via institutions toward China (Paul, 2018).

Table 1.

Summary of Thailand's Soft Balancing Strategies toward China

Security	Economy	Diplomacy
Cobra Gold	Imposing conditions on infrastructure investments	ASEAN platforms e.g. AOIP, EAS, ARF, ADMM-Plus
Diversifying arms procurement	Diversifying infrastructure investment partnerships	

Source: The author

5. Conclusion Given the prerequisite conditions – including its U.S. alliance, the absence of a direct security threat, economic dependence on China, and domestic discourse – Thailand finds soft balancing the most suitable option for navigating its foreign policy toward China amid rising Chinese influence in the region. To safeguard its autonomy and national interests, Thailand employs soft balancing, a strategy to restrain the power of a state without direct military confrontation, in three dimensions: security, economy, and diplomacy. In terms of security, Bangkok uses the annual Cobra Gold exercise as an institutional platform to maintain security ties with Washington while signaling a degree of deterrence to Beijing. It also diversifies its arms procurement to avoid overdependence on China. Economically, Thailand has imposed conditions on Chinese infrastructure investment projects to preserve its economic

sovereignty, while simultaneously welcoming Japanese projects to prevent Chinese monopolization. Diplomatically, Thailand maneuvers ASEAN mechanisms – including the ASEAN Outlook on the Indo-Pacific (AOIP), East Asia Summit (EAS), ASEAN Regional Forum (ARF), and ASEAN Defense Ministers Meeting (ADMM) – to enhance its bargaining leverage and to normalize China's growing assertiveness within a multilateral framework. Taken together, these three dimensions move beyond the myth of Thailand's bandwagoning with China and instead illustrate Thailand's deft use of institutions to balance China's rising power without resorting to overt hard-balancing strategies. More broadly, the case of Thailand provides lessons for other smaller states on how to maneuver strategies toward China while safeguarding autonomy.

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APA 7th referencing guide

Purpose

When writing an assignment or a research project, you must cite a variety of sources to support your arguments, indicating where the ideas and quotations originated.

- Provide evidence that your research is based on a substantial background.
- Assist readers in finding relevant literature on the topic.

- Help authors avoid plagiarism.

Multiple works by the same author(s)

Published in the same year

Two or more than two publications of an author in the same year must be separated by the expansion of a, b, etc. (whether or not they were composed, altered, gathered or deciphered), and are recorded in order by titles. All work titles in the reference list order sequentially.

In-text citation	(Edkiy natr ZZ,2022a). Edkiy natr ZZ. (2022b)affirmed that...
Reference list	Edkiy natr ZZ.(2022a). *Who is stronger economically - Russia or the West?* https://dzen.ru/media/yedkiyy/ktosilnee-ekonomicheski-rossiia-ili-zapad 62dc6bb677825969566f15a7?&(In Russian). Edkiy natr ZZ.(2022b). *The explosive effect of Nord Stream.* https://dzen. ru/a/YzPrA0Yuwjj-7a7x?& (In Russian).

Published in different years: In the reference list, arrange the references in the chronological order.

In-text citation	Totska(2011)and Totska.(2017).state....
Reference list	Totska, O. (2011). Statistical waves of the budgetary financing of education and science in Ukraine. *The Annals of the "Stefan cel Mare" University of Suceava, Fascicle of the Faculty of Economics and Public Administration, 11,* 2 (14), 252–257. https://cutt.ly/owJOIXwD. Totska, O. (2017). ABC-analiz bakalavrskykh osvitnikh prohram Skhidnoievropeiskoho natsionalnoho universytetu imeni Lesi Ukrainky **[**ABC-analysis of the bachelor's educational programs of Lesya Ukrainka Eastern European National University**]**. *Economic journal* of *Lesia Ukrainka Eastern European National University,*4,114–122. https://www.echas.vnu.edu.ua/index.php/echas/ article/view/45/30 (In Ukrainian).

2. Author variations

☐ Work without author

With work without the author was given, check to see whether there is a corporate author for that work and consider the source is reliable if no personal author is indicated. if your source is reliable, follow the steps below:

- Replace the author by the article title in both the citation and reference list, abbreviate the work title if it is too long in the in-text citation.

- In every citation for a portion of a work, such as an article, a book chapter, or a webpage the title should place in quotation marks.

- For whole work, such as a book, brochure, or report, italicize the title in the in-text citation.

