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## SHADOWIZATION OF INTERNATIONAL TRADE IN A NEO-INSTITUTIONAL PERSPECTIVE: REGULATORY ARBITRAGE AND STRUCTURAL DUALITY

## ТІНІЗАЦІЯ МІЖНАРОДНОЇ ТОРГІВЛІ У НЕОІНСТИТУЦІЙНІЙ ПЕРСПЕКТИВІ: РЕГУЛЯТОРНИЙ АРБИТРАЖ І СТРУКТУРНА ДУАЛЬНІСТЬ

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**Abstract.** *The article proposes a neo-institutional interpretation of the shadowization of international trade, in which the phenomenon of the shadow economy is analysed through the categories of transaction costs, institutional dysfunctions and regulatory arbitrage. The purpose of the article is to demonstrate that the structural duality of economic systems - the sustained coexistence of formal and informal sectors - is not a self-explanatory characteristic of the economic order but an analytically derivable consequence of specific institutional configurations. It is substantiated that in international trade, institutional gaps between jurisdictions generate systemic incentives for regulatory arbitrage, which transforms the shadow economy from a marginal anomaly into a structurally embedded component of cross-border economic relations. A typology of institutional mechanisms of shadowization of international trade is proposed, including trade misinvoicing, jurisdictional tax engineering, and digital channels for circumventing fiscal control. It is demonstrated that the digitalization of international trade creates a qualitatively new dimension of shadowization, where traditional control mechanisms prove ineffective and the boundary between optimization and shadow activity becomes increasingly blurred. The concept of structural duality is reinterpreted as a product of institutional misalignment: the informal sector is sustained not by cultural inertia or underdevelopment, but by the rational response of agents to high transaction costs of legal activity and weak enforcement. The article concludes that effective de-shadowization policy requires not so much the strengthening of repressive mechanisms as the reduction of institutional barriers, the harmonization of regulatory regimes between jurisdictions and the creation of conditions under which legal activity becomes economically more attractive than shadow activity.*

**Key words:** *shadow economy, shadowization, international trade, neo-institutional approach, regulatory arbitrage, structural duality, transaction costs, institutional dysfunction, trade misinvoicing, tax engineering, digital trade, de-shadowization*

**Анотація.** У статті запропоновано неоінституційну інтерпретацію тінзації міжнародної торгівлі, у межах якої феномен тіньової економіки аналізується через категорії трансакційних витрат, інституційних дисфункцій та регуляторного арбітражу. Мета статті - показати, що структурна дуальність економічних систем - стійке співіснування формального і неформального секторів - є не самоочевидною характеристикою господарського устрою, а аналітично виводиться з конкретних інституційних конфігурацій. Обґрунтовано, що у міжнародній торгівлі інституційні розриви між юрисдикціями генерують системні стимули до регуляторного арбітражу, який перетворює тіньову економіку з маргінальної аномалії на структурно вбудований компонент транскордонних економічних відносин. Запропоновано типологію інституційних механізмів тінзації міжнародної торгівлі, включаючи маніпулювання торговельною вартістю, юрисдикційну податкову інженерію та цифрові канали обходу фіскального контролю. Показано, що цифровізація міжнародної торгівлі формує якісно новий вимір тінзації, де традиційні механізми контролю виявляються неефективними, а межа між оптимізацією і тіньовою діяльністю стає дедалі менш чіткою. Концепцію структурної дуальності переосмислено як продукт інституційної неузгодженості: неформальний сектор підтримується не культурною інерцією чи відсталістю, а раціональною реакцією агентів на високі трансакційні витрати легальної діяльності та слабке правозастосування. Зроблено висновок, що ефективна політика детінізації потребує не стільки посилення репресивних механізмів, скільки зниження інституційних бар'єрів, гармонізації регуляторних режимів між юрисдикціями та створення умов, за яких легальна діяльність стає економічно привабливішою за тіньову.

