

RISK ASSESSMENT OF ECONOMIC ORGANISED CRIME IN UKRAINE

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Abstract. *The subject* of the study is the methodological foundations and applied approaches to assessing the impact of organised crime on economic relations in the country. *Methodology.* The study uses two key approaches to the criminological analysis of organised crime: statistical (based on state statistics) and sociological (risk assessment based on expert surveys). *The purpose of the article* is to compare analytical approaches and results of data analysis on the activities of organised crime in the economic sphere in Ukraine. The activity of organised crime in the economic sphere in Ukraine has been analysed on the basis of state statistics and sociological surveys conducted in recent years under various research projects. With a focus on the comparative interest of these two criminological approaches, the authors highlights the problem of identifying manifestations of organised economic crime not as individual non-systemic cases, but as a criminal phenomenon of a systemic nature which permeates various areas of economic activity. At the same time, it was found that the state statistics do not objectively reflect the problems of organised crime in the country, and that they are levelling the real state. Among the various sociological methods of criminological analysis, the authors focused on the risk-oriented approach to the assessment of crime, considering the risk of the spread of organised crime in the economic sphere on the basis of an expert assessment of the probability and consequences of the spread of these threats. This approach and its results point to critical gaps in criminological research based on state statistics and suggest promising approaches for future research. *Conclusion.* The risk-oriented approach points to systemic manifestations of the phenomenon of organised crime and the high risk of organised crime groups in the economy of Ukraine. Using a unique empirical base formed by research projects, significant threats to the country's economy and high-risk threats in the form of various manifestations of organised crime were identified: according to law enforcement agencies – 62.30%; in the system of hybrid threats – 41.38%-44.74%; in the field of forestry – 55.67%; in the field of fiscal security, in the section of individual branches of the economy, the most significant level of risk is in the range of 60-70%.

Keywords: organised crime, economic organised crime, criminological analysis, statistical analysis, sociological methods, risk assessment, risk-oriented approach.

JEL Classification: B22, E22, E24, J24, O15

1. Introduction

Organised crime is a major problem for all countries. It is not only a national law enforcement problem that undermines national security, but also has the potential to affect other important areas of human security, whether social, political, economic or environmental (UNODC/UNICRI, 2005). The spread of economic organised crime is a major destructive factor in the socio-economic development of societies (UNICRI,

2016). Organised crime has a significant economic dimension: according to preliminary estimates by Schneider (2010), the global income from criminal activities is 790.0 billion USD. Both crime in general and organised crime negatively affect the level of economic activity and the growth process (Powell et al., 2010). In particular, Pinotti (2015), analysing indicators of economic development in southern Italy, shows losses of about 16% of GDP due to organised

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economic crime. At the same time, in the context of the impact of organised crime on the economy, it is important to point out that the informal sector accounts for 10-20% of GDP in developed countries and about 60% in developing countries (Webb et al., 2013).

For this reason, law enforcement agencies around the world are making great efforts, resulting in significant successes in the prosecution of organised crime groups. At one time, Stier and Richards (1986) noted that in the early stages, the goal of law enforcement was to eliminate organised crime by removing every person from the list of most dangerous criminals. However, slowly but surely, practitioners and theorists realised that organised crime has a regenerative nature and therefore law enforcement agencies began to focus their efforts on the sources of its existence and its effects.

To deepen the understanding of the above, it is important to understand the implementation and development of the long term component of intelligence, namely the strategic vision regarding organised crime. To achieve significant results, investigations must be part of an overall strategy that is not only aimed at punishing individuals and individual enterprises, but is based on a sufficient understanding of the problem of organised crime (Goldstock, 1986). That is, modern approaches to criminological analysis should focus not on individual participants to be punished for specific offences, but on broader aspects of criminal behaviour and the subculture of organised crime.

The current realities for Ukrainian society are primarily associated with external aggression and encroachment on state sovereignty. At the same time, the war against Ukraine is accompanied by a number of informational, economic, political and criminal measures, which are commonly perceived as hybrid threats that destroy society, government, economic relations, etc. When studying hybrid threats in the civil security sector in Ukraine, it has been demonstrated (Kovalchuk et al., 2019) that the most significant risks of the spread of hybrid threats relate, inter alia, to the following: activities of illegal armed groups – 56%; illegal trafficking in weapons, ammunition and explosives – 54%; emergence of new criminal schemes in the economic sphere – 42%; activities of criminal groups aimed at aggravating the criminal situation and destabilising the internal socio-political situation in Ukraine – 41%; export of representatives of the criminal world to the territory of Ukraine by the aggressor – 41%. It is important to have a sufficiently objective understanding of the determinants of crime, especially in its organised forms, in order to adequately counteract crime in times of war and in view of its hybrid forms.

At the same time, these trends are not fully reflected in official state statistics on crimes committed, pre-

trial investigations conducted and court decisions on the punishment of offenders. This is especially true of latent crime, especially its organised forms. Such is the situation in Ukraine, where, traditionally for the countries of the post-Soviet space, criminological analysis is based mainly on the use of official crime statistics, which include data collected by the police and judicial authorities (Verbenskyi et al., 2021; Verbenskyi et al., 2022).

