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GLOBAL ECONOMIC NETWORKS AND INTERNATIONAL CONFLICTS IN THE SYSTEM OF INTERNATIONAL ECONOMIC RELATIONS: A CONNECTOGRAPHIC APPROACH

ABSTRACT

The article examines the role of global economic networks in the transformation of international economic relations in the context of intensifying international conflicts and geoeconomic competition. The relevance of the study is determined by growing geopolitical tensions, the increasing number of regional conflicts, the expansion of sanctions regimes, and the restructuring of global supply chains, which reshape the architecture of international economic relations. Under these conditions, international economic interaction is defined not only by traditional trade and investment relations but also by complex network structures of the global economy.

In this context, the concept of connectography enables the global economy to be analyzed as a system of economic networks that create mechanisms of interaction and dependence among states, corporations, and regions. Such an approach provides a broader theoretical perspective for explaining the transformation of international economic relations in a period marked by intensifying competition and conflicts.

The aim of the article is to analyze the influence of global economic networks on the development and transformation of international economic relations in the context of contemporary international conflicts using a connectographic approach. The study examines the functioning of global trade, investment, and technological networks and their role in shaping models of economic interaction among countries. Particular attention is paid to the impact of economic interdependence on international competition, the use of economic instruments in conflict environments, and the transformation of global value chains.

The results demonstrate that global economic networks function as mechanisms of global economic integration and as instruments of geoeconomic influence. Strengthening economic interdependence is accompanied by the growing use of trade restrictions, sanctions, technological barriers, and economic security policies as tools of international competition. Contemporary international economic relations are characterized by fragmentation of the global economy, redistribution of economic ties, and emergence of new network configurations of global interaction.

Keywords: global economic networks, connectography, geoeconomic conflicts, economic interdependence, world economy, globalization, economic fragmentation, global value chains, economic security

JEL Classification: F02, F15, F51, F52, F59

INTRODUCTION

Under contemporary conditions of the global economy, international economic relations are undergoing significant transformations under the influence of rising geopolitical tensions, the expansion of economic sanctions, trade restrictions, and regional conflicts. Developments in recent years, including wars, sanctions, confrontations, and the restructuring of global supply chains, have demonstrated that economic interdependence among states no longer guarantees the stability of the international system; rather, it may serve as an instrument of geoeconomic influence and competition. As a result, traditional perceptions of the functioning of international economic relations are gradually changing, giving way to more complex network-based models of global economic interaction.

The modern world economy is characterized by a high level of economic interdependence, which is formed through an extensive system of trade, investment, technological, and financial linkages. Such interactions create global economic networks that connect states, transnational corporations, and international institutions. In this context, the concept of connectography is gaining increasing relevance, as it views the world economy as a networked system of interconnected economic flows, infrastructures, and institutional interactions. The application of this approach makes it possible to examine structural changes in international economic relations more comprehensively and to identify new patterns in their development.

The growing role of economic networks in the global economy is accompanied by intensifying geoeconomic competition among states and regional integration blocs. Economic instruments are increasingly used as elements of national security policy, manifested in the application of sanctions, trade restrictions, controls over technology and investments, and other forms of economic regulation. Under such conditions, global economic networks can simultaneously function as a factor of economic integration and as a source of new forms of conflictual interaction among states.

Given these trends, there is a growing need to reconsider the role of global economic networks within the system of international economic relations and their impact on the development of international conflicts. The aim of this article is to examine the relationship between global economic networks and international conflicts within the system of international economic relations through the lens of a connectographic approach. Achieving this objective involves analyzing current trends in the development of the world economy, identifying the role of economic interdependence in the formation of geoeconomic conflicts, and assessing the transformation of international economic relations within the network structure of the global economy.

The importance of studying global economic networks is also determined by the fact that the contemporary structure of the world economy is shaped not only at the level of states but also through a complex system of cross-border economic linkages, within which transnational corporations, international financial institutions, digital platforms, and global infrastructure projects play a key role. These networks facilitate the circulation of goods, capital, technologies, and information, thereby forming a new spatial configuration of economic interaction. As a result, international economic relations increasingly acquire a network-based character, in which the economic power of states is determined not only by the scale of production or trade but also by their position within global economic networks.

At the same time, the intensification of geoeconomic competition and the politicization of economic relations are leading to the emergence of new models of economic interaction in which economic ties are used as instruments of strategic influence. This is reflected in the fragmentation of the world economy, the restructuring of global value chains, the strengthening of the regionalization of economic processes, and the formation of alternative economic blocs. In such conditions, the study of the connectography of international economic relations allows for a deeper understanding of the mechanisms of transformation of the global economy, the identification of new patterns in the development of global economic networks, and the assessment of their influence on the nature of international conflicts and economic interaction among states.

LITERATURE REVIEW

The study of the transformation of international economic relations in the context of global conflicts and the network structures of the world economy occupies an important place in contemporary economic research. One of the fundamental directions of this research is the analysis of economic interdependence among states. The classical works of R. Keohane and J. Nye laid the theoretical foundations of the concept of complex interdependence, according to which intensive economic ties between countries may both reduce and increase the level of conflict within the international system (Keohane & Nye, 1977). This idea was further developed in the works of R. Gilpin (2001), who examined the relationship between economic power and international politics, as well as in the studies of D. Lake (2009), which analyze the role of economic structures in shaping the international order.

A significant contribution to understanding the structure of the world economy has been made by studies of globalization and the global economic system. I. Wallerstein's world-systems theory views the world economy as a hierarchical structure consisting of core, semi-periphery, and periphery regions that form a system of interdependent economic relationships (Wallerstein, 2004). Subsequent research expanded these approaches through the analysis of global production networks and global value chains. In the works of G. Gereffi, J. Humphrey, and T. Sturgeon (2005), it is demonstrated that global

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value chains create a new organization of international production. Similar approaches are presented in the studies of N. Coe, P. Dicken, and M. Hess (2008), who consider global production networks as a key mechanism in the functioning of the modern world economy. R. Baldwin (2016) emphasizes that the development of digital technologies and transport infrastructure has contributed to the emergence of a new phase of globalization in which production processes are increasingly distributed across different countries.

An important direction of contemporary research involves the network analysis of the global economy. In the works of M. Jackson (2010), economic and social networks are viewed as systems of interaction among economic agents that determine the structure of economic processes. A study of the international trade network conducted by R. Kali and J. Reyes (2007) demonstrated that world trade has a clearly expressed network structure in which certain countries occupy key positions within global flows of goods and capital. Similar conclusions are found in the works of A.-L. Barabási (2016), where it is shown that complex networks play a crucial role in the functioning of modern economic systems.

