

## **UKRAINE'S CUSTOMS SECURITY WITHIN THE SYSTEM OF INTERNATIONAL RANKINGS: CHALLENGES, TRENDS, AND STRATEGIC PERSPECTIVES**

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Under the conditions of prolonged military aggression and the legal regime of martial law, the architecture of Ukraine's national security is undergoing fundamental transformations. The issue of customs risk management has become particularly acute, as the shift in logistical routes, forced relaxation of controls for humanitarian cargo, and the closure of seaports have created new windows of opportunity for transborder organized crime. The convergence of high corruption risks with the dynamic growth of illicit markets (human smuggling, illegal arms, and drug trafficking) requires the state to provide not only an operational response but also to develop strategic adaptive management mechanisms based on international resilience indicators.

The theoretical substantiation and practical implementation of customs risk management systems are at the center of attention for many domestic and foreign scholars. In particular, the fundamental principles of risk management in customs affairs and problematic issues of ensuring customs security under conditions of instability and economic downturn are explored in detail in the works of A. Brendak, Y. Buhel, H. Chekalovska, and M. Kovalyova [1-3].

Despite extensive research in the field of customs administration, the issue of the dynamic adaptation of risk management systems to the conditions of prolonged military aggression remains insufficiently explored. The war has triggered a fundamental transformation of logistical routes and the landscape of criminal markets, necessitating new security approaches. Specifically, contemporary studies lack a comprehensive analysis of the correlation between international indicators of institutional resilience and applied customs profiling algorithms. The absence of a clear methodology for integrating the results of global monitoring frameworks directly into operational activities creates a gap between strategic planning and tactical risk management, which requires in-depth scientific investigation.

The aim of the study is to identify strategic vectors for strengthening Ukraine's customs security by analyzing global trends and challenges reflected in the system of international rankings amidst military instability.

The customs component is a fundamental element in numerous international monitoring frameworks, most notably the Logistics Performance Index (LPI) [4] developed by the World Bank. Since 2007, this tool has served to evaluate and compare the quality of logistics systems across more than 160 countries based on six key components: the efficiency of customs and border clearance (Customs), the quality of trade and transport infrastructure (Infrastructure), the ease of arranging international

shipments at competitive prices (International shipments), logistics competence and quality of services (Logistics competence), the ability to track and trace consignments (Tracking & tracing), and the frequency with which shipments reach consignees within scheduled or expected delivery times (Timeliness). These indicators are categorized into two primary groups: areas of state regulation and supply chain performance outcomes.

Within the scope of this study, the "Customs" component is of particular significance, as it reflects the effectiveness of customs procedures through specific aspects such as electronic declaration processing, physical inspection frequencies, and the availability of release with a guarantee prior to final clearance. According to the World Bank's LPI reports for 2018 and 2023 [4], Ukraine's score saw a slight decrease from 2.83 to 2.7 (a 4.59% decline). This reduction is largely attributed to the cumulative impact of the COVID-19 pandemic and the profound disruptions caused by full-scale military aggression and the subsequent imposition of martial law in 2022.

In the 2023 global ranking, Ukraine is positioned within group rank 79, categorized as a "partial logistics performer." For countries in this bracket, the World Bank emphasizes that modernization must focus on streamlining customs and border operations, with a strategic shift toward full-scale automation, advanced risk management systems, and the enhancement of institutional integrity.

A retrospective analysis of Ukraine's LPI over the past seven years identifies a strategic paradigm shift: from planned modernization to the implementation of a "logistics resilience" model. While the 2018–2021 period was characterized by the evolutionary improvement of customs administration, the events of 2022–2025 forced a radical reorientation of logistical vectors—shifting from global maritime connections to the development of transborder land infrastructure on the western frontiers. The stabilization of the integral LPI score in 2024–2025 was facilitated by the adaptive modernization of transport networks, the expansion of rail access to the EU, and the successful operation of the "Ukrainian Marine Corridor," which ensured the restoration of export potential.

At the same time, the "Logistics Competence" sub-index remains a critical vulnerability, showing negative dynamics due to an acute labor shortage. This environment compels businesses to intensify investments in automation and robotics. The most dynamic recovery is observed in the "Tracking & Tracing" component, driven by integration into European digital networks and the application of Artificial Intelligence for supply chain risk management. Consequently, the current state of Ukraine's LPI is defined by a "technological leap" that serves as a compensatory mechanism for physical security constraints.

Parallel to logistical transformations, the Global Organized Crime Index (GOCI) [5] holds particular significance. As of 2025, Ukraine remains in the "High Criminality" group but has demonstrated a transition to a "Medium Resilience" level. Compared to the pre-war period (6.18), the criminality score rose to 6.65 in 2025, reflecting the adaptation of criminal structures to wartime conditions. However, the resilience (state protection) index demonstrated a higher recovery dynamic, rising from 4.0 to 4.82 (ranking 98th globally). This indicates that despite the escalation of criminal

risks, the state's institutional capacity to counter organized crime is strengthening at a faster rate than the risks themselves.