For this reason, the authors identify the problems of identifying organised crime in the system of economic relations in Ukraine as a key subject of research, comparing the results of traditional statistical analysis and modern risk-oriented sociological studies of crime. Robert Reiner (2016) said: "It is only by examining the multiple and varied perspectives on crime that we can begin to understand and respond appropriately to this social phenomenon".

2. Methodological Principles of Criminological Analysis Based on Statistical Data and Risk-Oriented Sociological Research

2.1. Criminological analysis based on statistical data

The crime statistics approach uses data from official crime statistics, which includes data collected by the police, the judiciary and other official sources. By analysing this data, criminologists study crime in terms of various indicators, such as the types of crimes, their frequency, where they are committed and other aspects. This approach makes it possible to identify trends and changes in crime levels over time, to determine geographical characteristics, to identify "hotspots" of crime, and to conduct comparative analysis between different regions or groups of the population. Many scientists have made their contribution to the development of criminology based on the analysis of statistical data, among whom it is worth highlighting: Adolphe Quetelet (1832) introduced the concept of "social statistics" and conducted many studies related to the dependence of crime on social factors such as age, gender, occupation, education, etc.; Steven D. Levitt, Stephen J. Dubner (2005) studied the relationships between various phenomena in society, including criminal activity, using statistical data analysis; Lawrence W. Sherman (1997, 2002) is the founder of evidence-based policing. Sherman (1997, 2002) is the founder of evidence-based policing; David Weisburd and Anthony Braga are known for their research on the geography of crime and the theory of "hotspots" (Weisburd and Yang, 2012; Braga and Weisburd, 2010); David Farrington et al. (1986, 2018), recognised authorities in criminology who have conducted extensive research on crime and focused on effective

crime prevention strategies; David Wilson (2007), a renowned expert on serial killers and criminal behaviour; Susanne Karstedt (2002), known for her work on the relationship between emotions and criminal justice; Steve Tombs, David Whyte (2015), interested in the prevalence, nature and regulation of corporate crime; Stephen Farrall (2022), who has made significant contributions to criminological knowledge on why people stop offending and the impact of probation services on the desistance process.

This list of famous scientists who have made a great contribution to the development of criminology is much longer. At the same time, it should be noted that the Ukrainian school of criminology also had its own development and much was done to establish a national school of criminology: Petro Mykhaylenko (Mykhaylenko and Helfand, 1964) the founder of the new Ukrainian criminology during the Soviet regime; A. P. Zakalyuk (1975, 2007) was engaged in applied criminological research, problems of criminological expertise, democratisation of the law enforcement system of Ukraine, issues of crime prevention (Zakalyuk, 1975; Zakalyuk et al., 2007); A. A. Kovalkin (1985) was engaged in applied criminological research; I. M. Danshin (1988) dealt with theoretical problems of criminology; O. M. Kostenko (2008) formulated the "principle of social naturalism" as a methodological principle for the study of social phenomena; O. G. Kulyk is a well-known researcher in various fields of criminology (Verbenskyi et al., 2021; Verbenskyi et al., 2022), and others.

These are just a few examples of scholars from the Ukrainian school who have been actively working on crime analysis based on criminal statistics. There are many other researchers who have also contributed to this field.

However, it is necessary to point out that there are significant differences between the criminological schools of the post-Soviet countries (including Ukraine) and the Western countries, which are determined by the context of criminology development in these regions and the influence of various historical, cultural, political and socio-economic factors.

One of the main differences lies in the approaches to the science of criminology itself. In general, in the countries of the Soviet era, criminology was strongly ideological in the sense of the communist regime system. Ideology and politics influenced the study of crime and the identification of the causes and consequences of criminal behaviour. In this context, approaches to criminology could be aimed at solving political problems and strengthening power. At the same time, official statistics could be distorted by the attribution or concealment of crimes, unreliable police reporting, changes in data collection methodology, etc. They also failed to take account of latent criminality

and did not provide detailed information on the causes or context of crime. At present, during the years of independence, the situation has changed dramatically, the real characteristics and tendencies of crime in the transitional socio-economic conditions have become the interest of researchers, who have mainly focused on the statistical analysis of crime related to corruption, organised crime, economic transformations, etc.

In the Western world, research in the field of criminology is usually more independent of political influences. Criminological research is mainly aimed at understanding the nature of crime, identifying its causes and developing strategies to prevent it. In Western countries, more attention is paid to human rights, justice and rehabilitation of criminals.

2.2. Criminological analysis based on risk-oriented sociological research

Modern law enforcement policy in developed security systems is based mainly on the principles of acquiring adequate knowledge about systemic criminal phenomena, the criminal environment and developing appropriate strategies. This requires a wider application of criminological tools, not limited to statistical analysis of police data and court decisions. Latent crime, especially economic crime, as well as its organised manifestations, require the search for new forms of crime analysis, and the appropriate response is the full application of sociological research.

