

## CRISIS MANAGEMENT AT THE REGIONAL LEVEL: CONCEPTUAL APPROACHES

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**Abstract.** The analysis of the sources, in which the subject of the study was crisis management in the regions, made it possible to identify the unresolved parts of the problem, including: development of effective mechanisms for financial support of regions in crisis situations; creation of effective mechanisms of communication and cooperation between regional authorities and other stakeholders; ensuring equal access to anti-crisis measures and resources for all regions; formation of strategies and programs aimed at support for innovative development of territories; adopting a holistic approach to crisis management; implementation of effective monitoring and evaluation of the results of anti-crisis measures; stimulation of investment activity and entrepreneurship; creating conditions for the active participation of local communities; coordination of efforts between different levels of government; development of information systems and technologies that contribute to effective crisis management at the regional level. The study analyzes the conceptual foundations of crisis management at the regional level. *The tasks* solved in the study are as follows: determination of the definition of "crisis" based on a combination of etymological and conceptual approaches; identification of sources of crisis generation at different levels of abstraction; definition of the main elements of crisis management. *The methodological basis* of the study was made up of traditional general scientific methods of cognition, including the method of scientific abstraction, analysis, synthesis, combination of historical and logical, induction, and deduction – *research*

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*results.* The polysemantic nature of the phenomenon of crisis, its duality, which dialectically combines the processes of significant aggravation of contradictions at different levels of socio-economic relations with the opportunities that open up, that is, with the so-called "lines of change" that form possible trajectories of the development of events (progressive or regressive) are revealed. Trends highlighted the distribution of powers in the multi-level system of socio-economic development due to the modern nature of the genesis of crises and the mechanism of their spread. A definition of crisis management is provided as a set of ways, methods, techniques, ways (tools), that is, as a mechanism for preventing or mitigating the consequences of crisis phenomena in the economy in particular and the country's society as a whole through the mechanisms for implementing the following components: assessment of vulnerabilities and risks, prevention, preparedness, response, recovery. The close relationship between the institutional environment of macro- and meso-levels and the weight of subjective factors of the crisis is revealed. The mechanism of influence of the subjective aspect of decision-making by representatives of the ruling elite, based on rent motivation (extractive institutions), which forms the crisis of the core of the system, which spreads to the "periphery close to the core", "the center of the periphery", "the middle periphery", "the periphery remote from the core. It is proved that the dominance of extractive institutions forms challenges that acquire signs of crisis when crossing the limit of adaptive potential (violation of homeostasis) at bifurcation points. The basis of the organizational-institutional architectonics of the optimal mechanism of crisis management at the regional level, adequate to exogenous and endogenous challenges, capable of ensuring the effective use of the integrative potential of the region, endowed with adaptive properties, has been allocated. It is called algorithms of joint management to ensure a synergistic effect of interaction between stakeholders of the process, which include local governments, central authorities, the public, science, and business. *The study's practical significance* lies in the scientific substantiation of the applied processes of formation of an effective organizational and economic mechanism of crisis management at the regional level.

## 1. Introduction

Regions in Ukraine face socio-economic challenges of various etiologies that cause development problems; in particular, its unevenness poses a severe threat to individual regions and the country as a whole, hindering the achievement of overall progress and sustainability. Disparities between regions in income, infrastructure, employment opportunities, and access to services cause imbalances within the country and not only hinder the well-being of the local population but also negatively impact the country's competitiveness.

Military aggression against Ukraine exacerbates problems, negatively affecting economic growth and denying stability. The urgent task is to meet the urgent need to develop effective strategies for the balanced development of the entire territory of Ukraine. Its solution lies in considering each individual region's unique characteristics and potential. It is necessary to focus on the importance of targeted measures and policies to support inclusive increasing and decreasing regional inequalities based on the coordination of efforts by both government and stakeholders.

Analysis of the sources, in which the subject of the study was crisis management in the regions, allows us to allocate the unresolved parts of the problem, including:

- development of effective mechanisms for financial support of regions in crises [1];
- creation of effective mechanisms of communication and cooperation between regional authorities and other stakeholders [2];
- ensuring equal access to anti-crisis measures and resources for all regions [3];
- formation of strategies and programs aimed at supporting the innovative development of territories [4];
- adoption of a holistic approach to crisis management [5];
- implementation of effective monitoring and evaluation of the results of anti-crisis measures [6];
- stimulation of investment activity and entrepreneurship [7];
- creating conditions for the active participation of local communities [8];
- coordination of efforts between different levels of government [9];
- development of information systems and technologies that contribute to effective crisis management at the regional level [10].

The study analyzes the conceptual foundations of crisis management at the regional level.

*The tasks* solved in the study are as follows:

- determination of the definition of "crisis" based on a combination of etymological and conceptual approaches;
- identification of sources of crisis generation at different levels of abstraction;
- definition of the main elements of crisis management.

*The study's methodological basis* consisted of traditional general scientific methods of cognition, including scientific abstraction, analysis, synthesis, a combination of historical and logical, induction, and deduction. This is due mainly to the theoretical nature of scientific research.

### **2. Scientific and theoretical content of the crisis phenomenon**

The definition, which defines the main subject of this research, is the category of "crisis management", the definition of which systematically connects the etymological and conceptual approaches, which lie in the plane of such critical concepts as "crisis", "crisis management". In order to analyze the scientific interest in the above concepts, we conducted a statistical study of their mentioning in the sources of the Scopus (Table 1) and Web of Science (Table 2) databases.