A separate strand of research is devoted to the relationship between economic interdependence and international conflicts. In the work of J. Barbieri (1996), it is shown that economic interdependence may increase the probability of conflict in cases of asymmetric trade relations. Subsequent research further developed this idea through the analysis of asymmetric interdependence and its use in geoeconomic policy. In particular, H. Farrell and A. Newman (2019) proposed the concept of "weaponized interdependence," according to which states may use their position in global financial and information networks to achieve strategic objectives. Similar approaches are also examined in the works of D. Baldwin (1985) and R. Blackwill and J. Harris (2016), where economic instruments are analyzed as elements of international strategy and security policy.

A substantial portion of contemporary literature focuses on geoeconomics and economic security. In the classical work of E. Luttwak (1990), geoeconomics is defined as the use of economic instruments to achieve the strategic objectives of states. Subsequent studies demonstrate that economic sanctions, trade restrictions, and technological competition are increasingly employed as instruments of international policy (Drezner, 2011; Farrell & Newman, 2019). In the works of D. Rodrik (2011) and J. Stiglitz (2017), it is emphasized that contemporary globalization is gradually transforming into a more fragmented system of economic relations. Similar conclusions are presented in the studies of R. Baldwin and S. Evenett (2020), who analyze the impact of geopolitical competition on the transformation of global value chains. In addition, research by S. Evenett (2019) demonstrates that trade conflicts and protectionist policies significantly influence the structure of international trade.

An important place in contemporary research is occupied by the concept of connectography, which proposes a new approach to the analysis of the global economy. In the works of P. Khanna (2016), connectography is viewed as a system of global infrastructural, economic, and technological networks that shape a new structure of the world order. The author emphasizes that in the modern world, economic relations are increasingly determined not only by the political borders of states but also by networks of infrastructure, logistics, energy, and digital communications. The further development of the network approach to the analysis of the global economy is presented in the works of S. Sassen (2006), M. Castells (2010), and T. Friedman (2005), which demonstrate that global networks create a new configuration of economic interaction among countries, cities, and corporations.

At the same time, an important direction of contemporary research concerns the transformation of the global economic order under conditions of increasing geoeconomic competition. In the works of J. Bhagwati (2004), globalization is viewed as a key factor in economic development and the integration of national economies into the world system. Similar approaches are developed by J. Frieden (2007), who analyzes the historical evolution of global capitalism and the formation of international economic institutions. At the same time, the research of B. Cohen (2008) demonstrates that international political economy has developed as a separate academic discipline that combines economic and political approaches to the analysis of global economic processes.

Contemporary studies also emphasize the transformation of the world economy under the influence of financial crises and geopolitical conflicts. In the works of A. Tooze (2018), the impact of global financial crises on the international economic system and its institutions is analyzed. Analytical reports of international organizations also confirm the presence of structural changes in the global economy. In particular, studies by the World Bank, the World Trade Organization, and UNCTAD demonstrate that the modern world economy is characterized by the transformation of global supply chains, the intensification of economic competition, and the formation of new models of international economic interaction (World Bank, 2020; UNCTAD, 2023; WTO, 2023).

The further development of international political economy research is associated with rethinking the role of network structures in shaping global economic interaction. Contemporary scholars increasingly emphasize that economic interdependence is formed not only through trade and investment flows but also through complex infrastructural, financial, and digital networks that connect states, transnational corporations, and international institutions. In this context, the network approach makes it possible to consider the world economy as a system of interconnected economic nodes, where the position of individual states within global networks determines their economic capabilities and level of influence in international economic relations. Similar approaches have been developed in the works of M. Castells (2010) and S. Sassen (2006), who emphasize that the modern economy increasingly functions as a networked environment in which economic power is determined by access to global flows of information, capital, and technology.

At the same time, the analysis of contemporary literature indicates that the relationship between global economic networks and international conflicts remains insufficiently explored. Most scholarly works address either the issues of globalization and economic interdependence or the questions of geoeconomic competition and economic security, while the integration of the network approach and the concept of connectography into the study of the transformation of international economic relations remains limited. Therefore, the application of the connectographic approach makes it possible to expand the existing theoretical framework for analyzing the global economy and to examine more deeply the mechanisms of interaction between economic interdependence, network structures, and international conflicts. In this context, the present study is aimed at a systematic analysis of the role of global economic networks in the transformation of international economic relations and at identifying their influence on the formation of the contemporary structure of international economic interaction.

AIMS AND OBJECTIVES

The aim of the article is to examine the role of global economic networks in the transformation of international economic relations under conditions of intensifying geoeconomic competition and international conflicts, based on a connectographic approach. In the modern global economy, economic interactions are increasingly shaped by complex network structures that connect states, transnational corporations, financial institutions, and infrastructure systems. This necessitates the analysis of new mechanisms of economic interaction that determine the structure of contemporary international economic relations.

To achieve this objective, the study sets the following tasks:

- to analyze theoretical approaches to the study of economic interdependence and global economic networks;
- to examine the functioning of global production and trade networks in the modern world economy;
- to determine the role of geoeconomic factors and international conflicts in the transformation of international economic relations;
- to substantiate the potential of the connectographic approach for analyzing the network structure of the global economy.

The implementation of these tasks makes it possible to deepen the understanding of current processes of transformation in international economic relations and to identify new analytical approaches to the study of global economic interaction.

METHODS

The empirical analysis is based on international statistical data reflecting economic interactions among countries. The study covers the period 2000–2024 and includes a sample of countries that constitute the contemporary global economic system. Indicators of international trade are represented by bilateral export and import flows obtained from the UN Comtrade database. Data on foreign direct investment were taken from the UNCTAD Statistics database, while macroeconomic indicators, including gross domestic product, were obtained from the World Bank's World Development Indicators database. The use of these sources ensures international comparability of the data and allows for the analysis of global economic interactions over time.

To analyze the structure of international economic relations, the world economy is represented as a network of interconnected countries. In this model, countries function as network nodes, while economic interactions between them form the edges of the network. The weight of the connection between countries is determined by the intensity of bilateral trade flows:

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$$W_{ij} = Trade_{ij}, \quad (1)$$

where W_{ij} — is the weight of the connection between countries i and j, and $Trade_{ij}$ — represents the volume of bilateral trade between them. The global economic network is formally represented as a graph:

$$G=(V, E), \quad (2)$$

where V — the set of countries (network nodes), while E — represents the set of connections (edges) between them.