Historically, criminology in general has developed in close symbiosis with sociology in particular: Edwin Sutherland (1924, 1949) made a major contribution to the study of corporate and economic crime, arguing that crime occurs not only among the socially disadvantaged but also among elite groups and emphasising the importance of social context in assessing crime; Émile Durkheim (1974) studied the social causes of crime and developed the concept of "anomia" as a state of social disorganisation that can lead to crime; Robert Merton (1949, 1973) developed the theory of anomie and explored social inequalities, stress, and unmet social expectations that lead to crime; Howard Becker (1963) studied the influence of social tags and labels on the formation of criminal identity and society's response to criminal behaviour; William J. Chambliss (Chambliss and Seidman 1971; Chambliss, 2018) studied crime and social control mechanisms, focusing on the study of power structure, social inequalities and the role of social institutions in the formation of crime; Richard Cloward and Lloyd Ohlin (1960) worked on differential opportunity theory and studied the influence of social opportunities and criminal structures, focusing on the role of inequality in access to legal pathways to success.

Obviously, these are just a few examples of prominent Western scholars who have used sociological research to study crime. There are many other researchers who have also made important contributions to the field and helped to broaden the authors' understanding of crime, particularly organised crime, and its social causes. Sociology offers many opportunities to understand the social and structural factors that influence organised crime and to develop strategies for its management and prevention. Various aspects of organised crime are studied: the structure and organisation of criminal groups (hierarchy, role specialisation, communication links, decision-making processes, etc.); the social conditions in which organised crime spreads, social factors that stimulate organised crime; cultural aspects that contribute to the development of organised crime; networks and social links between criminal groups; the influence of institutional factors on the operation of organised crime, mechanisms of social control; the global aspect of organised crime, etc.

In this context, it is important to pay particular attention to sociological studies of organised crime in the economy: James Coleman (1990) studied the social aspects of economic activities, explored social structures and interactions in the business environment, including the analysis of organised crime in the economy; Patricia Adler and Peter Adler (1994) explored social issues related to economics and business, studied the phenomenon of organised crime in the economy; Michael Tonry and Peter (2020); Mark Button, Branislav Hock and David Shepherd (2022) launched the study of economic crime as a scientific sub-discipline of criminology; Niklas Luhmann (1984) used a systematic approach to the study of organised crime in the economy, analysed the interaction between social systems, including between criminal organisations and economic structures. In general, the study of economic organised crime, based on sociological approaches, uses various methods: ethnographic studies, social network analysis, comparative analysis, criminological models, case studies, etc., the combination of which allows a more complete understanding of the nature, mechanisms and impact of organised crime on the economy and society.

In the 1980s, a new sociological theory of modern society appeared by Ulrich Beck (1992), according to which, in the last third of the 20th century, human civilisation entered a new phase of its development – the phase of risk. The post-industrial society is a risk society, characterised first of all by the distribution of threats of various origins and the risks caused by them, by the appearance of more and more negative factors, which accumulate and are unevenly distributed among the members of society. It is the

distribution of risks that becomes the main component of civilisational security.

The general scientific foundations of the concept of risk have been developed in sociology, economics, applied mathematics, psychology, deviantology, etc. The construct of risk, which is usually quite present in public debates, is a complex combination of defining the content of a certain threat and estimating its magnitude, probability and the absolute or relative value of the occurrence or non-occurrence of a given event. In any case, risk is considered a permanent attribute of management activity.

Today's realities dictate the need for a new level of thinking in law enforcement, which includes an appropriate perception of risk and its use as an integral part of future analysis. Risk should be considered as a special method of perception and management of law enforcement activities, which acts as a set of decision-making methods. Risk management of the implementation of the state law enforcement policy in the era of globalisation should be based, first of all, on the fact that each of the subjects of the law enforcement process in the formation and implementation of the state law enforcement policy should resort to forecasting the future conditions of its implementation and the consequences of its implementation (Law in the modern political life of Ukraine, 2020). Examples of such approaches are the methodologies of Europol SOCTA (Europol, 2021), IOCTA (Europol, 2023) and risk-oriented law enforcement strategies based on expert surveys and the application of relevant sociological and statistical methods of analysis.

For example, although the SOCTA (Serious and Organised Crime Threat Assessment) methodology (Europol, 2021) is based on the analysis of various sources of information, including crime statistics, intelligence data, academic studies, law enforcement reports and other sources, it can still be included in the arsenal of methods for researching economic organised crime based on sociological approaches because the core of its empirical base is formed by expert opinion. It provides an opportunity to analyse organised crime as a system, to identify links between criminal groups, to understand their structure and functioning, and to determine their impact on society and the economy. SOCTA can be seen as a methodology that combines different sociological and criminological approaches to the study of economic organised crime. It provides a structured approach to assessing and analysing the phenomenon, helping to identify new trends and to understand the complex nature of organised crime.

Risk assessment can be a useful criminological tool to help identify, assess and manage the risks associated with organised crime in the economy. At the micro level, risk assessment examines specific cases such