As can be seen from Tables 1, 2, the subject areas within which the study of the crisis and management aimed at its settlement are general theoretical and applied economic sciences, social sciences, local history, and public administration. In contrast, the largest share of economic sciences should be noted. The presented data demonstrate the difference in the scientific tradition: the widespread tradition in the national practice of the dominant use of the term "crisis management" is at odds with the prevalence of the category of "crisis management" in Scopus and Web of Science publications (Scopus database – 167 documents in all subject areas with the category "crisis management" versus 13985 documents with the category "crisis management"; Web of Science database – 130 against 17284).

The starting point of the study of crisis management is the specification aspects associated with the crisis phenomenon. We will consider it in the context of the core of the theoretical analysis of crisis management, the

Table 1

**Keyword analysis of the Scopus database as of 27.07.2023**

Title, abstract, keywords	Number of documents in the subject area		
	Economics, Econometrics and Finance	Business, Management and Accounting	Social Sciences
Crisis	60 619	24 425	19 086
Crisis management	7 504	4 064	2 381
Anti-crisis management	88	44	35

Table 2

**Keyword analysis of the Web of Science database as of 27.07.2023**

Title, abstract, keywords	Number of documents in the Research Area				
	Business Economics	Sociology	Area Studies	Social Sciences + Other Topics + Social Issues + Social Work	Public Administration
Crisis	64 294	8 653	8 221	20 539	8 971
Crisis management	11 368	513	470	2771	2 162
Anti-crisis management	99	3	5	15	8

scope of which is concentrated on socio-economic development as a whole with the definition of dialectical mutual influences of various levels, ranging from global to the segment of individual economic entities.

The term "crisis" is polysemantic; for example, the ancient Greek word "κρίσις" (from which the modern term is derived) in translation means judgment, judgment over oneself, resolution, fracture, complex transitional state, result. The most striking interpretation that embraces the duality of the essential understanding of the crisis is its version characteristic of the Chinese language, which consists of two components: danger and opportunity. The crisis forms the so-called "lines of change", which include a variable component of transformations, a specific direction without guaranteeing a positive solution for decisions, risks, and actors of different roles. It should be noted. Despite the long duration of the historical process of studying crises, economists have no unanimity of opinion about

their essence. Examples of modern scientific views on the content of the "economic crisis" category are presented in Table 3.

Table 3

**Scientific views on the essence of the category "economic crisis"**

Author	Interpretation of the essence of the concept	Source
Datsyuk I.V.	An objective process that leads to the optimization of the system or to its destruction in case of inability to adapt to new conditions and develop because this attitude is based on the dialectical unity of the main trends in the existence of the system – sustainable functioning and development, which gradually replace each other	[11, p. 166]
Tkachenko A.M., Yelets O.P.	A large-scale, unforeseen, turning point event that leads to both negative consequences in economic activity (causing an imbalance in the enterprise system) and positive consequences that increase the efficiency of the enterprise, setting in motion transformational forces that contribute to its evolution	[12, p. 61]
Barton L.	A large-scale, unforeseen event that leads to potentially harmful outcomes.	[13, p. 2]
Vladika Yu.P.	A set of quantitative and qualitative transformations, which, as a rule, ultimately lead to potentially negative consequences for the functioning of the economic system	[14, p. 61]

*Source: compiled by [12; 14]*

From the point of view of etymological understanding, the crisis should be defined as:

- movement from one level of development to another (progressive or regressive);
- significant aggravation of contradictions at different levels of socio-economic relations;
- a transitional moment of essential transformations.

Didenko L.V., Kondrashova-Didenko V.I. offer the following options for considering the structure of the crisis [15]:

- Tree (the development of the crisis flows from one source, and then branching occurs, it is possible to determine the "problem" area, provided that this "map" is drawn up correctly and in detail);

– Pyramidal, within which there are two options for finding the source of the crisis. It can be the base of the pyramid as a result of the disintegration of the elements or the axis as a result of the disintegration of the elements of the base;

– spherical (the essence of the crisis can be "periphery distant from the core", "middle periphery", "center of the periphery", "periphery close to the core", the core itself). The closer the essence of the crisis is to the core, the more complex the decisions to stop it will be.

### **3. Triggers for the formation of crisis phenomena**

The complexity and interconnection of various socio-economic processes mark modern society. The study of the theoretical foundations of the multi-level socio-economic system is a necessary component of understanding the place of each element in generating crises and entering the trajectory of development. One of the key concepts in the context of the presented problem is the concept of "level". The latter can be described as a separate component of a system that functions at a certain level of abstraction and interacts with other system levels. In the economic context, such levels may include the micro-level (enterprises, citizens), the meso-level (regions, sectors of the economy), the macro-level (the state), and the mega-level (international organizations). The interaction between the levels of the socio-economic system can take the form of vertical or horizontal coordination. Vertical coordination involves the interaction and exchange of information between subordinate elements, which contributes to solving shared problems in the system. Horizontal coordination, for its part, reflects the relationship between actors of the same level, which allows the pooling of resources and efforts to achieve common objectives.