**Ключові слова:** тіньова економіка, тінзація, міжнародна торгівля, неоінституційний підхід, регуляторний арбітраж, структурна дуальність, трансакційні витрати, інституційна дисфункція, маніпулювання торговельною вартістю, податкова інженерія, цифрова торгівля, детінізація

**Introduction.** The shadowing of economic activity appears as a multidimensional phenomenon that combines legal and illegal business activities and operates at the interface of the formal and informal sectors. It reflects a complex system of relationships between economic entities that interact within different regulatory regimes, use a wide range of organizational and economic mechanisms, and form alternative channels for the movement of financial and material resources. Shadow practices are not limited to tax evasion or violation of the law. They include a wider range of economic actions aimed at optimizing costs, minimizing transactional restrictions, and adapting to institutional dysfunctions. That is why the study of shadowing requires an analytical framework that can combine the economic, institutional, and managerial dimensions of the problem. The evolution of the theoretical discourse of the shadow economy has deep historical roots. Already within classical political economy, there is awareness of informal practices and the duality of economic processes. However, the shadow economy was conceptualized as an independent object of research only in the second half of the twentieth century. The development of modern approaches to its analysis occurred on a transdisciplinary basis, leading to various conceptual interpretations. Economic approaches focused on the influence of the tax burden, regulatory restrictions, and the level of economic development. Sociological approaches are considered shadowing because of social norms, cultural attitudes, and behavioural models. Political science concepts linked it to the quality of public administration, the level of corruption, and the effectiveness of institutions. Management, accounting, and statistical approaches focused on mechanisms for controlling, monitoring, and measuring the scale of informal activity. Among these approaches, the neo-institutional perspective has particular methodological potential for analyzing shadowing in international trade. In contrast to approaches that treat the shadow economy as a deviation, a cultural atavism, or a consequence of insufficient control, neo-institutionalism offers an explanatory framework in which shadowing is a rational response of economic agents to specific institutional configurations (North, 1990). In international trade, this logic becomes particularly pronounced, since cross-border transactions by definition cross the boundaries of different institutional environments, creating systemic opportunities to exploit differences across jurisdictions. An important characteristic of the shadow economy is its dualistic

nature - the stable coexistence of the formal and informal sectors within a single economic system. On the one hand, shadowing creates risks for fiscal stability, undermines the tax base, reduces the effectiveness of state regulation, and increases inequality. On the other hand, the informal sector is capable of performing adaptation and stabilization functions, providing employment, supporting entrepreneurial activity and contributing to the preservation of economic dynamics in periods of crisis. Traditionally, this duality has been described as an independent structural property of economic systems (*Lewis, 1954*). However, the neo-institutional perspective allows us to pose the question differently: duality is not an initial condition, but arises as a result of specific institutional gaps - discrepancies between formal rules and real practices, between the costs of legal activity and the availability of informal alternatives.

Functional analysis of the shadow sector enables us to identify several of its economic roles. It can act as a buffer that mitigates the impact of macroeconomic shocks and provides alternative sources of income for the population; act as a channel for redistributing resources between the formal and informal sectors, when part of the informal income returns to the formal economy through consumption and investment; and promote the development of small businesses, providing flexibility and lowering barriers to entry to the market (*De Soto, 2000*). At the same time, shadowing creates significant challenges: it complicates the forecasting of macroeconomic indicators, reduces the effectiveness of fiscal and monetary policy, increases institutional dysfunctions, and undermines trust in state institutions (*Schneider & Enste, 2000*). The growth of informal activity distorts the competitive environment, as shadow-sector enterprises benefit from avoiding regulatory and tax costs, creating unequal conditions of competition.

In the international dimension, the shadow economy goes beyond national jurisdictions and takes on forms that directly deform the structure of trade flows. Regulatory arbitrage as a tool for shadowing the global economy allows economic agents to exploit differences between jurisdictions to minimize tax and regulatory obligations (*Reznikova, Ivashchenko & Dvornyk, 2022a*). Tax engineering in offshore financial centers forms a channel through which significant volumes of capital and trade flows are removed from the control of national fiscal authorities (*Reznikova, Ivashchenko & Dvornyk, 2022b*). These processes create systemic distortions in international trade, distorting the real geography and volumes of commodity and financial flows. Assessing their scale and mechanisms requires an analytical framework that explains not only individual manifestations of shadowing but also its institutional nature and structural stability.

The purpose of the article is to develop a neo-institutional interpretation of the shadowing of international trade, within which the structural duality of economic systems - the stable coexistence of the formal and informal sectors - is interpreted not as an initial characteristic of the economic system, but as analytically deduced from specific institutional configurations. Achieving this goal involves solving the following tasks: systematization of theoretical approaches to the analysis of the shadow economy with the definition of the heuristic potential of the neo-institutional perspective; substantiation of institutional mechanisms of the shadowing of international trade, in particular regulatory arbitrage, trade value manipulation and jurisdictional tax engineering; analysis of the impact of digitalization on the transformation of the channels of the shadowing of cross-border transactions; rethinking structural duality as an institutionally determined phenomenon. The methodological basis of the study is a neo-institutional analysis grounded in the categories of transaction costs, formal and informal institutions, mechanisms for enforcing rules, and incentive structures, supplemented by structural-functional and comparative approaches.