- For in-text citations and the text of your assignment, capitalize the source title in a headline style

In-text citation	("Millions of Chinese students" ,2013). OR In the article "Millions of Chinese students" (2013) ...
Reference list	Millions of Chinese students brace themselves for joblessness.(2020,May 2). *The Economist.* https://www.economist.com/china/2020/05/02/millions-of-chinese-students-brace-themselves-for-joblessness

One – two authors

Every citation should include the name of all author(s).

In-text citation	(Fidas & Sylaiou, 2021). OR Fidas and Sylaiou (2020) found that...
Reference list	Fidas, Cristos., & Sylaiou ,Stella.(2021). *Editorial for Special Issue Virtual Reality and Its Application in Cultural Heritage*. https://www.mdpi.com/2076-3417/11/4/1530

Three – 20 authors

-To avoid confusion, provide as many names as necessary to identify the references, then abbreviate the additional names to et al. in cases when many publications with more than three contributors are shortened to the same in-text citation (et al.);

- All authors must be provided in the reference list.

In-text citation	(Sureda-Negre et al., 2021). OR Sureda-Negre et al. (2020) found that...
Reference list	Sureda-Negre, J., Comas-Forgas, R., & Oliver-Trobat, M. F. (2015). Academic plagiarism among secondary and high school students: Differences in gender and procrastination. *Comunicar, 22*(44), 103-111. https://doi.org/10.3916/C44 2015-11

Corporate author (Group author, Organisations, etc.)

- Organization names must be in full name in citation and the reference list.

- The initial in-text citation should include the full name of the organization, and then can be anonymized.

- When numerous departments are given, chose the unit that is most important for the work as the author.

In-text citation	**First in-text citation** (World Intellectual Property [WIPO], 2020). OR The World Intellectual Property (WIPO, 2020) reports **Subsequent citations** (WIPO, 2020) OR WIPO (2020) states...
Reference list	World Intellectual Property. (2020). *What's new in WIPO's Internship Program?* https://www.wipo.int/jobs/en/internships/news/2020/news_0001.html

3. REFERENCING LIST EXAMPLE

No.	Reference sources	In-text citation	Reference list
1.	**Book/eBook**	**Structure:** (Author, Year) **Example:** (Bodie et al.,2015)	**Structure:** Author Surname, Initial(s). (Year). *Title of book: Subtitle* (#ed.). Publisher Name. https://doi.org... OR URL ☐ ***For printed books,*** *leave out DOI/URL* **Example:** Bodie, Z., Kane, A., & Marcus, A. (2017) *Investments* (11th ed.). McGraw-Hill Education

2.	**Chapter in an edited book**	**Structure:** (Author, Year) **Example:** (Cardona &Rey,2022)	**Structure:** Chapter Author Surname, Initial(s). (Year). Title of chapter. In Editor Initial(s). Editor Surname (Ed.), *Title of book* (# ed., pp. chapter page range). Publisher Name. https://doi.org... OR URL ☐ ***For printed books,*** *leave out DOI/URL* **Example:** Cardona, P., & Rey, C. (2022). The limits of management by objectives. In P. Cardona & C. Rey (Eds.), *Management by missions: Connecting people to strategy through purpose* (pp. 35–48). Springer International Publishing. https://doi.org/10.1007/978-3-030-83780-8_3.
3	**Edited Book Chapters** Chapter in an edited book, republished in translation	**Structure:** (Author, Year) **Example:** (Sutch &Pierce,2023) **Example:** (Diadyk ,2021)	**Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Eds.), *Title of dictionary or encyclopaedia* (Edition.). URL **Example:** Sutch, P., &Pierce, O. (2023). Practicing Humanity: Humanisation and Contemporary International Political Theory. In H.Williams, D. Boucher, P.Sutch, D.Reidy &A.Koutsoukis (Eds.), *The Palgrave Handbook of International Political Theory. International Political Theory*.(Vol.1,pp.303-320).https://doi.org/10.1007/978-3-031-36111-1_16 **Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Eds.), *Title of book(edition, page numbers for whole chapter). Publisher.* **Example:** Diadyk, T. *(2021). Global experience in the development of business education. In O.Kalashnyk, S. Moroz, & I. Yasnolob (Eds), Quality and safety of products in domestic and foreign trade and trade entrepreneurship: modern vectors of development and prospects: collective monograph (pp. 145-162). Poltava: "Astraya" Publishing House (In Ukrainian).*
4.	**Journal article**	**Structure:** (Author, Year) **Example:** (Prima et al., 2019)	**Structure:** Author Surname, Initial(s). (Year). Title of article: Subtitle. *Title of Journal*, *volume*(issue), page range. https://doi.org... OR URL **Example:** Prima, R., Honcharuk, O., Prima, D., & Roslavets, R. (2023). Digitalization of education – Trend, strategy, and challenge of the time. *Pedagogical Sciences: Theory, History, Innovative Technologies, 3*(127),183-191. https://doi.org/10.24139/2312-5993/2023.03/183-191