as fraud, drug trafficking, etc. At the systemic level, risk assessment focuses on examining the general structural factors that contribute to economic organised crime, including the legal framework, control and supervision systems, financial markets, the banking system and other elements relevant to the economy. This makes it possible to identify systemic risks and problems that create conditions for economic organised crime and, in particular, to develop strategies for their prevention and management: Richard A. Berk (2009, 2017, 2018, 2021) specialises in statistical analysis and crime forecasting; Michael Levi (2015, 2016, 2017) and others (Levi and al., 2017) have an international reputation for excellence in both basic and policy-oriented research on money laundering, corruption, cybercrime, fraud, transnational organised crime and economic crime, and have explored the issue of risk assessment in the context of combating organised crime in the economy; Peter Reuter (Reuter, 1984; Reuter and Truman, 2004; Boyum and Reuter, 2005) studied organised crime in the context of the economy, analysing the risks and economic motivations of criminal activity in the economy, including drug trafficking, international terrorism and smuggling; Lawrence Sherman et al. (Sherman et al., 1997; Welsh et al., 2001) used the Probability Impact Matrix to assess the risks of organised crime and set priorities in the implementation of countermeasure strategies; Terence Halliday et al. (2014), Co-Director, Center on Law and Globalization, Research Professor, American Bar Foundation, has contributed significantly to efforts to improve the standards and methodology for AML/CFT assessment. These scholars represent only a fraction of those who have used risk assessment in the study of economic organised crime. Their research and contributions contribute to the development of the theory and practice of combating economic organised crime and influence the development of policies and strategies to combat this phenomenon.

The use of risk assessment helps to understand the nature and extent of economic organised crime, to identify the most risky areas and factors, and to

develop preventive measures to reduce them. This approach makes it possible to focus on forecasting and risk management, helps to improve strategies for combating economic organised crime and provides more effective protection for society and the economy.

The international community, based on the generalisation of its own experience, seeks to standardise general algorithms of activity based on risk analysis and assessment. In particular, international risk management standards ISO Guide 73:2009 Risk Management – Vocabulary; ISO/IEC 31000:2009 Risk Management – Principles and Guidelines; ISO/IEC 31010:2009 Risk Management – Risk Assessment Techniques; ISO 31000:2018 Risk Management – Guidelines (replaces the 2009 edition). ISO 31000 (ISO) has been adopted as a national standard by more than 50 national standards bodies, covering more than 70% of the world's population. It has also been adopted by some UN agencies and national government organisations as a basis for developing their own risk-based standards and methodologies.

Although the general methodological approach is based on the recommendations of ISO 31000, the implementation of the defined algorithm is the responsibility of the author. This applies both to the implemented system of indicators, data structure, evaluation gradation and definition of the general expert population, as well as approaches to the implementation of specific methods and tools for data processing, analysis and interpretation of results.

The main stages included: development of a questionnaire; development of tools for further strategic analysis; development of an expert sample; conducting a survey in an expert environment; data cleaning; design of the final data array; construction of analytical matrices; analytical processing of data; preparation of an analytical report.

The introduced methodology and tools are set out in a clear scheme that implements an algorithm for analysing threats and risks, assessing and forecasting them (Figure 1).

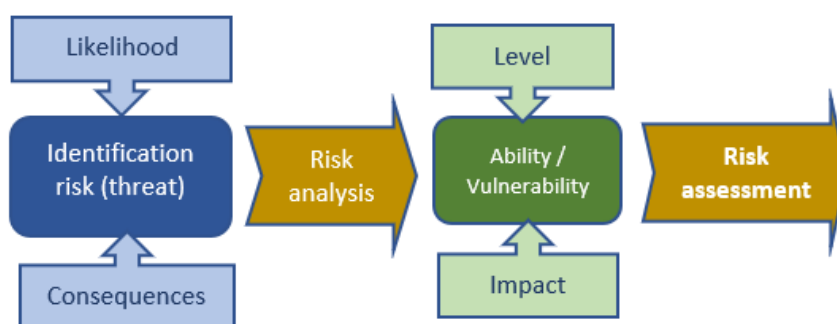


Figure 1. Risk assessment algorithm

The implemented methodology ensured the solution of the following analytical tasks (in IBM SPSS Statistics):

- Identification, assessment and ranking of threats (matrix and variance analysis);
- threat assessment (integration of two assessments of "likelihood" and "consequences");
- assessment of the vulnerability/capacity of the system (actors) (integration of two assessments "level" and "impact");
- assessing the risks of threats spreading (comparing the threat level with the system vulnerability level, forming a forecast model based on regression analysis).

In research projects, the authors used identical methodological principles (Kovalchuk et al., 2019; Korystin, et al., 2021b): risk assessment scale in percentage from "0" to "100"; experimentally, compared with the results of matrix analysis, the limit levels of risks were determined (more than 60% – (the most significant level) red visualisation colour, 50%-60% – (significant level) orange visualisation colour; 40%-50% – yellow visualisation colour and less than 40% – green visualisation colour).

3. Justification of the Empirical Data Used for the Analysis

3.1. Statistical data from state registers

There are differences in the use of data for crime analysis between different criminological approaches and methodologies. Typically, multiple sources of data are used to analyse crime, including police and other law enforcement reports, court decisions, social surveys, expert, citizen and victim reports, and data from other official sources, to provide a broader picture of crime and its causes.

In Ukraine, statistical data on criminal offences in the country, defined in official sources and professional publications as "state statistics", are obtained from state statistical reports (Verbenskyi et al., 2021), in particular the Unified Report on Criminal Offences (Form 1); Unified Report on Persons Who Have Committed Criminal Offences (Form 2); Departmental statistical reports of the National Police of Ukraine – Report on the results of work and compliance with the law by police bodies in the registration and consideration of applications and reports on criminal offences committed and other events (form 1 – Unified Register) and the annual compilation of statistical tables on the state of criminal offences in the regions of the country "State and structure of criminal offences in Ukraine", prepared by the Office of Organisational Support of the Unified Register of Pretrial Investigations and Information and Analytical Work of the Prosecutor General's Office of Ukraine.