**Literature review.** The theoretical understanding of the shadow economy has gone from the initial identification of the informal sector to the formation of an extensive system of conceptual approaches. An important starting point is the work that recorded the existence of informal employment as a mass phenomenon in developing countries, identifying informal income as a structural component of the urban economy (*Hart, 1973*). This idea marked the beginning of the systematic study of the shadow sector as an object of economic analysis. Descriptive models of the dual structure of developing economies recorded the coexistence of traditional and modern sectors as a stable characteristic of economic systems (*Lewis, 1954; Boeke, 1953*). Although these models originally concerned the agro-industrial structure, their logic was later applied to the analysis of the

shadow economy, where the formal and informal sectors operate in parallel. However, dualistic models posited structural duality without offering a systematic explanation of its institutional causes, thereby limiting their predictive potential.

Quantitative measurement of the shadow economy became the subject of a separate research tradition. Systematization of the conceptual apparatus and classification of forms of shadow activity through the analysis of underground and unregulated economies allowed for the structuring of the subject field of research (Feige, 1990). The methodology of assessing the scale of shadow activity through monetary indicators and the analysis of cash demand offered indirect ways to measure unobserved economic activity (Tanzi, 1999). Generalizing studies expanded the empirical base and revealed systemic patterns related to the level of tax burden, the quality of institutions, and the degree of regulatory complexity (Schneider & Enste, 2000; Medina & Schneider, 2018).

The turning point in the theoretical understanding of the shadow economy is associated with the formation of the neo-institutional direction. The concept of the institutional environment as a set of formal rules, informal restrictions, and mechanisms for their enforcement created the basis for explaining shadowing as a consequence of institutional dysfunctions, rather than cultural backwardness or moral deviation (North, 1990). The theory of transaction costs holds that the choice between formal and informal activities is determined by comparing the costs of legal and shadow forms of governance, including contracting, information search, control, and enforcement of agreements (Williamson, 1985). Linking the scale of informal activity with excessive bureaucracy and high barriers to entry into the formal economy transferred the problem of de-shadowing from the plane of law enforcement to the plane of institutional design (De Soto, 2000).

Studies of the relationship between regulatory quality, discretionary powers of officials, and the extent of shadow activity have found that increasing regulatory complexity systematically increases the share of the informal sector (Johnson, Kaufmann & Zoido-Lobaton, 1998). Analysis of the impact of tax morality and trust in institutions on the behaviour of economic agents has added a cultural-behavioural dimension to the institutional approach, demonstrating that shadowing is determined not only by rational cost accounting, but also by subjective perceptions of the legitimacy of the institutional order (Torgler & Schneider, 2009).

In the context of international trade, the neo-institutional logic of shadowing has been explored across several analytical strands. Analysis of regulatory arbitrage demonstrates how divergences across jurisdictions create systemic incentives to shift operations to less-regulated environments (Reznikova, Ivashchenko & Dvornyk, 2022a). Research on tax engineering in offshore financial centers reveals mechanisms for removing trade and financial flows from fiscal control (Reznikova, Ivashchenko & Dvornyk, 2022b). Analysis of fiscal instruments of regulatory competition has demonstrated that periods of crisis increase incentives for shadowing through increased uncertainty and weakened control (Reznikova, Bulatova, Yatsenko & Ivashchenko, 2022).

A separate analytical strand is research on the impact of digitalization on the transformation of shadow practices. Strategic determinants of competitiveness in the digital age include the ability of states to counter shadowing of cross-border digital transactions (Reznikova, Vovk & Ptashchenko, 2025). Analysis of digital trade in global markets reveals new channels of shadowing related to the platform economy and cross-border digital services (Pryiatelchuk, 2023). Conceptualization of the digital media market highlights the growth of the shadow segment in the digital economy (Pryiatelchuk & Bekh, 2020). Financial technologies in the development of e-commerce create new opportunities for both deshadowing through payment transparency and shadowing through control-circumvention tools (Zablotska, 2025). These processes are considered in the broader context of international business, where shadow practices acquire a cross-border nature (Vergun, 2020). Despite a significant body of research, several gaps remain in the literature. First, the duality of the formal and informal sectors is mostly described as an empirical fact, rather than inferred from institutional reasons, which limits the explanatory potential of the analysis. Second, the relationship between the macroeconomic dimensions of shadowing and the specific institutional mechanisms of shadowing trade flows needs to be systematized. Third, the impact of digitalization on shadow practices in international trade has been analysed mostly descriptively, without integration into a neo-institutional analytical framework. This article aims to fill these gaps by constructing a neo-institutional

interpretation of shadowing international trade, in which the structural duality of economic systems is understood as the result of specific institutional configurations rather than an initial condition.