The socio-economic development system's structure can be represented in the form of a pyramid, where each level has its own functional role and place in the overall process. At the lower level are microeconomic entities such as businesses and citizens, which are the backbone of the economy. At the middle level, mesoeconomic actors (regions and sectors of the economy) ensure coordination and interaction between the micro and macro levels. At the top level are macroeconomic actors (the state), as well as international organizations that carry out strategic management and formulate policies for the development of the economy as a whole.

Since the middle of the XX century, under the influence of international processes, in particular globalization, as a process of increasing the interdependence of states, the applied aspects of the implementation of state sovereignty have undergone a significant transformation. I. Troyan focuses on the significant contradiction between the formal Westphalian international principles (which include sovereignty) and the new "rules of the game" in the international system [16, p. 158].

Within the framework of the traditional approach, state sovereignty is defined as a historically determined political and legal property of the national state, reflecting its supremacy and level of independence in resolving internal issues and in relations with other states [17, p. 53]. According to the Westphalian system, the state-dominated all other forms and manifestations of power in its territory. The development of the system of meta-level relations has taken modern international relations beyond this principle. The performance of the state's functions in ensuring security, well-being, and stability largely depends on the processes in the world economy and the activities of international institutions; in fact, the essential functions of the state are reduced as a result of the deliberate renunciation of part of sovereignty in favor of supranational institutions. As a result, supranational structures acquire their sovereignty and create new types of political identities and loyalties that "alienate" the objects of power from the state.

In the current time, there are transformations in the redistribution of powers between the levels of the socio-economic system, one of the directions of which is the transfer of part of the functions of economic regulation from the macroeconomic to the supranational level. States consciously choose to lose part of their sovereignty; this is due, in particular, to the modern nature of the genesis of crises and the mechanism of their export within the framework of metaeconomics, as well as determines the tools of crisis management immanent at each level.

Modern concepts regarding the theory of economic crises and views on the causes of crisis phenomena mainly explain the causes of crises by the fact that as a result of the action of some external factor (exogenous), the internal mechanism inherent like the economy is realized, which leads to crises [18, p. 5].

Economic crises are the result of the interaction of endogenous and exogenous factors. Endogenous factors arise within the economic system



and are related to the structure and dynamics of internal processes and actions of economic entities. On the other hand, exogenous factors originate from the outside and can be caused by global events and changes in the external environment. Studying these factors is essential for understanding the nature and prediction of economic crises. Through the analysis of the relationship between endogenous and exogenous factors, it is advisable to develop policies to reduce the risk of crisis and ensure sustainable economic development.

An approach to classifying crisis factors based on their dependence on a person's will and consciousness distinguishes objective and subjective causes of crisis phenomena (Table 4). Objective factors are exogenous and generated within economic, political, social, and technological processes. Subjective factors, in turn, are related to economic agents' psychological and behavioral aspects.

Table 4

**Classification of Crisis Factors**

Factors	Type	Examples
Objective	Economic	Global challenges include a growing budget deficit, the country's insolvency, low competitiveness, underdeveloped infrastructure, a decrease in consumer purchasing power, and a reduction in investment activity.
	Political	Government instability, geopolitical conflicts (hostilities, sanctions)
	Social	Demographic changes (population aging, increased social spending), social conflicts
	Technological	Obsolescence of technology, environmental disasters, environmental pollution, depletion of natural resources
Subjective	Psychological	Mistrust, panic, irrational behavior (underestimation of risks, unreasonable lending, speculation in the markets)
	Behavioral	Irrational decision-making (irrational allocation of resources, abuse of financial instruments), market manipulation (at the micro level – unfair competition, at the macro level – the presence of conditions for rent-seeking behavior of the political elite)

The weight of the subjective factors of the macro-level and meso-level crises depends on the institutional environment that operates at the national level. It should be noted that the unitary nature of the state system in Ukraine determines the copying of the nature of macro-level institutions at the regional level. Of particular interest from the point of view of determining the deep foundations of subjectivization of managerial decisions is the work of D. Adjimuglu and J. S. Tolkien. Robinson, which in Ukrainian translation is called "Why do nations decline? The Origin of Power, Wealth and Poverty", and in the original "Why Nations Fail" [19]. The authors proposed a classification of institutions into inclusive and extractive. Extractive institutions are tantamount to a rent-seeking economy, removing most of society from income distribution and decision-making. Inclusive institutions are a competitive economy, a free market, and political democracy.

Economic and political institutions have a strong synergistic relationship:

- Extractive political institutions concentrate power in the hands of a narrow circle of individuals (quasi-elites) who are not subject to significant restrictions on exercising power. The function of the elite, as the highest stratum of any system, is the management of the system as a whole or its various subsystems, the determination of norms and values that serve the reproduction of the system and its development in a specific direction, in fact, the formation, in particular, of economic institutions;

- Inclusive political institutions are based on the distribution of power and limit its arbitrary exercise. They structure the economic institutions of a competitive economy, a free market, and a fair distribution of resources. Establishing extractive economic institutions to enrich the elite is impossible.

The elite, which has combined political and economic power in its person (oligarchy), does not use it to develop the economy. The reasons for the behavior inherent in the oligarchy are investigated in the work of Larina T.F., Danylenko V.V. [20, p. 70]. They consider a three-component chain of relationships: "cost shift" – "motivation shift" – "power shift":

- "cost shift" – the costs of rental activity are lower than those of productive ones;

- "Motivation shift" is a suppressed motivation for effective, productive activity and excessive motivation for inefficient (from the point of view of society) rental activity. Thus, the most attractive area of capital investment

was not the introduction of innovations in the field of business but investments in the strengthening of political power;

– "Shift of power" is a violation of the balance in the system of power caused by the emergence of rent motivation as the main incentive for economic activity and corruption as a mechanism for its implementation. Artificial barriers are being created, both in markets and in the political system, and incentives for economic and political activity are being destroyed for all those who do not belong to the ruling elite.