In this study, network analysis is employed to operationalize the concept of connectography, according to which the world economy is viewed as a system of interconnected economic networks formed by flows of trade, investment, and infrastructural interaction. Within this approach, not only is the volume of economic flows important, but also the position of countries within the structure of global economic networks. To assess the position of countries within the global economic system, network analysis tools are applied, which are widely used in the study of complex economic systems. First, degree centrality determines the level of a country's economic integration into the global network:

$$C_D(i)=\sqrt{Wij}, \quad (3)$$

where Wij — the intensity of economic connections between countries i and j.

Second, betweenness centrality is used to identify countries that play a key role in the transit of global economic flows. Third, network density is calculated to characterize the overall level of connectivity within the global economic system:

$$D=\frac{2E}{N(N-1)}, \quad (4)$$

where E — the number of economic connections in the network, where N — the number of countries.

The analysis is conducted dynamically for the period 2000–2024, which makes it possible to trace structural changes in the global economic network and the transformation of international economic relations under contemporary conditions.

RESULTS

Empirical analysis of the relationship between international economic relations and conflict dynamics constitutes an important area of contemporary research on global security. Over recent decades, the processes of economic globalization have significantly transformed the structure of the world economy, strengthening the interdependence of states in the spheres of trade, investment, and financial flows. In this context, the question of whether economic integration can reduce the risks of conflicts or, conversely, create new sources of tension becomes particularly relevant. Therefore, the study of the interaction between economic processes and security factors is considered one of the key directions in the analysis of the modern system of international relations.

Within the framework of this study, a panel dataset was constructed that combines statistics on armed conflicts with international macroeconomic indicators. Such an approach makes it possible to evaluate the relationship between the economic integration of states and the intensity of conflict activity over time. The analysis is based on data from international statistical databases containing information on the number of conflicts, volumes of international trade, inflows of foreign direct investment, and military expenditures. Integrating these indicators into a panel structure of "country–year" allows for the examination of long-term trends in the development of conflict dynamics in relation to the economic processes of globalization.

It is important to emphasize that international economic relations may influence conflict dynamics through different mechanisms. On the one hand, the strengthening of trade and investment ties creates economic interdependence between states, which increases the economic costs of conflict and may serve as a deterrent factor. On the other hand, economic globalization may be accompanied by an uneven distribution of benefits among different social and political groups, which sometimes creates conditions for socio-economic tensions and political instability. Thus, the influence of international economic processes on conflict dynamics is complex and multidimensional.

Given the above considerations, the subsequent analysis is aimed at identifying empirical patterns of interaction between economic variables and conflict intensity in the global economy. First, the overall dynamics of conflict activity and economic integration at the global level are examined, after which a quantitative assessment of the impact of key economic indicators on conflict dynamics is conducted using panel regression models. This approach makes it possible to combine descriptive and econometric analysis and to form a more comprehensive understanding of the role of international economic relations in shaping contemporary security processes.

In order to identify general trends in the interaction between economic integration and conflict dynamics, the first stage involves analyzing their evolution at the global level. Such an approach makes it possible to determine how key indicators of international economic interaction and conflict intensity have changed during the study period, as well as to assess their possible synchronicity in the long-term dynamics. The visualization of aggregated data over time allows for the identification of structural breaks associated with global economic crises, regional conflicts, and transformations of the international economic system.

In this context, particular interest lies in the relationship between the growth rates of economic openness and changes in the level of conflict activity. The expansion of international trade is generally accompanied by the deepening of economic ties between countries, which potentially reduces incentives for conflict escalation. At the same time, the contemporary international system is characterized by increasing geopolitical competition, which may offset the stabilizing effect of economic integration. Therefore, analyzing the dynamics of these processes over time provides a more comprehensive understanding of their interrelationship.

Given these considerations, Figure 1 presents the global dynamics of changes in trade openness and conflict intensity during the period 2000–2024. Such a visualization makes it possible to assess the general trends in the development of international economic integration and their possible relationship with transformations in the global security environment.

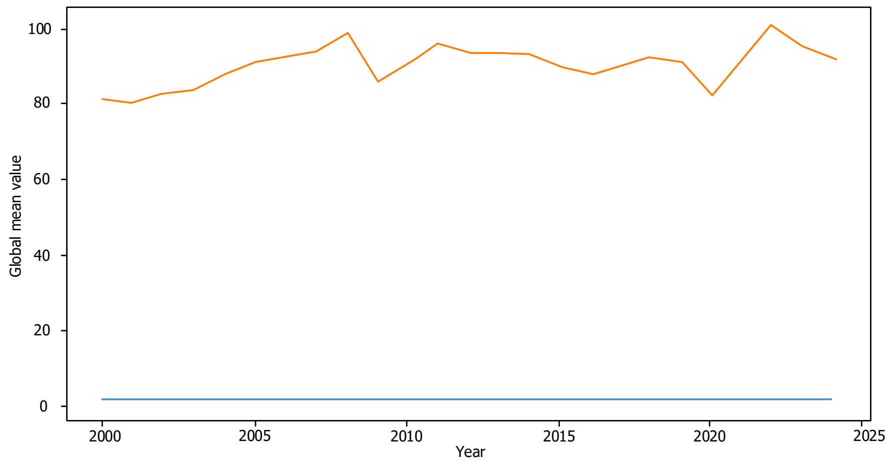

Figure 1. Global dynamics of armed conflicts and trade openness in the world economy (2000–2024). Note: The figure was generated using the Python programming environment. *(Source: compiled by the author based on data from the Uppsala Conflict Data Program and the World Bank (World Development Indicators database)*

Overall, the results of the visual analysis indicate that an increase in economic openness is not accompanied by an unequivocal reduction in conflict activity within the global economy. During different periods of the studied interval, both phases of relative stabilization and stages of rising conflict intensity can be observed. These fluctuations may be associated with regional political crises, shifts in the global balance of power, or transformations in the international economic order. Thus, at the macro level, the interaction between economic and security processes can be characterized as complex and nonlinear.

Particular attention should be paid to the fact that even during periods of active growth in international trade, conflict activity does not demonstrate a consistent decline. This may indicate that economic integration alone is not a sufficient condition for ensuring stability in the international environment. Instead, it interacts with other structural factors, such as political competition, uneven economic development, and regional geopolitical tensions.