**Main results of the research.** The legal approach to the shadow economy primarily characterizes it as a set of economic activities that violate the formal rules and norms of economic legislation, including both administrative and criminally punishable forms of activity. In this logic, shadow operations are defined not so much by their economic results as by the legal deviation from established procedures for registration, licensing, income declaration, and transaction recording. Shadowization is interpreted as a violation of the legal regime governing economic activity. The legal perspective distinguishes between illegal activities directly related to the production and circulation of prohibited goods and services, and hidden activities within the framework of permitted types of business (*Feige, 1990*). Such a distinction shows that the shadow economy is not reducible to crime but encompasses numerous practices in the gray area between legality and illegality.

The economic approach defines the shadow economy as a phenomenon that deforms the effectiveness of state policy, distorts the allocation of resources, and distorts the objectivity of macroeconomic indicators (*Schneider & Enste, 2000*). The central point here is not the violation of the norm, but the consequences of concealment: fiscal losses, reduced controllability of the economy, weakening of monetary and budgetary regulatory instruments, and distortion of statistics. Official macro indicators that ignore hidden activity do not describe the entire economy but only its formal part (*Tanzi, 1999*), creating a statistical incompleteness that distorts not only analysis but also policy instruments calibrated to a distorted picture of reality. At the global level, shadowing manifests itself through cross-border transactions in trade, investment, and finance, including illegal capital outflows, violations of tax regimes, the use of complex corporate structures, and jurisdictional arbitrations (*Reznikova, Ivashchenko & Dvornyk, 2022a; Reznikova, Ivashchenko & Dvornyk, 2022b*).

The sociological approach reveals the shadow economy as a shadowing of social and labor relations, with the central objects being working conditions, social risks, and inequality in access to legal protection. Shadow employment is considered as a result of structural imbalances in the labor market and social exclusion (*ILO, 2018; Hart, 1973*). Informal employment is formed as a network of small enterprises and trading practices that provide the population with basic goods and services outside the formal registration regime. Such networks can be technologically primitive but socially sustainable, as they are embedded in everyday practices and compensate for the weaknesses of the formal economy.

The cultural approach shifts attention to the value-normative nature of shadowing. Shadow practices are considered as derivatives of historically formed values, norms of trust, attitudes towards the state, and moral guidelines for economic behaviour (*Torgler & Schneider, 2009*). This approach helps explain why similar economic incentives across countries yield different levels of informality: cultural codes can either enhance or inhibit the propensity toward informal practices. The accounting and statistical approach links the shadow economy to its invisibility in official accounting systems and national accounts, emphasizing measurement issues and international comparisons (*Medina & Schneider, 2018*).

A comparison of the approaches shows that they describe different but interconnected aspects of the shadow economy. The legal approach emphasizes illegality, the economic approach emphasizes systemic consequences, the sociological approach emphasizes the shadowing of labor, the cultural approach emphasizes the value-normative foundations of informality, and the accounting and statistical approach emphasizes the problem of invisibility for official measurements. These perspectives partially overlap, since one and the same practice can be simultaneously a legal deviation, an economic distortion, a social adaptation, and a statistical invisibility. However, each of these approaches primarily describes individual manifestations of shadowing, without offering a single explanatory framework that integrates causes, mechanisms, and structural consequences. It is this integrative function that the neo-institutional approach can perform.

The neo-institutional approach proposes an explanatory model in which shadowing is derived from specific characteristics of the institutional environment rather than from agents' moral deficiencies or societies' cultural features. Central to the notion of institutional compatibility is the idea that when formal rules are not perceived as legitimate or are not economically acceptable,

incentives arise to circumvent them and form alternative practices (*North, 1990*). The choice between formal and informal activities is determined by a comparison of transaction costs: the costs of contracting, information search, negotiations, control, and enforcement of agreements (*Williamson, 1985*). When the institutional environment imposes high costs on legal activity, businesses seek alternative forms of organization, including informal agreements and the transfer of operations to less-regulated jurisdictions. Shadowing in this context is a microeconomic optimization strategy that reduces private costs but creates social losses (*Johnson, Kaufmann & Zoido-Lobaton, 1998*).