5.	**Journal article in a language other than English (not in English)**	**Structure:** (Author, Year) **Example:** (Romakh, 2021)	**Structure:** Author Surname, Initial(s). (Year). Title of article[trans.] *Title of Journal*, *volume*(issue), page range. https://doi.org... OR URL ((In Language). **Example:** Romakh, O. (2021). Osoblyvosti ekspertyzy naukovykh robit shchodo vyiavlennia akademichnoi nedobrochesnosti [Specifics of research papers expertize regarding detection of academic dishonesty]. *Scientific Notes of the Institute of Journalism, 1*(78), 11–29. https://doi.org/10 17721/2522-1272.2021.78.(In Ukrainian).
6.	**Newspaper or magazine article**	**Structure:** (Author, Year) **Example:** (Chongkittavorn ,2022)	**Structure:** Author Surname, Initial(s). (Year, Month Day). Title of article: Subtitle. *Newspaper or Magazine Title*. URL. **Example:** Chongkittavorn, Kava**.** **(**2022, November**22)** Three summits jointly boost centrality**.** *Bangkok Post* ,Opinion https://www.bangkokpost.com/opinion/opinion/2443139/three-summits-jointly-boost-centrality
7.	**Press release**	**Structure:** (Author, Year) **Example:** (Board of Investment, 2021)	**Structure:** Author Surname, Initial(s). (Year, Month Day). *Title of press release* [Press release]. URL. **Example:** Board of Investment of Thailand **(**2021**).** *Thailand's New Semiconductor Incentives Timed to Support Rising E&E Investment* **[**Press Release**].** https://www.boi.go.th/index.php?page=press_releases_detail&topic_id=129197.
8.	**Conference paper OR Poster**	**Structure:** (Author, Year) **Example:** (Gupta, 2009) (Suwan-achariya,2023)	**Structure:** Author Surname, Initial(s). (Year, Month Day). *Title of paper* [Type of presentation]. Title of Conference: Subtitle of Conference, Location. https://doi.org... OR URL ☐ ***For Poster,*** *use* [Poster presentation] Gupta, A. K. (2009). *Environment and disasters: Resources, systems and management* [Paper presentation]. Current Science Conference (00113891), New Delhi. http://search.ebscohost.com/login.aspx?direct=true&db=egs&AN=41529360&site=ehost-live. Author Surname, Initial. (Year). Title of paper. In Editor Initial, Surname (Ed.). *Title of book which paper appears in* (page numbers). Publisher.

			Suwan-achariya, S. (2023). Concept of economic development for prosperity. In G ..Y. Gulyaev (Ed.)*High-Tech, Science, and Education: Topical Concerns, Accomplishments, and Innovations. The proceedings of the XVIII All-Russian Scientific and Practical Conference*(pp. 52-55).Penza.
9.	**Thesis**	**Structure:** (Author, Year) **Example:** (Albor, 2011) (Harris, 2014)	**Structure:** Author Surname, Initial(s). (Year). *Title of dissertation or thesis* [Doctoral dissertation or Master's thesis, Name of Institution Awarding the Degree]. Source Name. URL. **Example:** Albor, C. (2011). *Are poor people healthier in rich or poor areas?: The psychosocial effects of socioeconomic incongruity in the neighbourhood* [PhD thesis, University of York]. White Rose eTheses. http://etheses.whiterose.ac.uk/1595/ Author Surname, Initial. (Year). *Title of dissertation or thesis* [Unpublished dissertation/thesis]. Name of university. Harris, L. (2014). *Instructional leadership perceptions and practices of elementary school leaders* [Unpublished doctoral dissertation]. University of Virginia.
10.	**Webpage**	**Structure:** (Author, Year) **Example:** (Hai Minh, 2019)	**Structure:** Author Surname, Initial(s) or Organisation Name. (Year). *Title of webpage*. Site Name. URL. ☐ ***Webpage – no date**, replace the Year with* (n.d.) ☐ ***Webpage – no author**, use the Organisation Name if available. If No, use the Webpage Title.* ☐ *If the Author Name and Site Name are the same, omit the Site Name* **Example:** Hai Minh. (2019). *New milestone in VN-EU relations*. Government News. http://news.chinhphu.vn/Home/New-milestone-in-VNEU-relations/20196/36969.vgp.
11.	**Dictionary or encyclopedia entry.**	**Structure:** (Author, Year) **Example:** (Downes, 2018)	**Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Ed.), *Title of dictionary or encyclopaedia* (Edition.). URL Downes, S. M. (2018). Evolutionary psychology. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy.* http://plato.stanford.edu/entries/evolutionarypsychology/
12.	**Blog post**	**Structure:** (Author, Year) **Example:** (Bak-Maier, 2019)	**Structure:** Author Surname, Initial. (Year, Month Date). Title of blog post. *Title of blog*. URL Bak-Maier, M. (2019, March 23). Practical tips for overcoming the fear of failure – and success. *Times Higher Education blog.* https://www.timeshighereducation.com/blog/practical-tips-overcoming-fear-failure-and-success