Moreover, contemporary globalization processes are accompanied by significant differentiation in economic outcomes among countries and regions. In some states, economic integration contributes to rapid economic growth and improvements in living standards, while in others it may intensify structural imbalances and socio-economic inequality. Such disparities may sometimes act as catalysts for political instability, which in turn can influence the emergence or escalation of conflicts.

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Another important factor is the role of international investment flows, which constitute one of the key elements of modern economic interaction among states. Foreign direct investment can stimulate economic development, facilitate technological modernization, and enhance the competitiveness of national economies. At the same time, the concentration of investments in strategically important sectors of the economy may intensify political competition for access to resources, thereby creating additional risks for domestic stability.

Given these considerations, it becomes necessary to move from a descriptive analysis of global trends to a more formalized quantitative examination of the relationship between economic indicators and conflict dynamics. Therefore, the next stage of the study involves the construction of a panel econometric model that allows for the assessment of the impact of key variables of international economic relations on the level of conflict intensity while accounting for both temporal and country-specific characteristics. The results of this analysis are presented in Table 1, which reports the estimated coefficients of the model and their statistical significance.

Table 1. Panel regression results: impact of international economic variables on conflict incidence. *(Source: author's calculations based on data from the Uppsala Conflict Data Program database, World Bank World Development Indicators, and United Nations Conference on Trade and Development Statistics)*

Variable	Coefficient	Std. Error	p-value
Trade openness (% GDP)	-0.018	0.006	0.004
FDI inflows (signed log)	0.073	0.024	0.002
Military expenditure (% GDP)	0.011	0.017	0.521

The results of the panel regression presented in Table 1 allow for a quantitative assessment of the relationship between key indicators of international economic relations and conflict dynamics. The use of a model with country and year fixed effects makes it possible to account for specific structural characteristics of states as well as global temporal factors that may influence the intensity of conflicts. Such an approach provides a more accurate estimation of the effects of economic variables, as it allows for controlling country-specific characteristics that remain constant over time and general macro trends of the international system.

For a clearer interpretation of the obtained estimates, the results of the regression analysis are additionally presented in graphical form. The visualization of the model coefficients together with their confidence intervals makes it possible to assess both the direction and the statistical significance of the influence of individual economic variables on conflict dynamics. This approach facilitates the comparison of the relative strength of different factors and contributes to a clearer understanding of the role of economic integration in shaping conflict processes. For this purpose, Figure 2 presents a graphical interpretation of the results of the panel regression model.

It should also be noted that the estimated coefficients reflect the average effect of economic variables across the entire panel dataset constructed according to the "country–year" principle. Such an approach allows for identifying general patterns of interaction between economic integration and conflict dynamics; however, it also highlights significant variability among individual countries and regions. Therefore, the graphical presentation of the regression results represents an important element of the analysis, as it allows the magnitude of the estimated effects and their statistical uncertainty to be demonstrated visually, thereby facilitating the interpretation of the results within the broader context of research on international economic relations.

In addition, the obtained results should be interpreted within the broader context of structural transformations of the global economic system. The relationship between economic integration and conflict dynamics is shaped not only by the intensity of trade and investment flows but also by the position of countries within global economic networks and by the institutional and geopolitical environment in which these interactions occur. Consequently, the effects identified in the panel regression model reflect general systemic tendencies rather than deterministic causal relationships for individual countries. This underscores the importance of combining quantitative econometric analysis with broader theoretical interpretations that take into account the complex interaction between economic interdependence, geopolitical competition, and the evolving structure of the global economy.

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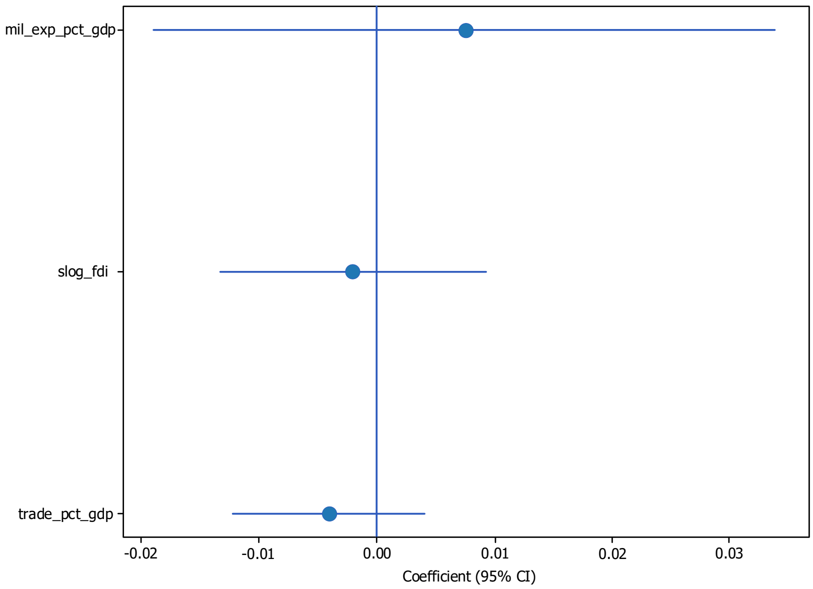

Figure 2. Estimated effects of international economic variables on conflict incidence (two-way fixed effects model). Note: Econometric calculations and data processing were performed using the Python statistical environment. *(Source: compiled by the author based on data from the Uppsala Conflict Data Program and the World Bank (World Development Indicators database)*

According to the modeling results, trade openness demonstrates a negative relationship with the number of conflicts, indicating a potential stabilizing effect of economic interdependence. An increasing level of integration of states into the international trading system may reduce the likelihood of conflict interactions through the strengthening of economic interdependence and the rising economic cost of conflict for economic actors.

In contrast, inflows of foreign direct investment show a positive relationship with conflict intensity. This result may be explained by the fact that significant investment flows are often directed toward countries with high resource potential or toward transitional economies where institutional instability and domestic political competition may intensify socio-economic tensions.

The impact of military expenditures in the baseline model appears to be less pronounced and statistically unstable. This may indicate that changes in defense budgets do not always directly translate into changes in the level of conflict, as military spending may perform both deterrent and escalation functions depending on the political context.

The obtained results make it possible to better understand the structural mechanisms of interaction between international economic integration and conflict dynamics. The negative relationship between trade openness and the number of conflicts supports the argument that economic interdependence among states may perform a stabilizing function within the international system. The growth of trade flows creates mutual economic interests among countries and increases the economic losses that may arise in the event of conflict escalation. In this context, international trade acts as a mechanism of economic deterrence, since the disruption of trade ties may lead to substantial macroeconomic losses.