The theoretical discourse on shadowing encompasses a number of paradigms, each offering its own explanation of the causes and corresponding policy prescriptions. Classical political economy viewed shadowing through the prism of the rational behaviour of subjects and the lack of control but proceeded on the assumption of the stability of production and the low role of institutions. The Keynesian tradition linked shadowing to macroeconomic imbalances and market failures, treating it as a source of instability. The monetary concept assumes that shadow transactions are settled in cash, and that the growth of shadow activity is reflected in the dynamics of demand for monetary aggregates (*Tanzi, 1999*). The neoliberal concept linked shadowing to excessive fiscal burdens, treating shadow practices as a forced response by businesses to high taxes and complex procedures (*Loayza, 1996*).

The neo-institutional approach integrates the productive elements of these paradigms into a single analytical framework. It acknowledges the role of fiscal burden (the neoliberal argument) and macroeconomic instability (the Keynesian argument), but explains them through the category of institutional dysfunction. High taxes in themselves are not the cause of shadowing - they become so under conditions of weak law enforcement, low trust in the state, and the absence of a tangible connection between tax payment and the quality of public goods. Similarly, macroeconomic instability becomes an incentive for shadowing not automatically, but through the weakening of the institutional framework and increased uncertainty.

It is in international trade that the neo-institutional logic of shadowing manifests itself most clearly. Cross-border transactions, by definition, cross the boundaries of different institutional environments, and the differences between tax regimes, regulatory standards, and enforcement practices of different jurisdictions create systemic opportunities for regulatory arbitrage - the relocation of transactions to environments with lower compliance costs (*Reznikova, Ivashchenko & Dvornyk, 2022a*). This mechanism is fundamentally different from shadowing within a single jurisdiction: it exploits not so much the deficiencies of a single institutional system as the gaps between systems.

Based on neo-institutional analysis, it is appropriate to propose a typology of institutional mechanisms that shadow international trade. The first mechanism is trade misinvoicing: the artificial overpricing or underpricing of goods and services in foreign trade contracts, which is becoming one of the most common channels for illicit capital outflows from developing countries (*GFI, 2021*). The institutional prerequisite for this mechanism is the asymmetry of customs controls between partner countries: weak enforcement in one jurisdiction creates an opportunity for value manipulation in bilateral trade. The second mechanism is jurisdictional tax engineering: the use of offshore financial centers and complex corporate structures to shift profits to jurisdictions with minimal tax obligations (*Reznikova, Ivashchenko & Dvornyk, 2022b*). The institutional basis of this mechanism is competition between jurisdictions for capital, which creates a “race to the bottom” in tax regulation and, in turn, expands the space for shadow operations. Fiscal competition between states becomes particularly intense in times of crisis, when governments, seeking to support economic activity, weaken regulatory control (*Reznikova, Bulatova, Yatsenko & Ivashchenko, 2022*).

The third mechanism is digital channels for circumventing fiscal control: the platform economy, cross-border digital services, and cryptocurrency payments, which create transactions that are difficult to control with traditional fiscal instruments (*Pryiatelchuk, 2023; Zablotska, 2025*). The institutional specificity of this mechanism is that the regulatory regimes of most jurisdictions were designed to control physical commodity flows and banking transactions, whereas digital transactions fall outside these regimes. Competitiveness in the digital age is determined, among other things, by states' ability to create effective regimes for regulating cross-border digital transactions (*Reznikova, Vovk & Ptashchenko, 2025*). The digital media market, where traditional control mechanisms are

ineffective, is becoming a growth zone for shadow practices (*Pryiatelchuk & Bekh, 2020*). International business in these conditions operates in an environment of growing institutional uncertainty, where the line between optimization and shadowing is becoming increasingly blurred (*Vergun, 2020*). The development of digital financial technologies significantly complicates the institutional picture of shadowing. On the one hand, cashless payments increase transparency and narrow the space for cash shadow transactions. On the other hand, cryptocurrencies and decentralized financial platforms create fundamentally new channels of shadow cross-border transactions that do not fit into existing regulatory regimes (*Zablotska, 2025*). The monetary concept of the shadow economy, which linked shadowing to the demand for cash, proves methodologically limited in the digital context: shadow transactions increasingly occur in a cashless, uncontrolled format.