Another variant, which essentially does not go beyond the state statistics (Karchevskiy, 2023) – in addition to the data contained in the reports of the General Prosecutor's Office of Ukraine, the data of the State Judicial Administration are also included: Report on persons brought to criminal responsibility and types of criminal punishment (Form 6); Report on the list of convicted persons (Form 7).

However, the conclusions about crime as a phenomenon are not always sufficiently reflected in state statistical reporting, which is both objectively understandable when it comes to latent types of crime and subjectively determined by circumstances. Mykola Karchevskiy (Karchevskiy et al., 2021) notes that the available statistical information does not allow drawing reasonable conclusions about the state of criminal law regulation, it is not possible to integrate data on the accounting of offences and court proceedings, their analysis is limited in effectiveness, and the detailing of the received data is complicated by a systemic factor – the imperfection of the organisation of criminal statistics.

At the same time, this problem is also pointed out by modern research, in particular by scientists from the UK: based on the analysis of the University of Portsmouth (University of Portsmouth, 2017), it is concluded that (M. Button, B. Hock, D. Shepherd et al., 2023) "...official statistics represent only a fraction of the amount of fraud committed in the UK, which in turn means that the unmeasured 'dark fraud' can be easily and conveniently ignored for administrative and political purposes".

There is currently a significant gap between statistics and reality, and the potential for statistical data to be manipulated for political gain (M. Button, B. Hock, D. Shepherd et al., 2023), resulting in a misleading public opinion that mitigates against crime levels. Farrell et al. (2011) and Knepper (2015) are concerned about this situation. Furthermore, such an optimistic view justifies inaction, which is dangerous (Shepherd and Button, 2018).

That is why Knepper insisted (2015): "Rather than testing criminal justice, ... we need better theoretical models about their different effects on crime trends. We need better theories about the scale of crime drop so that we can match the analysis to the problem, not the data set".

3.2. Survey data of the expert background

At the same time, there is a tendency and growing interest in Ukraine to expand the use of various data sources for crime analysis and to obtain a more objective picture of crime. New data sources are emerging, such as public registers, electronic

databases, video surveillance systems, etc. This makes it possible to increase the volume and quality of data used for criminological analysis.

Now, law enforcement agencies are purposefully implementing a risk-oriented approach in their activities, thereby providing analytical capabilities for objective analysis of crime. In particular, recently the "On the Comprehensive Strategic Plan for Reforming Law Enforcement Agencies as Part of the Security and Defence Sector of Ukraine for 2023–2027" was approved by the Decree of the President of Ukraine (The Decree of the President of Ukraine "On the Comprehensive Strategic Plan for Reforming Law Enforcement Agencies as Part of the Security and Defence Sector of Ukraine for 2023–2027" No. 273/2023, 2023), in which one of the directions is defined as "Ensuring the further development of law enforcement systems based on the application of risk-oriented approaches, information and analytical activities, strategic management and forecasting". And in the tasks of the newly created law enforcement agency, the Law of Ukraine "On the Bureau of Economic Security of Ukraine" (The Law of Ukraine "On the Bureau of Economic Security of Ukraine" No. 1150-IX, 2021) notes the need to "identify risk zones in the economy, assess risks and threats to the economic security of the state, develop ways to minimise and eliminate them".

In order to cover the issues raised in this paper more fully, the authors use data on risk assessment of economic and organised crime in the country, obtained, in particular, from various research projects:

- Methodological foundations hybrid threats in the civil security sector in Ukraine (Kovalchuk et al., 2019);
- Strategic analysis in the field of fiscal security in Ukraine (Korystin et al., 2021a);

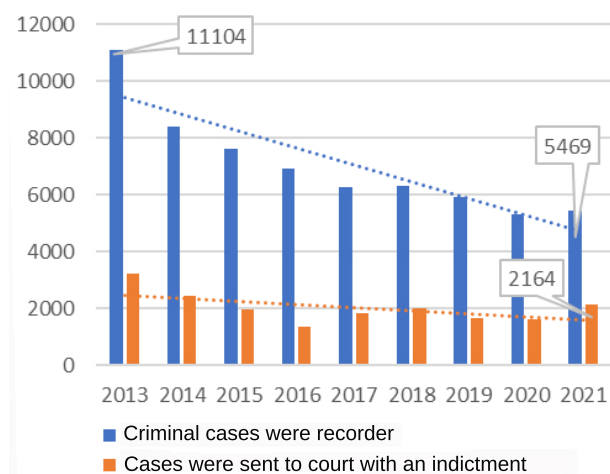


Figure 2. Crimes in the field of economy for the period 2013–2021

- Strategic analysis in the direction of: criminal justice and law enforcement agencies: threats, risks, vulnerabilities (Korystin et al., 2021b);
- Strategic analysis in the field of forestry: threats, risks, vulnerabilities (Korystin and Svyrydiuk, 2023).

Thus, the empirical base is formed on the basis of the survey of experts in the specified fields and the definition of expert opinion. At the same time, it was important to ensure the purity and reliability of the data, so logical fallacy filters were used at the survey stage (Kovalchuk et al., 2019), and cluster analysis was additionally used during data processing (Korystin et al., 2021c). Data cleaning ensured the quality and reliability of the information provided by the experts. This improved the reliability and accuracy of the results of the risk assessment, allowing to obtain a more objective and accurate picture of the risks of organised crime in the economy.