At the same time, the results indicate that the influence of economic integration on security processes is not unequivocal. Economic globalization may generate both stabilizing and destabilizing effects. On the one hand, integration into global markets contributes to economic growth and an increase in welfare levels, which may potentially reduce social tensions. On the other hand, economic openness may intensify structural imbalances, especially in countries with weak institutions, where the benefits of globalization are distributed unevenly.

The positive relationship between foreign direct investment inflows and conflict intensity may also suggest that investment activity often concentrates in countries with high resource potential or strategic economic importance. Under such conditions, economic resources may become objects of political competition among different groups of influence, which sometimes leads to the intensification of internal political contradictions. Thus, investment flows may act not only as a factor of economic development but also as a potential source of socio-political tensions.

Moreover, the modeling results emphasize the importance of taking into account the institutional environment within which international economic relations operate. Economic integration may produce different outcomes depending on the quality of governance, the level of the rule of law, and the effectiveness of economic policy. In countries with stable institutions, economic openness generally contributes to the reduction of conflict risks, whereas in states characterized by high levels

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of political instability, it may be accompanied by the intensification of internal contradictions. It is also important to note that international economic processes influence conflict dynamics indirectly through the transformation of the structure of national economies. Integration into global markets may alter employment structures, redistribute income across different sectors of the economy, and affect the social stratification of society. Such transformations sometimes create new socio-economic lines of tension that may manifest themselves in the form of political or social conflicts.

At the same time, the obtained results do not indicate a direct causal relationship between economic variables and conflict intensity. Rather, they reflect broader structural trends that characterize the interaction between economic globalization and security processes. Conflict dynamics are shaped by a wide range of factors, including political institutions, historical conditions, ethnic composition of the population, and the geopolitical environment. Global transformations of the international economic system that occurred during the analyzed period also play a particularly important role in this context. After the end of the Cold War, the international economy was characterized by a deepening of globalization processes; however, in recent years, an increasing level of geopolitical fragmentation and economic protectionism has been observed. These processes may alter the nature of the interaction between economic integration and conflict dynamics, creating new risks for international security.

Overall, the results of the analysis confirm that international economic relations represent an important structural component of the contemporary global security system. They shape economic incentives that may either restrain conflict escalation or generate new sources of tension in the international environment. For this reason, the study of the relationship between economic integration and conflict dynamics becomes particularly relevant under conditions of increasing geopolitical turbulence and the transformation of the global economic order. For a more detailed understanding of the relationship between economic integration and conflict dynamics, it is useful to examine the graphical interpretation of the obtained data. Although the results of the panel regression make it possible to estimate the average effect of economic variables across the entire sample, they do not fully reflect the distribution of observations across countries and years. In this context, it is important to analyze the empirical distribution of the indicators directly, which makes it possible to identify potential clusters of countries and to assess the degree of variability in the relationship between trade openness and conflict intensity. For this purpose, Figure 3 presents a scatter plot that illustrates the distribution of observations in the coordinates "trade openness – number of conflicts" for all countries and years included in the analysis. Such visualization not only confirms the results of the regression model but also demonstrates the overall structure of the relationship between economic integration and conflict activity in the global economy.

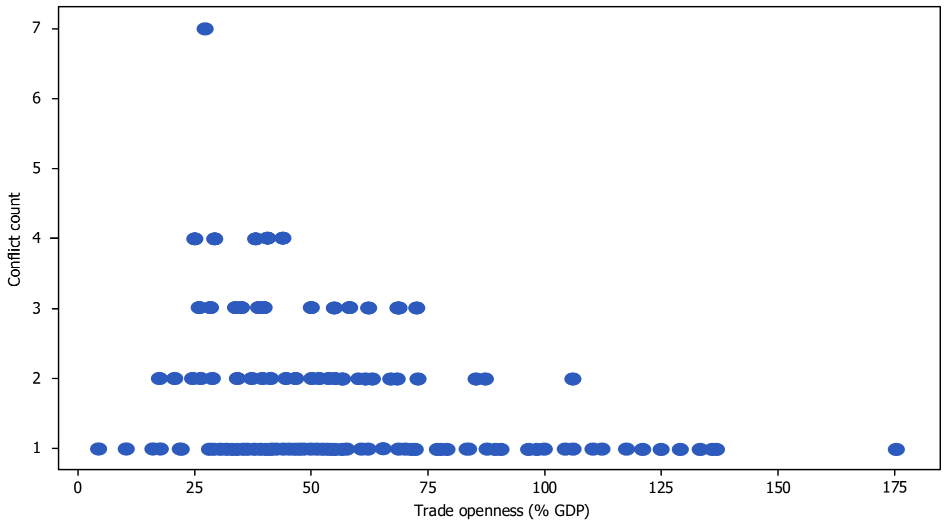

Figure 3. Relationship between trade openness and conflict incidence across countries (2000–2024). Note: visualization produced using Python. *(Source: compiled by the author based on data from the Uppsala Conflict Data Program (UCDP) and the World Bank World Development Indicators (WDI) databases)*

The distribution of observations demonstrates a general tendency toward lower levels of conflict in countries with higher levels of trade openness. At the same time, the significant dispersion of points indicates that economic integration alone cannot fully explain the differences in conflict dynamics across countries. The analysis of the distribution of observations presented in Figure 3 indicates the presence of a moderate negative relationship between trade openness and conflict intensity. On average, countries with higher levels of integration into the international trading system demonstrate lower levels of conflict activity. This tendency may be explained by the effect of economic interdependence, whereby increasing volumes of international trade raise the economic costs associated with potential conflicts.

At the same time, the structure of the distribution of points in the graph demonstrates considerable dispersion, which indicates the heterogeneity of the relationship between economic integration and conflict dynamics. This suggests that the impact of trade openness on security processes depends on a number of additional factors, including institutional stability, political regime characteristics, and the level of economic development of a country. Particular attention is drawn to the presence of a group of observations characterized simultaneously by high levels of trade openness and significant conflict activity. Such a configuration may be typical for states that, despite their active integration into international economic processes, remain vulnerable to internal political or ethnic conflicts.