As a result, the mechanism of influence of the subjective aspect of decision-making by representatives of the ruling elite, based on rent motivation, forms objective conditions for the functioning of actors at all levels of economic relations. At the same time, as we have already noted, the system with the dominance of extractive institutions, unlike inclusive systems, does not contain internal macroeconomic development incentives. Within the framework of the theory of spherical crises, it can be argued that extractive institutions are a potential source of the crisis of the core of the system, extending to the "periphery close to the core", "the center of the periphery", "the middle periphery", "the periphery distant from the core".

It should be noted that economic systems are open, and it is quite logical that there is a contradiction between the mainstream vector of development of the world economy with the prevalence of aspects of innovation, concepts of the knowledge economy, development of competition, and systems based on extractive institutions. Such a situation generates challenges that are highly likely to lead the system to a crisis. A challenge is a specific problem in time and space (counteraction, obstacle) on the way to safe development, which arises before a social object or socio-economic system and has a threatening nature, can pose both a potential threat (the presence of destabilizing factors that may affect the system in the future) and a real one (the presence of destabilizing factors that affect the system and require immediate settlement). Challenge is the initial stage of any confrontation or conflict since one object desires to counteract another object in the realization of its interests [21, p. 14].

It is an excellent question to ask when challenges and risks to the system become a crisis. It depends on the adaptive potential of the system, which is understood as the ability to counteract external forces that provoke changes in systems. In its essence, the category of "adaptive potential" is close to

the category of "homeostasis"; its content is revealed in the ability of open systems to maintain the constancy of the internal state through coordinated reactions aimed at maintaining dynamic equilibrium. The zone of stability ends, and transformations begin at the bifurcation points, determining the system's limit to adaptive potential. There must be an ambiguous relationship between the value of adaptive potential and the system's desire for change. The high degree of homeostasis of the system inhibits the choice of radical strategies for responding to challenges.

Crisis classification is crucial for effective crisis response, mitigation strategy development, and resource allocation. Possible variants of crisis decomposition include the following classification features: origin (trigger), scale, nature of the problems caused, and mechanism of maturation of the trigger incident (Table 5).

Natural crises encompass earthquakes, hurricanes, pandemics, etc., due to natural phenomena. Technological crises result from failures or accidents in complex systems, such as nuclear accidents, cyberattacks, or industrial disasters. Economic crises are related to decreased economic activity, financial disruptions, rising unemployment, and inflation. Socio-political crises involve conflicts, political instability, and social unrest.

The scale of the crisis and the mechanism of maturation of the trigger incident determine its geographical and temporal scales. Crises can be acute or chronic, ranging from sudden, short-term events to prolonged, ongoing problems. Acute crises, such as terrorist attacks or plane crashes, arise suddenly and require immediate action. Chronic crises, such as climate change or economic downturns, develop gradually and require constant efforts to be addressed. In addition, the magnitude of the crisis can range from local incidents to regional or global impacts. Acknowledging the duration and scale of the crisis helps to plan and coordinate responses to challenges effectively. Crises differ from the problems they generate. The areas of localization of crisis consequences can be financial, humanitarian, healthcare, and technology.

The intensity and severity of the crisis describe the scale and impact it has on various aspects of human life. Crises can be classified according to their perturbation level, ranging from mild disturbances to catastrophic events. For example, a mild economic recession can lead to job losses and lower consumer spending, while a severe financial crisis can lead to

**Classification of types of crises**

<b>Classification feature</b>	<b>Types of crises</b>	<b>Description</b>	<b>Examples</b>
By origin	Natural crises	Crises caused by natural phenomena	Earthquake, flood, hurricane
	Artificial crises	Crises caused by technical and industrial problems	Artificial accident, chemical disaster
	Economic crises	Crises related to economic instability	Financial crisis, recession
	Socio-political crises	Crises caused by social conflicts and tensions	Political crisis, social protests
By Scale	Local crises	Crises confined to a specific area	Local fire, factory accident
	Regional crises	Crises Affecting a Specific Area or Country	Conflict between two countries, natural disaster
	National crises	Crises that affect the whole country	The financial crisis, political crisis
	Global crises	Crises that have an impact on the international community	Pandemic, global environmental crisis, global financial crisis
According to the nature of the problems	Financial crises	Crises associated with financial disruptions and collapses	Bank bankruptcy, financial hacking
	Humanitarian crises	Crises involving hunger, refugees, and war	Hunger in the region, humanitarian crisis from the war
	Health crises	Crises related to health and medical problems	COVID-19 pandemic, virus epidemic
	Technological crises	Crises related to technological failures and cyberattacks	Cyberattack, system failure in power supply
According to the mechanism of maturation of the trigger incident	Acute crises	Unexpected events that require an immediate response	Terrorist act, natural disaster
	Chronic crises	Problems that accumulate over time and gradually develop	Growing environmental problems, deteriorating economic situation

widespread economic collapse. Similarly, a local disaster can cause damage to infrastructure, while a large-scale disaster can result in loss of life and community displacement. Assessing the intensity and severity of the crisis determines the allocation of resources and the prioritization of measures.