4. Research on the Activities of Organised Crime in the Ukrainian Economy

According to state statistics (Karchevskiy, 2023) for the period 2013–2021 under Chapter 7 "Crimes in the sphere of economy" of the Criminal Code of Ukraine (CCU), the trend of decreasing detected crimes is followed (from 11,000 to 5,500) (Figure 2). The same trend can be observed in the number of criminal cases sent to court with an indictment (but only 40% of the registered cases).

At the same time, the downward trend also applies to the number of people convicted of crimes (Figure 3), of whom only a small proportion were convicted with the qualification of committing a crime as part of an organised group, in particular, in 2021, out of a total of 461 people, only 35 committed a crime as part of an organised group.

In addition, analysing the results of criminal prosecution for the crime under Article 191

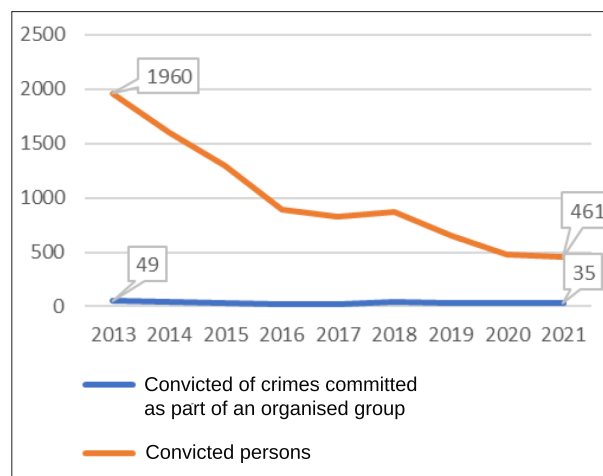


Figure 3. Convicted persons

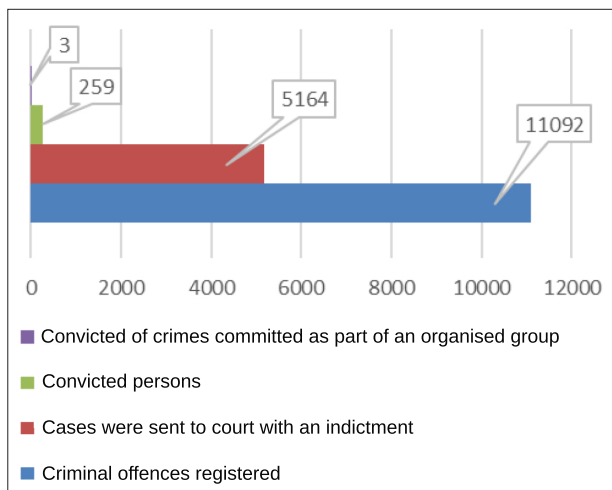


Figure 4. Article 191. Appropriation, waste of property or taking possession of it by abuse of official position (2021)

"Misappropriation, embezzlement or seizure of property through abuse of official position" of the Criminal Code (Figure 4), which is one of the key measures in the fight against corruption and misappropriation of public funds, 11,092 crimes were detected in 2021, for which 259 people were convicted. Only three people were charged with committing a crime as part of an organised group.

It is important to note that the quality and organisation of law enforcement activities and pre-trial investigations also play a significant role in this matter. At this stage of the analysis of state statistics data, it is worth considering whether economic crime in Ukraine is characterised by organised forms.

The above research projects have set out to answer these questions and to carry out appropriate tasks for risk assessment experts.

According to the risk assessment of the criminal justice system and law enforcement in Ukraine (Korystin et al., 2021b), when assessing threats by

national security sphere (Table 1), economic security was ranked 3rd among others and is characterised by a significant level of risk (59.47%). Only state security (63.84%) (data obtained a year before the start of large-scale aggression on the territory of Ukraine) and cybersecurity (59.60%) are characterised by a higher level of risk.

At the same time, the risk of threats spreading (Table 2) is associated with organised crime at 62.30%, which is second only to corruption (66.38%) and money laundering (63.33%).

Thus, the above data provide sufficient grounds to perceive the problem of organised crime in the Ukrainian economy as an extremely important threat with a high risk of spread.

According to the risk assessment of the spread of hybrid threats in the civil security system (Kovalchuk et al., 2019), when assessing the threats associated with the spread of crime (Table 3), the highest and significant risk is characterised by: financing of terrorism (46,45%), emergence of new criminal schemes in the economic sphere (44,74%), activities of criminal groups in deepening the criminogenic state in Ukraine (41,38%), export to the territory of Ukraine by aggressor representatives of the criminal world (40,52%).

Thus, the assessment of the risks of the spread of hybrid threats to Ukraine additionally emphasises the problems of organised crime in the country's economy. The hybrid war that Ukraine has been in since 2014 brings with it a number of threats of a criminal nature, which negatively affects economic relations and the criminogenic situation in the state.

Some research projects were concerned with strategic analysis of the direction of the industry. And despite the wide range of issues, risks of a criminological nature were identified for assessment each time.