Another cluster of observations, by contrast, demonstrates low levels of conflict under conditions of high economic openness. These countries are typically characterized by more stable political institutions and a higher level of economic diversification, which reduces the risks of conflict escalation. The obtained results also indicate that the relationship between international economic relations and conflict dynamics is not strictly linear. Economic integration may simultaneously generate stabilizing effects associated with economic interdependence as well as potential risks arising from structural transformations of the economy.

In addition, it should be taken into account that international investment flows and trade connections may alter the internal structure of the economy by facilitating the redistribution of resources among sectors. Such redistribution is sometimes accompanied by socio-economic tensions that may increase the risk of internal conflicts. Overall, the results of the empirical analysis confirm that international economic relations play an important role in shaping contemporary conflict dynamics. At the same time, their influence is realized through a complex system of interaction among economic, political, and institutional factors.

DISCUSSION

The obtained results indicate that international economic relations play an important role in shaping the conflict dynamics of the contemporary international system. The negative relationship between trade openness and the number of conflicts identified in the econometric modeling is consistent with the principles of the theory of economic interdependence, according to which the expansion of trade relations increases the economic costs of conflict and encourages states to maintain stable international relations (Keohane & Nye, 2012; Martin, Mayer, & Thoenig, 2008). In this context, international trade can be considered a mechanism of economic deterrence that increases the cost of conflict for economic actors.

The results also support the assumptions of commercial liberalism, according to which economic integration contributes to the formation of a more peaceful international environment. Previous studies show that the growth of trade interdependence between countries may reduce the likelihood of conflict escalation by creating mutual economic interests and strengthening institutional cooperation (Russett & Oneal, 2001; Mansfield & Pollins, 2003). Thus, the findings of the present analysis are consistent with empirical studies that demonstrate the stabilizing effect of international trade.

At the same time, the results indicate the complex nature of the interaction between economic globalization and conflict dynamics. Although trade may function as a stabilizing factor, other aspects of economic integration may have more ambiguous consequences. In particular, the positive relationship between foreign direct investment inflows and conflict intensity identified in this analysis may be explained by the fact that investment flows are often concentrated in countries with high resource potential or in transitional economies where institutional instability increases the risks of socio-political conflicts (Collier & Hoeffler, 2004).

Such results correspond with the literature emphasizing the role of economic resources in the formation of conflict processes. Research shows that the concentration of economic resources or external financial inflows may create additional incentives for political competition among different groups of influence, which sometimes leads to the escalation of internal conflicts (Fearon & Laitin, 2003; Blattman & Miguel, 2010). In this context, international investment may act not only as a factor of economic development but also as a potential catalyst of political instability.

At the same time, the results show that the impact of military expenditures on conflict dynamics is less clear. The absence of a statistically significant effect in the baseline model may be explained by the fact that defense spending can perform both deterrent and escalation functions depending on the political and strategic context. In some cases, increases in military expenditures may serve as an instrument of deterrence against potential conflicts, while in others they may intensify arms races and increase the risks of confrontation (Mearsheimer, 2001).

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It is also important to consider the role of the institutional environment in which international economic relations operate. Research demonstrates that the impact of economic globalization on political stability largely depends on the quality of state institutions, the level of the rule of law, and the effectiveness of economic policy (Rodrik, 2011; Stiglitz, 2017). In countries with stable institutions, economic integration generally contributes to economic development and political stability, whereas in states with weak institutions, it may be accompanied by the intensification of internal contradictions.

Moreover, international economic processes may influence conflict dynamics through the transformation of the socio-economic structure of society. Economic integration can alter employment structures, redistribute income across sectors of the economy, and affect social stratification, sometimes creating new lines of socio-economic tension (Acemoglu & Robinson, 2012). Such transformations may intensify political competition and increase the risks of conflict escalation.

At the same time, the results confirm that the relationship between international economic relations and conflict dynamics is multidimensional and cannot be explained solely by economic factors. Conflicts are shaped by a broad spectrum of political, social, and historical factors, including ethnic tensions, geopolitical interests, and regional security structures (Blattman & Miguel, 2010).

Under contemporary conditions, the global economy is experiencing a period of increasing geopolitical fragmentation accompanied by the strengthening of economic protectionism and the transformation of global production chains. These processes may alter the nature of the relationship between economic integration and conflict dynamics, creating new challenges for international security (Farrell & Newman, 2019).

Overall, the results of the study confirm that international economic relations constitute an important structural element of the contemporary global security system. The deepening of economic integration may contribute to the reduction of conflict risks; however, its impact largely depends on the institutional and political conditions within which national economies operate. Therefore, further research should consider the complex interaction of economic, political, and institutional factors shaping contemporary conflict dynamics.

An important context for interpreting the obtained results is the ongoing transformation of the global economic system, which is characterized by growing geoeconomic competition among major centers of the world economy. Over the last decade, instruments of economic security have played an increasingly significant role in international economic relations, including investment screening mechanisms, technological restrictions, and the restructuring of global supply chains. These processes demonstrate that economic interdependence is no longer perceived solely as a factor of stability but increasingly as a potential source of vulnerability for states (Farrell & Newman, 2019; Rodrik, 2011).

These developments have become particularly relevant in the context of the emergence of a new economic security policy in Western countries. The concept of "de-risking", actively discussed in the policy frameworks of the European Union and the United States, aims to reduce critical economic dependencies without completely severing economic ties. In this context, international economic relations are increasingly integrated into the sphere of security policy, transforming traditional perceptions of the role of economic integration in maintaining the stability of the international system (Farrell & Newman, 2019; Stiglitz, 2017).

Another important factor that has significantly influenced contemporary conflict dynamics is the full-scale war launched by Russia against Ukraine in 2022. This conflict has demonstrated that even under conditions of deep economic interdependence between states, the risk of military escalation may remain high. Moreover, the war has led to substantial changes in global energy and trade flows and has stimulated the revision of economic security policies in many countries worldwide (Acemoglu & Robinson, 2012; Stiglitz, 2017).

In this context, the results of the present study confirm that economic globalization is not an unambiguous guarantee of stability within the international system. Although economic integration may create incentives for peaceful interaction, its impact largely depends on the political and institutional environment. Consequently, contemporary research in international economic relations increasingly considers economic interdependence not only as a factor of economic development but also as an element of strategic competition among states (Farrell & Newman, 2019; Rodrik, 2011).