#### 4. Elements of crisis management

The crisis itself contains a solution. Crisis management is a set of ways, methods, techniques, ways (tools), that is, a mechanism for preventing or mitigating the consequences of crisis phenomena in the economy in particular and/or the country's society as a whole. As noted above, for publications contained in the Scopus and Web of Science databases, the use of the term "crisis management" is more typical, which has become the basis for the specification of keywords in the subject area of management crisis processes with the use of VOSviewer (Figure 1, 2), including, in particular:

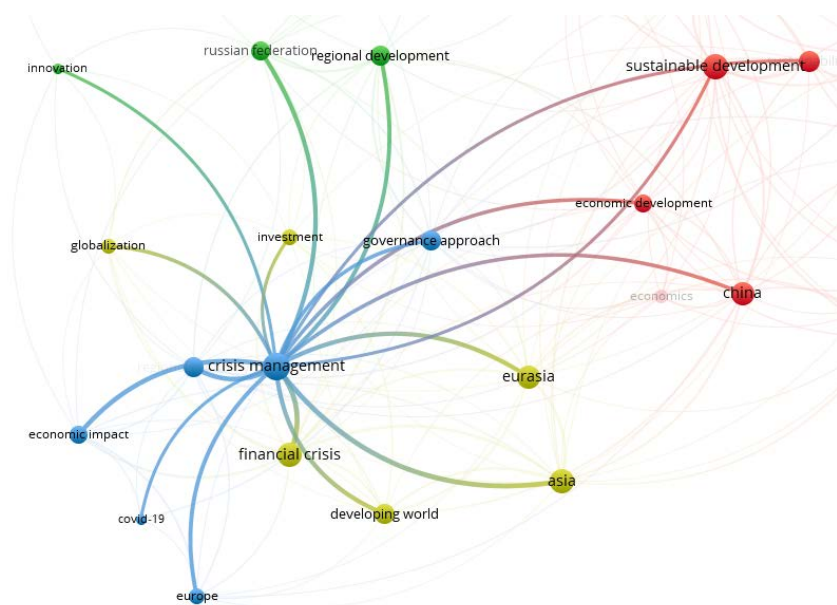


Figure 1. Structure of keywords "crisis management" (Scopus database) (built-in VOSviewer)



2. Scientific and economic substantiation of the anti-crisis program, including the identification of opportunities for optimal managerial influence and actions that can prevent the crisis from further developing in the region. The program's development should be based on alternative scenarios for preventing crisis situations.

3. Identification (determination) of management tools for overcoming crisis manifestations, ensuring the maximum positive result of regional development.

4. Differentiation of management technologies, assessment of the current situation and development of ways to solve it, formation of anti-crisis management strategies for regional development, and assessment of the effectiveness of crisis management.

5. Selection of personnel to solve strategic tasks related to the cadence of crisis management of development. By understanding its concept and essence and focusing on critical components, decision-makers and practitioners can develop robust strategies and frameworks that ensure effective crisis preparedness, response, and recovery. This, in turn, contributes to the resilience, stability, and sustainable development of regions in the face of potential crises.

Crisis management includes the following components:

– Vulnerability and risk assessment – identification and assessment of potential vulnerabilities and risks the system may face as a whole or its component. Risk assessment is a tool for predicting the likelihood and potential consequences of crises, which allows you to develop a strategy for the effective allocation of resources and programs for preventing or mitigating crises;

– Prevention. The focus is on implementing safeguards and policies to minimize the likelihood or severity of crises. This may include implementing safety regulations, investing in infrastructure resilience, promoting sustainability practices, and building a culture of preparedness and risk awareness among stakeholders;

– Readiness involves a willingness to respond effectively to crises when they arise. Preparedness includes developing comprehensive contingency plans, establishing communication networks, training staff, and conducting training and simulations. It aims to increase the region's ability to mobilize resources, coordinate response efforts, and minimize the potential negative impact of crises on affected populations and infrastructure.



– Response. Crisis management is activated when a crisis occurs. It includes immediate action to tackle the crisis, mitigate its impact, and protect lives and critical assets. Response measures may include search and rescue operations, evacuation procedures, emergency medical care, and public safety measures.

– Recovery. The focus is on restoring everyday life and contributing to the long-term recovery and development of the region. This includes assessing the damage caused by the crisis, rebuilding infrastructure, providing social and economic support to affected communities, and implementing measures to prevent future crises.

– Control over the implementation of crisis management measures: evaluation of the effectiveness of the implementation of the plan of anti-crisis measures, analysis of the quality of implementation of management decisions, accounting for the results of the implementation of anti-crisis procedures, and control over the results of the implementation of strategic and tactical measures.

Effective crisis management requires a comprehensive and coordinated approach covering all essential components, cooperation between various stakeholders, including government agencies, local authorities, civil society organizations, and the private sector, as well as international institutions, in order to minimize the social, economic and environmental consequences of crises and promote the sustainable development of the economic system at different levels.