Currently, according to the assessment of risks in the field of forestry in Ukraine (Korystin and

Table 1

Risk assessment by security area

Threats by area (risk assessment, %):	Average	State Bureau of Investigation	National Anti-Corruption Bureau of Ukraine	National Police of Ukraine	State Border Guard Service of Ukraine
Rights and freedoms of citizens	54,52	51.72	45.13	47.59	55.49
Public security	52,03	47.61	46.32	47.06	53.74
Civil protection	48,82	42.53	33.19	45.43	49.32
Road and transport traffic	55,08	48.11	50.62	49.99	53.57
Economic security	59,47	59.59	66.44	53.23	60.78
Information security	58,11	57.01	61.01	55.38	62.23
Cyber security	59,60	56.41	65.19	56.45	61.19
State security	63,84	66.82	73.79	57.47	68.51
Energy security	55,85	56.35	68.65	51.47	57.74
Ecological security	57,98	60.38	50.62	52.71	58.85
Food safety	47,67	44.35	30.62	42.90	47.37
Border guards	58,71	55.61	56.41	52.98	60.59

Table 2

Assessment of the risks of spreading threats related to certain criminal phenomena

Threats related to proliferation: (risk assessment, %):	Average	State Bureau of Investigation	National Anti-Corruption Bureau of Ukraine	National Police of Ukraine	State Border Guard Service of Ukraine
Terrorist financing	59,33	57.97	65.79	55.54	64.14
Corruption	66,38	67.20	82.80	59.78	68.93
Money laundering	63,33	60.60	58.44	56.15	66.15
Organised crime	62,30	62.55	63.82	57.03	66.82
Raiding	54,01	53.42	39.64	50.84	54.47
Smuggling	59,24	58.67	54.56	52.46	61.86

Table 3

Hybrid threats related to the spread of crime

Risk assessment, %	Average	National Police of Ukraine	State Border Guard Service of Ukraine	State Customs Service of Ukraine
Activities of criminal groups aimed at deepening the crime situation in Ukraine	41,38	40,73	31,87	44,35
The aggressor's importation of representatives of the criminal world into the territory of Ukraine	40,52	40,92	30,99	45,00
Emergence of new criminal schemes in the economic sphere	44,74	42,43	39,85	54,54
The spread of cross-border organised crime	35,98	34,35	25,85	42,94
The aggressor-initiated spread of raiding-related crimes	32,08	30,72	21,38	38,83
The aggressor-initiated spread of money laundering crimes in favour of the separatists	38,00	37,23	30,39	48,31
Terrorist financing	46,45	45,46	39,70	54,58

Svyrydiuk, 2023), risks of a criminal nature have been identified (Table 4), and their assessment directly indicates the existence of high-level risks (red and orange sectors), in particular: Illegal deforestation (61.78%); easy access to shadow income legalisation schemes (61.27%); targeted activities of organised crime in the forestry sector (55.67%); and the spread of cross-border organised crime related to illegal export of forest products (50.06%).

It is important to point out the peculiarity that the expert environment did not include representatives of law enforcement agencies. In authors' opinion, the peculiarity of the sample of experts

this time around, the widening of the expert environment, manifests the problem of organised crime as a phenomenon, since the expert opinion is not determined by criminal qualification, which is often limited by the rule of law, but by the perception of the social danger of individual acts. Such an approach is particularly important in the risk-oriented approach, which focuses on trends and comparisons and removes a certain veil of uncertainty.

In assessing the risks in the fiscal sphere of Ukraine, the influence of organised crime was emphasised by types of basic taxes and sectors (spheres) of the economy (Table 5). In the general group of experts,

Table 4

Threats to the forestry sector in Ukraine

Risk assessment, %	Average	State Forest Resources Agency	State Specialized Forest Enterprise "Forests of Ukraine"	Science and Education	NGOs	Business
Illegal deforestation	61,78	60,98	61,08	53,11	58,34	69,94
Easy access to money laundering schemes	61,27	69,08	63,72	56,47	64,31	77,19
Targeted activities of organised crime in the forestry sector	55,67	62,05	62,34	47,01	58,34	73,56
The spread of cross-border organised crime related to the illegal export of forest products	50,06	37,74	55,45	47,01	50,61	64,39

the tax police (State Fiscal Service of Ukraine) is a law enforcement agency, which makes it a key group of experts in the assessment of organised crime threats. Conclusions have been drawn on the basis of this data.

Table 5

Intentional activities of organised crime in the fiscal sphere

Intentional activity of organized crime in the fiscal sphere in relation to	Risk assessment, %
1.1. VAT	67,95
1.2. corporate income tax	53,15
1.3. excise tax	59,16
1.4. personal income tax	46,18
1.5. customs duties	56,55
1.6. the single social contribution	37,69
1.7. the single tax	34,35
1.8. rent	32,26
1.9. the tax on real estate other than land	28,67
1.10. land payments	35,28
1.11. environmental tax	34,18
1.12. banking activity	54,26
1.13. non-banking financial institutions	51,51
1.14. the energy sector	55,45
1.15. the oil and gas industry	63,41
1.16. fuel resources	66,10
1.17. the agricultural sector	62,72
1.18. forestry	55,19
1.19. water management	37,57
1.20. foreign economic activity	65,32
1.21. the production and circulation of alcoholic beverages and tobacco products	70,75
1.22. the metallurgical industry	49,54
1.23. the machine-building industry	46,56
1.24. the pharmaceutical industry	54,31
1.25. the chemical industry	43,49
1.26. construction	60,37
1.27. the IT sector	40,28
1.28. transport	43,12
1.29. trade	51,94
1.30. the hotel business	30,26
1.31. the restaurant business	29,46
1.32. real estate transactions	43,63
1.33. tourism	27,14
1.34. postal services and courier activities	31,13
1.35. other services (not listed)	27,80

By type of tax, the most significant threat to the activities of organised crime in Ukraine is VAT (red risk level – 68%), and significant (orange risk level) – corporate income tax (53%), excise duties (59%) and customs duties (57%).