CONCLUSIONS

Within the framework of the conducted study, the relationship between key indicators of international economic relations and conflict dynamics in the global economy during the period 2000–2024 was analyzed. For this purpose, a panel dataset was constructed that combines statistics on armed conflicts with macroeconomic indicators of economic integration, including trade openness, foreign direct investment inflows, and military expenditures. The use of a panel econometric model with fixed effects made it possible to account for the specific structural characteristics of individual countries as well as global temporal factors influencing conflict dynamics.

The results of the empirical analysis indicate the presence of a negative relationship between trade openness and the number of conflicts, which confirms the assumption about the stabilizing role of economic interdependence. The deepening of trade integration increases the economic cost of conflict escalation and creates mutual economic interests among states, which may reduce the likelihood of conflicts. Thus, international trade acts as an important component of the economic deterrence mechanism in the contemporary system of international relations. At the same time, the results show that the influence of other economic variables is more ambiguous. In particular, foreign direct investment inflows demonstrate a positive association with conflict activity, which may be related to the concentration of investment flows in countries with high resource potential or unstable institutional environments. In such cases, investment activity may be accompanied by intensified political competition for access to economic resources.

In addition, the conducted analysis did not reveal a clearly expressed statistically significant relationship between military expenditures and conflict dynamics in the baseline model. This may indicate that defense spending can perform different functions depending on the political and geopolitical context, acting either as a deterrent or as a potential factor of escalation. Overall, the results of the study confirm that international economic relations represent an important structural factor of the contemporary global security system. Economic integration can generate both stabilizing and potentially destabilizing effects depending on the institutional environment, political stability, and the structure of national economies. Therefore, the analysis of the interaction between economic processes and security factors requires a comprehensive approach that takes into account both economic and political determinants of conflict dynamics.

Further research in this area may focus on expanding the empirical dataset, incorporating additional institutional variables, and analyzing regional specificities of the relationship between economic integration and conflict intensity. This would allow for a deeper understanding of the mechanisms through which international economic processes influence the transformation of the contemporary system of international security. The obtained results also have important practical implications for the formation of modern economic security policy and international economic cooperation. Conditions of increasing geopolitical turbulence and the transformation of global economic linkages require states to adopt a more comprehensive approach to combining economic and security policies. The deepening of economic integration may remain an important instrument for stabilizing international relations; however, the effectiveness of this mechanism largely depends on the quality of the institutional environment, the level of political stability, and the ability of states to maintain a balance between economic openness and strategic autonomy. Therefore, the further development of international economic relations should be accompanied by the establishment of effective mechanisms of global economic governance capable of reducing conflict risks and supporting the stability of the global economic system.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

All authors have contributed equally.

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REFERENCES

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1. Baldwin, D. A. (1985). Economic statecraft. Princeton University Press. https://press.princeton.edu/books/paperback/9780691021786/economic-statecraft
2. Baldwin, R. (2016). The great convergence: Information technology and the new globalization. Harvard University Press. https://www.hup.harvard.edu/books/9780674660483
3. Baldwin, R., & Evenett, S. J. (2020). COVID-19 and trade policy: Why turning inward won't work. CEPR Press. https://cepr.org/publications/books-and-reports/covid-19-and-trade-policy-why-turning-inward-wont-work
4. Barabási, A.-L. (2016). Network science. Cambridge University Press. http://networksciencebook.com
5. Barbieri, K. (1996). Economic interdependence: A path to peace or a source of interstate conflict? *Journal of Peace Research, 33*(1), 29–49. https://doi.org/10.1177/0022343396033001003
6. Blackwill, R. D., & Harris, J. M. (2016). War by other means: Geoeconomics and statecraft. Harvard University Press. https://www.hup.harvard.edu/books/9780674737215
7. Castells, M. (2010). The rise of the network society (2nd ed.). Wiley-Blackwell. https://doi.org/10.1002/9781444319518
8. Coe, N. M., Dicken, P., & Hess, M. (2008). Global production networks: Realizing the potential. *Journal of Economic Geography, 8*(3), 271–295. https://doi.org/10.1093/jeg/lbn002
9. Drezner, D. W. (2011). Theories of international politics and zombies. Princeton University Press. https://press.princeton.edu/books/paperback/9780691147837/theories-of-international-politics-and-zombies
10. Evenett, S. J. (2019). Protectionism, state discrimination, and international business since the onset of the global financial crisis. *Journal of International Business Policy, 2*(1), 9–36. https://doi.org/10.1057/s42214-019-00021-0
11. Farrell, H., & Newman, A. L. (2019). Weaponized interdependence: How global economic networks shape state coercion. *International Security, 44*(1), 42–79. https://doi.org/10.1162/isec_a_00351
12. Friedman, T. L. (2005). The world is flat: A brief history of the twenty-first century. Farrar, Straus and Giroux. https://us.macmillan.com/books/9780374292881
13. Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy, 12*(1), 78–104. https://doi.org/10.1080/09692290500049805
14. Gilpin, R. (2001). Global political economy: Understanding the international economic order. Princeton University Press. https://press.princeton.edu/books/paperback/9780691086761/global-political-economy
15. Jackson, M. O. (2010). Social and economic networks. Princeton University Press. https://press.princeton.edu/books/paperback/9780691148209/social-and-economic-networks
16. Kali, R., & Reyes, J. (2007). The architecture of globalization: A network approach to international economic integration. *Journal of International Business Studies, 38*(4), 595–620. https://doi.org/10.1057/palgrave.jibs.8400286
17. Keohane, R. O., & Nye, J. S. (1977). Power and interdependence: World politics in transition. Little, Brown and Company. https://archive.org/details/powerinterdepend0000keoh
18. Khanna, P. (2016). Connectography: Mapping the future of global civilization. Random House. https://www.penguinrandomhouse.com/books/228314/connectography-by-parag-khanna/
19. Lake, D. A. (2009). Hierarchy in international relations. Cornell University Press. https://doi.org/10.7591/9780801457498
20. Luttwak, E. N. (1990). From geopolitics to geoeconomics: Logic of conflict, grammar of commerce. *The National Interest, 20*, 17–23. https://www.jstor.org/stable/42894676
21. Rodrik, D. (2011). The globalization paradox: Democracy and the future of the world economy. W. W. Norton & Company. https://wwnorton.com/books/9780393341287
22. Sassen, S. (2006). Territory, authority, rights: From medieval to global assemblages. Princeton University Press. https://press.princeton.edu/books/paperback/9780691138590
23. Stiglitz, J. E. (2017). Globalization and its discontents revisited: Anti-globalization in the era of Trump. W. W. Norton & Company. https://wwnorton.com/books/9780393355161
24. Wallerstein, I. (2004). World-systems analysis: An introduction. Duke University Press. https://doi.org/10.2307/j.ctv1131d1p
25. Bhagwati, J. (2004). *In defense of globalization*. Oxford University Press. https://global.oup.com/academic/product/in-defense-of-globalization-9780195170256
26. Cohen, B. J. (2008). *International political economy: An intellectual history*. Princeton University Press. https://press.princeton.edu/books/paperback/9780691135698
27. Dicken, P. (2015). *Global shift: Mapping the changing contours of the world economy* (7th ed.). Guilford Press. https://www.guilford.com/books/Global-Shift/Peter-Dicken/9781462519556
28. Frieden, J. A. (2007). *Global capitalism: Its fall and rise in the twentieth century*. W. W. Norton & Company. https://wwnorton.com/books/9780393058086
29. Gereffi, G. (2018). Global value chains and development: Redefining the contours of 21st century capitalism. *Cambridge University Press*. https://doi.org/10.1017/9781108559427
30. Nye, J. S. (2011). *The future of power*. PublicAffairs. https://www.publicaffairsbooks.com/titles/joseph-s-nye-jr/the-future-of-power/9781586488912
31. Tooze, A. (2018). *Crashed: How a decade of financial crises changed the world*. Viking. https://www.penguinrandomhouse.com/books/586114/crashed-by-adam-tooze
32. UNCTAD. (2023). *World investment report 2023: Investing in sustainable energy for all*. United Nations. https://unctad.org/publication/world-investment-report-2023
33. World Bank. (2020). *Global value chain development report 2020*. World Bank. https://doi.org/10.1596/978-1-4648-1457-0