The proposed neo-institutional framework allows us to rethink the very nature of the structural duality of economic systems. Traditionally, dualism - the coexistence of the formal and informal sectors - was described as an initial structural characteristic that only needs to be stated. Models of the dual economy identified two sectors with different levels of productivity and institutional organization (*Lewis, 1954; Boeke, 1953*), but did not systematically examine the institutional conditions that generate and reproduce this duality. The neo-institutional perspective allows us to answer this question. Structural duality arises and is reproduced when transaction costs of legal activity systematically exceed those of informal activity for a significant share of economic agents. This gap can be caused by various institutional factors: excessive bureaucratization and high barriers to entry into the formal economy (*De Soto, 2000*); weak enforcement, which reduces the risks of rule violations (*Johnson, Kaufmann & Zoido-Lobaton, 1998*); low tax morale and lack of trust in institutions (*Torgler & Schneider, 2009*); inconsistency of formal rules with real business conditions (*North, 1990*).

In international trade, structural duality takes on an additional dimension. Formal trade is carried out within the framework of WTO rules, bilateral agreements and national regulatory regimes. Informal or semi-formal trade exploits the gaps between these regimes - differences in customs rates, asymmetry of control, jurisdictional competition. The informal sector of international trade is supported not by cultural inertia or backwardness, but by the rational response of agents to specific institutional configurations. This means that duality is not permanent - it narrows as the transaction costs of legal trade decrease and expands as they increase.

An important consequence of such a rethinking is a change in the perspective of de-shadowing. If duality is an institutional product, then overcoming it requires not so much strengthening repressive mechanisms as a targeted change in the institutional conditions that make legal activity economically more attractive than shadow activity. In international trade, this involves harmonizing regulatory regimes across jurisdictions, reducing customs and administrative barriers, strengthening mechanisms for information exchange between tax authorities, and establishing adequate regulatory frameworks for digital cross-border transactions.

**Conclusions.** The study allows us to formulate the following conclusions. First, the neo-institutional approach has the greatest heuristic potential among the available theoretical frameworks for analysing shadowing in international trade. Unlike the legal approach, which states illegality, the economic approach, which records macroeconomic consequences, and the sociological approach, which describes social manifestations, the neo-institutional perspective offers an explanatory model in which shadowing is derived from specific characteristics of the institutional environment - the level of transaction costs, the quality of law enforcement, the degree of institutional compatibility and the structure of incentives.

Secondly, the shadowing of international trade is implemented through three main institutional mechanisms, each of which has its own institutional prerequisite. Manipulation of trade value relies on the asymmetry of customs control between partner countries. Jurisdictional tax engineering uses jurisdictional competition for capital and the "race to the bottom" in tax regulation. Digital channels for circumventing fiscal controls exploit the inconsistency between existing regulatory regimes and the conditions of the digital economy. This typology allows us to differentiate tools to combat shadowing depending on the specific institutional mechanism.

Third, the digitalization of international trade creates a qualitatively new dimension of

shadowing that does not fit into the existing analytical framework. The platform economy, cryptocurrency payments, and cross-border digital services create channels that are not controlled by traditional fiscal mechanisms designed to monitor physical commodity flows and banking transactions. This necessitates the development of new institutional control instruments that are adequate to the digital nature of cross-border operations.

Fourth, and this is the central theoretical result of the study, the structural duality of economic systems - the stable coexistence of the formal and informal sectors - is not an initial characteristic of the economic system but is analytically derived from specific institutional configurations. Duality arises and is reproduced when the transaction costs of legal activity systematically exceed the costs of informal activity for a significant part of agents. In international trade, this mechanism acquires additional specificity: duality is supported not only by the dysfunctions of individual institutional systems, but also by the gaps between them - jurisdictional differences that generate systemic opportunities for regulatory arbitrage. This rethinking has direct political consequences: effective de-shadowing of international trade requires not strengthening repressive mechanisms, but reducing institutional barriers, harmonizing regulatory regimes and creating conditions under which legal activity becomes economically more attractive than shadow activity.

The scientific novelty of the study lies in: rethinking structural duality as an institutional product, rather than an initial characteristic of economic systems; developing a typology of institutional mechanisms of shadowing international trade on a neo-institutional basis; integrating the digital dimension of shadowing into a neo-institutional analytical framework; substantiation of the neo-institutional approach as a single explanatory framework capable of integrating productive elements of legal, economic, sociological and cultural approaches to the analysis of the shadow economy. Prospects for further research include empirical verification of the proposed typology of institutional mechanisms of shadowing on the material of specific regions and commodity markets; quantitative assessment of the relationship between the level of transaction costs of legal cross-border activity and the scale of the shadow trade segment; analysis of the effectiveness of various institutional instruments for de-shadowing digital cross-border transactions.

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