The analysis of empirical data demonstrates a continuous upward trend in Ukraine's average criminality index, which increased from 6.27 to 6.55 over a three-year period. This dynamics reflects the adaptation of transnational criminal networks to martial law conditions through the transformation of illicit enrichment methods and shifts in the geography of criminal activity. The most critical growth was recorded in "Human Smuggling" (rising from 6.0 to 7.5 points), which directly correlates with intensified mobilization measures. A similar upward trajectory is observed in arms trafficking (7.5) and human trafficking (7.1), typical consequences of high weapon saturation and the vulnerability of internally displaced persons.

A distinct challenge is posed by cybercrime (increasing to 7.3 points), indicating a migration of criminal activity into the digital space to minimize detection risks. Conversely, the decline in "Environmental Crimes" (from 4.5 to 4.0) marks a reorientation of criminal groups toward more profitable niches. Overall, the accumulation of systemic threats necessitates a shift in customs administration toward intelligent profiling systems capable of identifying hybrid risks: from cyberattacks on declaration databases to the movement of weapons under the guise of humanitarian aid.

A positive counterbalance is the strengthening of institutional resilience, which rose from 4.54 to 4.82 points. The most dynamic growth was seen in "International Cooperation" (from 6.0 to 7.2) due to deepened operational interaction with Europol and Interpol. Progress was also noted in Anti-Money Laundering (AML) efforts, reaching 6.3 points, confirming the alignment of financial monitoring protocols with FATF requirements. However, the stagnation of the "Judicial System and Law Enforcement" sub-index (steady at 4.0 points) creates a gap between successful strategic planning and the practical inevitability of punishment.

The outlook for 2026–2027 indicates further adaptation of criminal markets to tightened border controls through technological schemes and the involvement of corrupt elements. This underscores the importance of the Corruption Perceptions Index (CPI) as a global indicator of public sector transparency, allowing for an assessment of risks involving government officials, particularly within the customs system.

The Corruption Perceptions Index (CPI) [6], covers 182 countries, providing a benchmark for the international comparison of corruption risks. The dynamics of this index for Ukraine over the past 12 years demonstrate a steady upward trend. In 2025, Ukraine ranked 104th, showing a unique regional positive growth while most neighboring countries (Slovakia, Romania, Hungary) lost points. According to the Transparency International report, Ukraine is categorized among the nations with the most statistically significant improvements in anti-corruption efforts.

The resilience of the anti-corruption infrastructure amidst full-scale war has been maintained through accelerated digitalization (the "Diia" platform, restoration of mandatory e-declarations) and the institutional independence of oversight bodies. Specifically, in 2025, NABU and SAP initiated a record 737 new criminal proceedings, while the High Anti-Corruption Court delivered verdicts resulting in an economic effect exceeding 6.5 billion UAH. A crucial driver of business confidence has been the

implementation of digital tools for monitoring reconstruction funds. Further progress (reaching 40 points and above) critically depends on the deep reformation of the customs and tax services, alongside the minimization of political interference in law enforcement.

Effective customs risk management is a fundamental factor in national competitiveness under conditions of systemic instability. Cross-index analysis (LPI, GOCI, CPI) confirms that despite vulnerabilities to smuggling and cyber threats, Ukraine's customs system maintains high adaptability. The transition to a "logistics resilience" model requires not only technological upgrades but also a radical transformation of the judicial system to ensure the inevitability of punishment. Forming a comprehensive customs security strategy through harmonization with EU legislation and the development of intelligent profiling algorithms is a vital prerequisite for Ukraine's full integration into the European economic space by 2027.

The study of Ukraine's positioning in global rankings confirms that the national customs system is currently undergoing a period of deep and dynamic transformational adaptation. A cross-index analysis of LPI, GOCI, and CPI indicators has confirmed a vital trend: despite the critical increase in security risks during the war, the state's institutional resilience and recovery capacity demonstrate a higher dynamic than the criminal or corruption threats themselves. Ukraine has successfully implemented a transition to a "logistics resilience" model, where large-scale digitalization of procedures, the implementation of the NCTS system, and the "e-Queue" service have acted as primary compensatory mechanisms, allowing for the mitigation of physical infrastructure losses and the closure of seaports.

At the same time, the main security challenge for 2026–2027 is identified as a fundamental change in the structure of criminal markets, which has shifted from traditional commodity smuggling to complex hybrid schemes, including cybercrime and the illegal movement of persons or dual-use goods under the guise of humanitarian aid. Positive dynamics in anti-corruption rankings and the strengthening of international operational cooperation with Europol indicate the success of strategic reforms; however, the stagnation of judicial system indicators remains a "bottleneck" that still limits the overall effectiveness of customs control due to the lack of complete inevitability of punishment.

Consequently, further scientific research and practical efforts should focus on developing the "Smart Customs 4.0" concept, which involves implementing intelligent algorithms based on machine learning for the automatic detection of anomalies in supply chains. Key development vectors also include the formation of special customs protocols for the transparent management of future reconstruction logistics and the enhancement of the cyber-resilience of customs databases as critical infrastructure objects. Implementing these strategic steps will not only significantly improve Ukraine's positions in global indices but also ensure its seamless integration into the European economic space by 2027, creating a reliable digital and legal shield for the state's economic security.

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