34. WTO. (2023). *World trade report 2023: Re-globalization for a secure, inclusive and sustainable future*. World Trade Organization. https://www.wto.org/english/res_e/publications_e/wtr23_e.htm
35. Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Business. https://www.penguinrandomhouse.com/books/205066/why-nations-fail-by-daron-acemoglu-and-james-a-robinson/
36. Blattman, C., & Miguel, E. (2010). Civil war. *Journal of Economic Literature, 48*(1), 3–57. https://doi.org/10.1257/jel.48.1.3
37. Collier, P., & Hoeffler, A. (2004). Greed and grievance in civil war. *Oxford Economic Papers, 56*(4), 563–595. https://doi.org/10.1093/oep/gpf064
38. Fearon, J. D., & Laitin, D. D. (2003). Ethnicity, insurgency, and civil war. *American Political Science Review, 97*(1), 75–90. https://doi.org/10.1017/S0003055403000534
39. Mansfield, E. D., & Pollins, B. M. (2003). *Economic interdependence and international conflict: New perspectives on an enduring debate*. University of Michigan Press. https://doi.org/10.3998/mpub.17393
40. Martin, P., Mayer, T., & Thoenig, M. (2008). Make trade not war? *Review of Economic Studies, 75*(3), 865–900. https://doi.org/10.1111/j.1467-937X.2008.00492.x
41. Mearsheimer, J. J. (2001). *The tragedy of great power politics*. W. W. Norton & Company. https://wwnorton.com/books/9780393020250
42. Russett, B., & Oneal, J. R. (2001). *Triangulating peace: Democracy, interdependence, and international organizations*. W. W. Norton & Company. https://wwnorton.com/books/9780393977400
43. Rodrik, D. (2018). Populism and the economics of globalization. *Journal of International Business Policy, 1*(1–2), 12–33. https://doi.org/10.1057/s42214-018-0001-4
44. Baldwin, R. (2019). The globotics upheaval: Globalization, robotics, and the future of work. Oxford University Press. https://global.oup.com/academic/product/the-globotics-upheaval-9780190901763
45. IMF. (2023). *World economic outlook 2023: Navigating global divergences*. International Monetary Fund. https://www.imf.org/en/Publications/WEO

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ГЛОБАЛЬНІ ЕКОНОМІЧНІ МЕРЕЖІ ТА МІЖНАРОДНІ КОНФЛІКТИ В СИСТЕМІ МІЖНАРОДНИХ ЕКОНОМІЧНИХ ВІДНОСИН: КОНЕКТОГРАФІЧНИЙ ПІДХІД

Стаття присвячена дослідженню ролі глобальних економічних мереж у трансформації міжнародних економічних відносин в умовах посилення міжнародних конфліктів і геоекономічної конкуренції. Актуальність дослідження зумовлена зростанням геополітичної напруги, збільшенням кількості регіональних конфліктів, розширенням санкційних режимів і перебудовою глобальних ланцюгів постачання, що змінюють архітектуру міжнародних економічних відносин. За таких умов міжнародна економічна взаємодія визначається не лише традиційними торговельними та інвестиційними відносинами, а й складними мережевими структурами глобальної економіки.

У цьому контексті концепція конектографії дає змогу розглядати глобальну економіку як систему економічних мереж, що формують механізми взаємодії та взаємозалежності між державами, корпораціями й регіонами. Такий підхід забезпечує ширшу теоретичну перспективу для пояснення трансформації міжнародних економічних відносин протягом періоду, позначеного посиленням конкуренції та конфліктів.

Метою дослідження є аналіз впливу глобальних економічних мереж на розвиток і трансформацію міжнародних економічних відносин у контексті сучасних міжнародних конфліктів на основі конектографічного підходу. У дослідженні розглянуте функціонування глобальних торговельних, інвестиційних і технологічних мереж, а також їхня роль у формуванні моделей економічної взаємодії між країнами. Особлива увага приділена впливу економічної взаємозалежності на характер міжнародної конкуренції, використанню економічних інструментів у конфліктному середовищі та трансформації глобальних ланцюгів створення вартості.

Результати дослідження демонструють, що глобальні економічні мережі функціонують як механізми інтеграції світової економіки та водночас як інструменти геоекономічного впливу. Посилення економічної взаємозалежності супроводжується активнішим використанням торговельних обмежень, санкцій, технологічних бар'єрів і політик економічної безпеки як інструментів міжнародної конкуренції. Сучасні міжнародні економічні відносини характеризуються фрагментацією глобальної економіки, перерозподілом економічних зв'язків і формуванням нових мережевих конфігурацій глобальної взаємодії.

Ключові слова: глобальні економічні мережі, конектографія, геоекономічні конфлікти, економічна взаємозалежність, світова економіка, глобалізація, економічна фрагментація, глобальні ланцюги створення вартості, економічна безпека

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