Government bodies, within the framework of defined competencies, provide resources and legal frameworks and implement the tools of macroeconomic regulation necessary to respond to crises. Local authorities are more competent in identifying needs at the regional level. The distribution of powers between the central and local levels of executive power is based on the principle of subsidiarity, according to which public power should be exercised at the level closest to the population. The hierarchy of public power decision-making and public power support for their implementation should be dictated by the level of public significance of problems that require public government intervention [23]. In overcoming the crisis, the idea of subsidiarity includes the possibility of replacing or supplementing the resources of one of the subjects of power with the resources of another. In contrast, this other subject can take over the functions of the one whose

resources are insufficient to fulfill them [24]. In this case, we have developed the idea of the author, who considered subsidiarity as a phenomenon and not a prerequisite for the delimitation of powers of anti-crisis regulation.

Non-governmental organizations identify the most vulnerable groups and develop proposals to assist them. They also can accumulate resources from the non-governmental sector to help victims of crises. The latter often disproportionately affects specific segments of society, especially vulnerable segments. These include individuals or groups who are marginalized, economically disadvantaged, or face systemic discrimination. Vulnerable Populations may include children, the elderly, people with disabilities, ethnic or racial minorities, refugees, and economically disadvantaged populations. Recognizing the different impacts of crises on vulnerable populations is critical to ensuring equitable responses and addressing significant systemic challenges.

The private sector also plays a vital role in crisis management. Enterprises strengthen the capacity to overcome the crisis by providing resources, financial assistance, and expertise, providing the economy with the necessary goods and services during the crisis, and participating in the recovery of the economy after it.

Historical analysis suggests that governments and international organizations play an important role in crisis management. In today's globalized world, both state and national non-state actors turn to international organizations with a request to help solve problems that have signs of crisis. Let us use the reference to the opinion of NATO representatives on the changing nature of crises and the role of international organizations in their management: "Increased transnationalization, globalization, and mediatization, as well as impressive breakthroughs in information and communication technologies, have led to the emergence of new forms of threats (e.g., hybrid and cyber) that undermine more 'traditional' notions of crisis management. This makes it equally difficult for governments and international actors to identify an emergency's warning signs or predict its impact beyond immediate, short-term consequences.

At the same time, it should be noted that crises have specific consequences for international organizations involved in overcoming them within the framework of specific competencies. In their study, Eva-Karin Olson and Bertjan Verbeek raise the question of the consequences of

crises for the roles of international organizations and their centralization and autonomy in crisis management due to the differences between the domestic and international spheres. As the authors note, "All international organizations, regardless of their relative political autonomy, are kept on a short leash by their owners (member states), which is why member states are likely to centralize decision-making within an international organization when events on the ground threaten basic agreements between member states and international organizations. Member States can use their powers in various ways: they can begin to monitor the actions of an international organization more closely; directly influence decision-making; attempt to alter or even revoke the powers conferred on the international organization" [26]. A centralized crisis management system has bottlenecks in information and decision-making due to cognitive and time constraints. As a rule, decentralization occurs at the operational level [27]. There is a fitting emphasis on the fact that crises are the source of organizational processes and power structure changes. To summarize, there is no ideal model for overcoming cross-border crises; in each case, the crisis management system should systematically combine elements of centralization and decentralization of institutional decision-making units.

Timely and effective crisis management, built on the principles of transparency and open information exchange, can reduce the negative consequences of the crisis at the level of social structures, economic well-being, and environmental balance. It will ensure more sustainable development of systems in the future, improving their ability to withstand changes and challenges or assimilate them through the development of adaptive capacity.

The theoretical basis of crisis management is an approach to risk management, which includes identifying potential risks, analyzing their probability and consequences, and implementing measures to minimize or eliminate them. Risk management provides a systematic framework for forecasting and overcoming crises, allowing for a more proactive and preventive approach to regional development [28, p. 229–234].

The main goals of crisis management:

– Minimization of economic losses. Crises can have serious economic consequences, including business disruptions, job losses, and reduced productivity. Practical crisis management aims to implement measures that

mitigate the financial consequences of crises, such as providing financial assistance to affected businesses, promoting the resumption of economic activities, and supporting recovery and reconstruction efforts;

– ensuring public safety. In times of crisis, the population's safety and well-being are paramount. Crisis management aims to prevent or minimize harm to individuals and communities by implementing evacuation plans and emergency medical services and ensuring access to essential resources and services. This objective also includes providing accurate and timely information to the public to raise awareness and facilitate the adoption of appropriate measures;

– preservation of critical infrastructure. Infrastructure plays a vital role in the functioning and development of regions, including transportation networks, power grids, telecommunications systems, and healthcare facilities. Crisis management focuses on protecting and restoring critical infrastructure to ensure the continuity of essential services and support the recovery process;

– restoration of everyday life in the affected regions. Crises can disrupt daily life and have a significant social and psychological impact on communities. Crisis management aims to facilitate the return to everyday life by supporting survivors, meeting social and psychological needs, and implementing activities that promote community resilience and social cohesion;

– increasing preparedness for future crises. This aspect of crisis management tasks includes learning from past experiences and continuously improving strategies, policies, and mechanisms to enhance the system's ability to anticipate, respond to, and recover from future crises through post-crisis assessments, updating emergency response plans, improving early warning systems and building a culture of resilience and risk awareness.

Communication strategies are fundamental in crisis management. Effective communication strategies include disseminating clear and consistent messages to the public, stakeholders, and the media, as well as using various communication channels, such as social media, emergency alerts, press releases, and public briefings.