In terms of sectors of economic activity, the highest risk (red level) of the spread of organised crime to minimise tax revenues is characterised by:

– The oil and gas industry (63%);

– fuel resources (66%);
 – the agricultural sector (63%);
 – foreign trade (65%);
 – the production and distribution of alcoholic beverages and tobacco products (71%);
 – construction (60%).

The high level of risk (orange area) in relation to the intentional activity of organised crime in Ukraine in the fiscal sphere is associated with:

– Banking activity (54%);
 – non-bank financial institutions (52%);
 – energy sector (55%);
 – forestry (55%);
 – pharmaceutical industry (54%);
 – trade (52%).

The overall conclusion is that the activities of organised crime have had a significant impact on fiscal relations.

The initial analytical conclusions and strategic analysis in the field of fiscal security of Ukraine based on a risk-oriented approach have already underlined the extreme importance of such an innovation in Ukraine and formed a system of knowledge to justify the priority areas for further development of this segment in Ukrainian society.

It is on the basis of analytical conclusions, in accordance with the expert background of the fiscal system, on the significant risks of organised crime in the economic sphere that the following analytical task was defined – to assess the threats of organised economic crime using the Europol SOCTA methodology (Table 6).

Table 6 shows only partial results, but these data not only confirm the previous level of risk of organised crime in the country's economy, but certain characteristics indicate the systemic nature of this phenomenon, in particular: more than 70% of the identified OCGs are characterised by a "professional" feature, i.e., they provide criminal services to businesses, ensuring the shadow economic component (money laundering, illegal production and trafficking of excisable goods, etc.); more than 10% of OCGs unite more than 9 people in criminal activities, which, according to Ukrainian legislation, provides for additional qualifications and the definition of "criminal organisation"; almost 15% of OCGs are characterised by cross-border and transnational criminal activities.

An important aspect is that the data obtained is based not only on criminal case files (55%). Expert opinion is also formed on the basis of criminal intelligence (27.40%) and crime analysis (15.90%).

Thus, in contrast to the analysis of state statistical data, conclusions based on a risk-oriented approach indicate the extreme vulnerability of the country's economy to the impact of organised crime on economic relations, both in general at the national

Table 6

Characteristics of OCGs in the fiscal sphere according to the SOCTA methodology (sample)

Indicators	Characteristic	Percentage
Source	Criminal case	55,30%
	Criminal intelligence	27,40%
	Control proceedings materials	1,40%
	Criminal Analysis	15,90%
OCG sign	"Professional" OCG: provides criminal services to representatives of the real sector of the economy, serves its own criminal economic interests	71,60%
	"Non-professional" OCGs: representatives of the real sector of the economy who have their own assets use criminal services of "professional" OCGs to minimise taxes	28,40%
Scale OCG	More than 9 members	10,20%
	5 to 9 members	28,50%
	3 to 5 members	61,40%
Geographical	OCG carries out its activities at the transnational level	10,60%
	OCG carries out its activities at the cross-border level	4,30%
	OCG carries out its activities at the national level (more than five regions)	20,30%
	OCG carries out its activities at the interregional level (up to five adjacent regions)	28,90%
	OCG carries out its activities at the regional level	25,80%
	OCG carries out its activities at the local level (district, city)	10,20%

level and in relation to individual industries and spheres of activity. At the same time, risk assessment represents only a basic level of perception of the problem of organised crime and identifies certain trends, which is only meaningful if the knowledge gained about crime is further used in the development and implementation of appropriate state policy or in the formation of the strategic foundations of the country's law enforcement agencies.

5. Conclusions

Based on the need to objectively reflect the level of organised crime in the economy using two key approaches to criminological analysis – statistical and sociological, which are studied in detail in the scientific literature, this article examines the results of using state statistics data in comparison with the results of the risk-oriented sociological approach. The conclusions clearly indicate that it is impossible to objectively reflect the level of organised crime in the Ukrainian economy based on the use of state

statistics. At the same time, the results based on the risk-based approach clearly indicate a steady upward trend in the criminal activity of OCGs in the country's economic relations. Since this study is limited to one country, it is advisable to conduct a comparative analysis of key approaches to criminological analysis in other countries in future research. This study is important from both theoretical and practical perspectives. From the theoretical point of view, it complements a huge body of research, emphasising the importance of the expert component of crime analysis based on a risk-based approach. From a practical point of view, the results obtained are useful for Ukraine and other developing countries for an objective perception of the phenomenon of organised crime, both in terms of the scale of criminal manifestations and the degree of their destructive impact on society, rights and freedoms of citizens, in order to determine effective law enforcement policy and strategic development priorities.

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