13.	**Reports/ Government report/ Organisation report**	**Structure:** (Author, Year) **Example:** (WORLDBANK, 2022)	**Structure:** Author Surname, Initials. OR Organisation Name. (Year). *Title of report: Subtitle*. Publisher Name. URL. **Example:** WORLDBANK.(2022).*Annual report2022*. https://thedocs.worldbank.org/en/doc/811305cdbaf5310bc659f14b1e49f05c-0090012022/original/AR2022EN.pdf
14.	**Translated books**	**Structure:** (Author, Year) **Example:** (Reinert,2011)	**Structure:** Author Surname, Initial. (Year). *Title in English* (Translator Initial, Surname, Trans.). Publisher. **Example:** Reinert, Eriks.(2011). *How rich countries got rich ...and why poor countries stay poor*.(N.Avtonomova, trans.).Vysshey shkoly ekonomik. .
15	**Republished Or modern edition of a classic book**	**Structure:** (Author, Year) **Example:** (Heidegger, (1961/2008).	**Structure:** Author Surname, Initial. (Year). Title of entry. In Editor Initial, Surname (Eds.), *Title of book*(edition, page numbers for whole chapter). Publisher. (Original work published Year) Heidegger, M. (2008). On the essence of truth (J. Sallis, Trans.). In D. F. Krell (Ed.), *Basic writings* (pp. 111–138). Harper Perennial Modern Thought. (Original work published 1961)
15	**No date**	**Structure:** (Author, n.d.) **Example:** (Bo,n.d.)	**Structure:** Author Surname, Initial. (n.d). *Title of book.* Publisher Name. Bo, P. (Ed.). (n.d.). *Traditional Chinese internal medicine.* People's Medical Publishing House.
16	No page p. is used when the quotation is from one page only. Example: p. 23. pp. is used when the quotation runs on to the next page, with the page range separated with an en dash. Example: pp. 23–24.	**Structure:** (Author,p) Example: (Stolyarova, 1993 ,pp.231–232). Wood (2018, **13:40**) Parker (2020, **Slide 4**) Frey (2019, **Research, para. 2**)	**Structure:** Author Surname, Initial. (n.d). *Title of book.* Publisher Name. Stolyarova,I.A.(Ed.)(1993). W. *Petty. A. Smith. D.Ricardo.Anthology of economic classics*. M: Econov Klyuch(In Russian). Wood, Z. R. (2018, April). *Why it's worth listening to people you disagree with* [Video]. TED Conferences. https://www.ted.com/talks/zachary_r_wood_why_it_s_worth_listening_to_people_you_disagree_with

	For electronic sources that do not provide page numbers, use the paragraph number. Use the abbreviation 'para.', and follow it with the number.		
17	Bills	**Structure:** (Author, Year) **Example:** Law and Justice Amendment Bill 2004 (Cth) (Law and Justice Amendment Bill 2004 (Cth) cl 22)	**Structure:** Law and Justice Amendment Bill 2004 (Cth).
18	Parliamentary debates (Hansard)	**Structure:** (Author, Year) **Example:** (Victoria, *Parliamentary Debates*, Legislative Council, 14 December 2017, 6854)	**Structure:** Jurisdiction, *Parliamentary Debates*, Chamber, Full Date of Debate, Page Number (Name of Speaker).

Table3.

The significant contribution of the Russian economy to global GDP

Draws attention to the upstream and midstream supply chain connectivity of food sourcing and products.	Over 30% of the "fertilizer basket" in Europe comes from Russian fertilizer exports.
It is the only country that can supply petroleum, gas, tungsten, titanium, aluminium, uranium, and rare earth minerals to any other country.	Approximately 19.5% of global grain exports are under Russian control.
Russian gas is essential to the survival of European industry. It is an important player in the world of raw materials, and countries that consume it may face serious difficulties if there are supply disruptions	It exports more nickel than any other country (20.4%). Products made of semifinished steel (18.8%), 30% palladium and 40% enriched uranium
Nearly one-third of the natural resources currently in Russian reserves are used by the global economy	The country is well-positioned to provide low-cost raw materials, raw material processing, and

as raw materials for transportation and industrial processing.	transportation logistics benefits to China and Europe.