Coordination mechanisms play a key role in crisis management. Their effective functioning in the system of interaction of stakeholders in the process contributes to the smooth exchange of information, decision-

making, and resource coordination, helps to avoid duplication of efforts, and ensures a uniform and coordinated response to crises.

We will consider the forms of crisis management for financial crises, natural disasters, health emergencies, and socio-political crises as examples.

Financial crises, such as economic downturns, currency devaluations, or banking system failures, pose severe problems for development. Crisis management in the financial sector often involves implementing measures to stabilize financial institutions, restore market confidence, and ensure the inflow of credit to support business and economic growth. Strategies such as regulatory reforms, liquidity injections, and fiscal stimulus packages can be used to address specific problems arising from financial crises.

Natural disasters such as earthquakes, hurricanes, floods, and wildfires require crisis management strategies to minimize loss of life, protect infrastructure, and facilitate recovery. Crisis management in the context of natural disasters includes emergency preparedness measures, including early warning systems, evacuation plans, and coordination of rescue and relief operations. Disaster recovery efforts can include rebuilding infrastructure, assisting affected communities, and implementing measures to build resilience to future natural disasters.

Health emergencies, such as pandemics or disease outbreaks, pose unique challenges for crisis management. These crises can strain health systems, disrupt the functioning of societies, and have serious economic consequences. Crisis management in health emergencies includes strategies such as rapid response and containment, public health surveillance, resource mobilization for health facilities, and communication campaigns to disseminate accurate information and promote preventive measures. Collaborating with international health organizations and deploying vaccines, therapies, and protective equipment can also be critical to addressing health crises.

Socio-political crises, including social unrest, political instability, or civil conflicts, require crisis management strategies to address the underlying social tensions and restore stability. Crisis management in the socio-political context includes dialogue and negotiation processes, conflict resolution mechanisms, and reconciliation efforts. Strategies can include policy reforms, social and economic development programs, and initiatives to promote inclusivity and problem-solving. Ensuring the protection of human rights, facilitating peacekeeping operations, and strengthening

democratic institutions are vital aspects of crisis management in socio-political crises.

Regional development as an object of crisis management has unique features. It provides for the analysis and solution of identified problems based on the opportunities in a particular region to promote sustainable and balanced growth, focusing on improving infrastructure, attracting investment, stimulating innovation, developing human capital, and entrepreneurial activity. The critical problem in crisis management is regional differences in economic potential and resource access. It is impossible to eliminate the differences in the constants contained by the region's body (geographical location, natural conditions, and resources); the problem of efficient use of resources (natural, human, financial, fixed, and circulating capital) is considered more substantiated.

It should be noted that in the context of military aggression against Ukraine, the factors of qualitative factors of regional development are actualized, including external migration, internal migration, changes in the demographic situation, the degree of destruction of housing stock and infrastructure, the dynamics of production volumes, prospects, and expectations. The cumulative effect of these determinants significantly impacts the development of Ukraine's regions, creating new challenges and opportunities. In particular, the participation of the central and western regions of Ukraine in mitigating the crisis resulting from the military aggression of the Russian Federation is to create favorable conditions for the relocation of businesses from those territories where hostilities are taking place. These regions received additional opportunities to attract investment and rebuild and modernize the regional one.

The beginning of crisis management at the regional level is identified as the moment when the system has lost its ability to function effectively due to facing a threat; that is when it is unable to neutralize the challenges affecting the region. Petruk I.P. notes: "The organization of management of the socio-economic system is an anti-crisis management, which cannot be accurately predicted in its cyclical development, that is, the element of crisis is always present" [22, p. 107]. In order to effectively fulfill the tasks of regional authorities and achieve strategic goals, it is expedient to develop the concept of organizational and institutional architectonics, which is an essential component of the concepts of crisis management of the regional economy.

In our opinion, the development of an effective crisis management mechanism at the regional level should be based on analyzing stakeholders.

The identified groups of regional development stakeholders have the following structure:

1. Sphere of authority/responsibility: local self-government bodies.
2. Sphere of direct influence: central authorities.
3. Sphere of indirect influence: public (territorial community, public organizations), science, business.

Based on several works on the principles of improving the system of management of socio-economic systems [29; 30], it is concluded that it is necessary to implement a model of crisis management of the region based on activation of mechanisms of joint management to ensure a synergistic effect from the activities of all stakeholders of the process without exception. Each interest group in the context of regional development has specific aspirations, which form a requirement for the power bloc to identify the critical social, economic, and environmental interests of stakeholders and develop algorithms for minimizing contradictions in setting goals for realizing the integral potential of the region based on the harmonization of aspirations. The program-target approach is an essential element of public participation represented by stakeholders of regional development in the processes of its direction through the formation of civic competence in local policy development.

Management technology is one manifestation of social technologies, which directly reflects management processes in a systematic combination of scientific knowledge, managerial needs and interests of society, goals and functions... management, opportunities and elements of managerial activity [31, p. 109]. This fact suggests an understanding of the urgent need to harmonize the implementation of the functional content of the activities of regional development stakeholders in the context of crisis management, the aggregated vision of which is presented in Table 6.

