



## Economy and economics of disasters as a theoretical basis of economic security

### Ekonomía a ekonomika katastrof ako teoretický základ ekonomickej bezpečnosti

Jaroslav SLEPECKÝ<sup>1</sup>, Martin MAŠĽAN<sup>2</sup>

<sup>1</sup>The College of European and Regional Studies in České Budějovice

<sup>2</sup>The University of Security Management in Košice

The manuscript was received on 16. 10. 2020 and was accepted after revision for publication on 02. 12. 2020

#### Abstract:

*Economy and economics are an indispensable basis for economic security. Ensuring an adequate level of economic growth is a basic prerequisite for the functioning and development of society. It is necessary to create conditions for economic growth that enable the required performance of the economic system. Within the framework of risk management, it is always necessary to take into account factors that may negatively affect the operation and performance of the system when creating these conditions. Disasters that can have various causes and impacts on the system under study are also such factors. Examining the causes and consequences of disasters on the economies of individual countries is very important for maintaining a functioning economy, the quality of life of the population, but also security. The article deals with the definition of basic concepts and interrelationships between economics, resp. disaster economy, economic security and security as such.*

**Keywords:** *Economics, economics, security, economic security, disaster, disaster economics.*

#### Abstrakt:

*Ekonomía a ekonomika sú nepostrádateľným základom ekonomickej bezpečnosti. Zabezpečenie primeranej úrovne hospodárskeho rastu je základným predpokladom fungovania a rozvoja spoločnosti. Pre hospodársky rast je nevyhnutné vytvárať podmienky, ktoré umožňujú dosiahnutie požadovanej výkonnosti ekonomického systému. Pri tvorbe týchto podmienok je v rámci manažmentu rizík, potrebné neustále sledovať také faktory, ktoré môžu negatívne ovplyvniť činnosť a výkonnosť systému. Takými faktormi sú aj katastrofy, ktoré môžu mať rôzne príčiny a dopady na systém, ktorý je predmetom skúmania.. Skúmanie príčin a dôsledkov katastrof na hospodárstvo*



*jednotlivých zemí je veľmi dôležité pre zachovanie fungujúcej ekonomiky, kvality života obyvateľstva, ale i bezpečnosti. Článok sa zaoberá definovaním základných pojmov a vzájomnými súvislosťami medzi ekonomikou, resp. ekonomikou katastrof, ekonomickou bezpečnosťou a bezpečnosťou ako takou.*

**KLúčové slová:** *Ekonomía, ekonomika, bezpečnosť, ekonomická bezpečnosť, katastrofa, ekonomia katastrof*

### Introduction

The concept of disaster economics is a new concept in the scientific community in Slovakia. US Congressmen Emerson and Stevens are responsible for the increased awareness and interest in disaster economics around the world, when in October 31, 1995 they pointed to the need to examine the impact of disasters on the country's economy in the article "Natural Disasters: A Budget Time Bomb". In the article, they also opened the issue of the economic consequences of disasters in the US Congress.

The current state of the ongoing pandemic "COVID-19", which devastates the world economy and significantly affects the security situation of individual states, creates an unquestionable connection between the disaster economy and economic security.

The definition and subsequent use of the term disaster economics is based on the English original Economics of Disasters.

Disaster means disaster, natural or anthropogenic. However, it should be noted that in English, the Slovak term 'catastrofa' has another equivalent, Catastrophe. However, the term Catastrophe is used only in the case of the very destructive Disaster.

Based on the above analysis and after consultations with experts at home and abroad, it turned out that the use of the term disaster economics, resp. the economics of disasters in the case of theoretical research is correct both materially and professionally.

### DEFINING THE TERM DISASTER

The term "disaster" comes from Greek word. Jan Tůma explains the catastrophe by "defining" the world's insurance companies as: "a mass disaster that causes the deaths of more than twenty people will negatively affect more than a hundred people, or the damage is more than ten million dollars".

The English language recognizes two expressions that are not synonymous - catastrophes and disasters. The term catastrophes is used in the most devastating events.