*Note.*The author's summary and collection.

unprogressive.

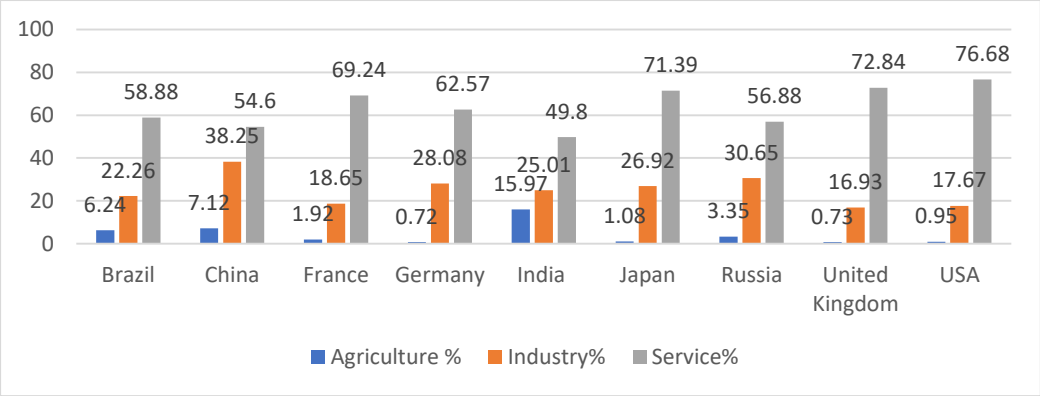

Figure1.

Proportions of economic sectors in the gross domestic product (GDP) in selected countries in 2023

Note. From "*Proportions of economic sectors in GDP in selected countries 2023,"*by Aaron O'Neill, 2025(https://www.statista.com/statistics/264653/proportions-of-economic-sectors-in-gross-domestic-product-gdp-in-selected-countries/) In the public domain.

(JusmineUPC 12)in Figure

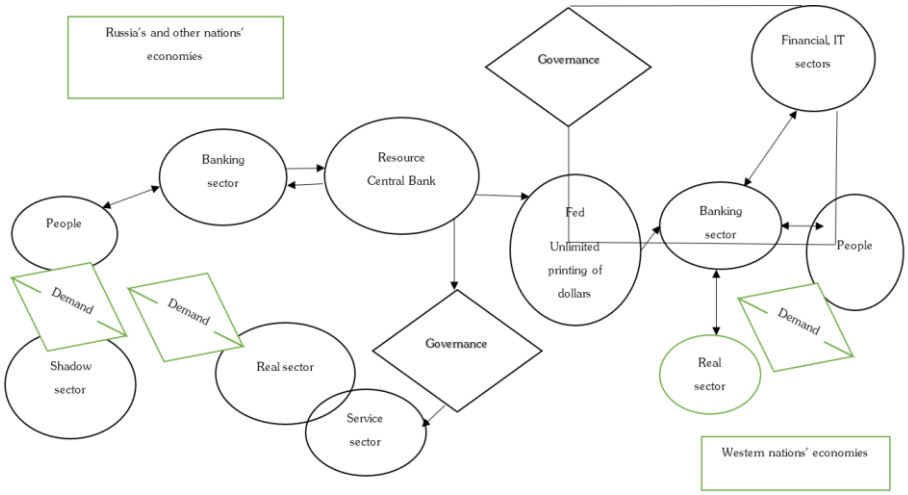

Figure2.

Gross Domestic Product of Bretton Woods

Note. The author adapted Divannyypolitikan's work(2022).

References

Anderman, E. M., Cupp, P. K., & Lane, D. (2010). Impulsivity and academic cheating. *Journal of Experimental Education, 78*(1), 135–150. https://doi.org/10.1080/00220970903224636

☐ Leave one centimetre off the front edge.

☐ Sort alphabetically.

Arellano, W. M. B., & Tornero, J. L. V. (2023). Psychometric properties of the academic dishonesty questionnaire in English students in Cuenca, Ecuador. *Etic Net-Revista Cientifica Electronica de Educacion y Comunicacion en la Sociedad del Conocimiento, 23*(2), 419–432. https://doi.org/10.30827/eticanet.v23i2.28284

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