The analysis of the work of Voronkova V. G. [32] allows us to determine the essential characteristics of social management, which includes the management of regional development:

- the management process acts as a subject – a subjective relationship that involves the interaction of two subsystems – the one that manages and the one that is managed;

Table 6

**Functional filling of regional development stakeholders' activities  
in the context of crisis management**

Regional Development Stakeholders	Regional Management Processes, Procedures, Operations
Local Self-Government Bodies	Strategic planning of socio-economic development of the region based on state policy; analysis of economic, social, and environmental risks of the region; setting goals and objectives, choosing anti-crisis management tools; fixation and evaluation of the results of anti-crisis policy, formation of corrective influences; informing stakeholders of the process about the priorities, goals, and objectives of crisis management; identification of the interests of critical groups of influence
Central Authorities	Institutional and legislative support of management in the regions; Strategic planning of the country's socio-economic development
Public	Initiating, organizing, and implementing collaborative thinking processes (stellectics) in order to foster a culture of participatory management
Science	Human Capital Development; analysis and assessment of the state of the region; identification of regional development risks; development of theoretical and applied aspects of the implementation of anti-crisis policy; Generating Innovation
Business	Participation in the processes of intelligence during the development and implementation of the regional development strategy; introduction of innovations; ensuring the supply of goods and services

- acquires the character of co-management;
- the social subject purposefully influences its own social, collective, and group life, which is carried out both directly (in the forms of self-government) and through specially created institutions (the state, parties, public associations, cooperatives, enterprises, unions).



It should be noted that the authorities of the national and regional levels have the role of an impetus generator for the formation of synergistic effects based on the harmonization of interests of regional development stakeholders. At the same time, it should be noted that the system with the dominance of extractive institutions in this process will face obstacles in the form of narrow group interests of representatives of the ruling elite.

The principles of sustainable development should guide the crisis management of regional development. Balancing economic growth with environmental conservation and social justice is essential to ensure long-term prosperity and sustainability. The changing nature of crises and global interdependencies underscores the need for international cooperation in crisis management. Sharing knowledge, resources, and experiences across regions and countries can contribute to more effective crisis prevention and mitigation strategies.

## 5. Conclusions

The polysemantic nature of the term "crisis" and its duality dialectically combines the processes of significant aggravation of contradictions at different levels of socio-economic relations with the opportunities that open up, that is, with the so-called "lines of change" that form possible trajectories of events (progressive or regressive), while the implementation of some of them depends on the effectiveness of crisis management. The latter refers to a set of ways, methods, techniques, ways (tools), i.e., a mechanism for preventing or mitigating the consequences of crisis phenomena in the economy in particular and/or the country's society as a whole through the mechanisms for implementing the following components: vulnerability and risk assessment, prevention, preparedness, response, recovery.

The problem of finding sources of crisis generation and trajectories of entering the vector of development in socio-economic systems necessitates the allocation of their components, functioning at a certain level of abstraction, with the further development of the study to the analysis of their interaction and mutual conditioning. The following levels of abstraction are allocated, which can be represented in the form of a pyramid (from the base to the highest level): micro-level (enterprises, citizens), meso-level (regions, sectors of the economy), macro-level (state), mega-level (international organizations). Currently, there is a redistribution of

powers in the multi-level system of socio-economic development due to the modern nature of the genesis of crises and the mechanism of their spread. In particular, supranational structures acquire their sovereignty, alienating the objects of power from national institutions of power. Consequently, the crisis management system is formed as a variant of a systemic combination of centralization and decentralization of institutional decision-making units. Crises are a source of change in organizational processes and power structures.

The study of the factors of the crisis is essential for understanding its nature and forecasting. We consider two classifications of crisis factors, within the framework of which we distinguish: exogenous and endogenous factors (depending on the relationship of the environment of crisis generation to the economic system); objective and subjective factors (depending on the influence of the will and consciousness of a person). Objective factors are exogenous and are generated within economic, political, social, and technological processes. Subjective factors are related to the psychological and behavioral aspects of the activities of economic agents.

There is a close relationship between the institutional environment of the macro- and meso-levels and the weight of subjective factors of the crisis. As a methodological basis for identifying the underlying causes of the subjectivization of managerial decisions, the theory of neo-institutionalism has been chosen within the framework of which the allocation of inclusive and extractive institutions has been proposed. Extractive institutions are tantamount to a rent-seeking economy, removing most of society from income distribution and decision-making. Inclusive institutions are a competitive economy, a free market, and political democracy. The mechanism of influence of the subjective aspect of decision-making by representatives of the ruling elite, based on rent motivation (extractive institutions), forms a crisis of the core of the system, which spreads to the "periphery close to the core", "the center of the periphery", "the middle periphery", "the periphery distant from the core. The dominance of extractive institutions creates challenges that acquire signs of crisis when the limit of adaptive potential is crossed (homeostasis is disrupted) at bifurcation points.

The organizational and institutional architectonics of the optimal mechanism of crisis management at the regional level, adequate to exogenous and endogenous challenges, capable of ensuring the effective use

of the integrative potential of the region, endowed with adaptive properties, should be based on algorithms of joint management to ensure a synergistic effect of interaction between stakeholders in the process, which include local self-government bodies (sphere of authority/responsibility); central authorities (sphere of direct influence); public, science, business (sphere of indirect influence). The power bloc is required to identify stakeholders' critical social, economic, and environmental interests and develop algorithms for minimizing contradictions in setting goals for realizing the integral potential of the region based on the harmonization of aspirations, which is an achievable goal in systems with the dominance of inclusive institutions.

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