The National Response Framework, which is part of the US National Security Strategy, defines a disaster as "an event that results in an extraordinary level of mass loss or severe disruption to infrastructure, the environment, the economy, morale, and state functions."

The American English Dictionary distinguishes between the terms "disasters," "catastrophe," and "calamity." Disasters is defined as "a major or sudden disaster with loss of life," catastrophe refers primarily to catastrophic endings and consequences. He refers to "calamities" as a great misfortune, which brings anxiety, sadness to individuals or more people.

The disaster has a sociological and physical dimension. Both approaches are at odds. One focuses only on the social consequences and the other includes only the physical dimensions. The authors try to push their view of the problem while ignoring the complexity of the problem.

The definition of "catastrophe" can be found in a large amount of literature, in the documents of various organizations, in which the authors express their views or opinions of the official organization. Most definitions capture only part of the problem and lack a comprehensive approach. From the many opinions on what is actually the essence of the catastrophe, which I have had the opportunity to meet at international conferences, consultations with experts, or which are listed in the literature, websites, I give only a small sample.

### DEFINITION OF DISASTER

- An unpredictable and often sudden event that causes damage, destruction and human suffering.
- Serious disruption of citizens' lives, which threatens or causes death, resp. injuries, property damage that require special mobilization and organization of resources other than those normally available (EMA, Australian emergency management glossary).
- Disasters are major accidents that cause widespread disruption to human and commercial activities. Under normal circumstances, accidents are handled within the city, region, but disasters cannot be absorbed from own resources. Most of the disasters, natural or technological (artificial), have a sudden onset with minimal possibility of elimination. Disasters can cause loss of life, injuries and long-term disability for people with disabilities. Property damage has a long-term social impact, such as loss of income, employment and lead to severe economic constraints (Ernakulam District Crisis Management Plan, Kerala, India).
- FEMA defines a natural disaster, a technological accident, or other event that results in serious property damage, death, personal injury, and consequences beyond the capabilities of local authorities and requires the involvement of federal authorities.
- A disaster is a natural or man-made event of major severity and magnitude that results in death, injury, and property damage that cannot be addressed through routine procedures and government resources (New York State Office of Mental Health).
- A situation that causes massive loss of life or economic damage (Oxfam UK International Charity).
- The Red Cross defines a catastrophe through the occurrence of hurricanes, tornadoes, storms, floods, tidal waves, earthquakes, droughts, blizzards, plagues, famines, fires, eruptions, volcanic eruptions, building collapses, accidents or other situations that cause people suffering, death and death. continue to live without help (Red Gross, USA, Florida, Tallahassee).

- Serious disruption of society, causing great human, material or environmental losses that go beyond the company's ability to cope with the consequences only with its own resources (UN DHA - United Nations Department of Humanitarian Affairs, Geneva).
- A disaster is defined as an unexpected major disaster or simply any unfortunate event. More specifically, a disaster is "an event in which timing is unexpected and the consequences are destructive." This definition includes three elements:
  - suddenness,
  - unexpectedness
  - significant destruction

A fourth element can be assigned, namely the lack of foresight and planning. Precautionary measures to protect organizations, individuals, documents, and facilities (University of Missouri) are important.

- A disaster is an event that permanently interrupts or alters the continuity of the status quo in terms of impact on human physical and mental health, culture, language, economy, and environment, creating irreparable losses and reducing faith and hope in traditional state rescue systems, ultimately consequently creates new rules (Strategic Playbook for catastrophe).

Based on the evaluation of available relevant data, a general definition of a disaster was compiled in terms of the consequences of disasters on the state economy [3]:

*Disaster is a situation where the number of victims alone or in combination with property damage is so large that the affected state, the region is unable to deal with the consequences of the disaster on its own, or the damage significantly reduces the country's future income.*

The term "catastrophe" is manipulated mainly by politicians, state officials, officials of various institutions in order to present their ideas for solving selected local or global problems. However, it should be borne in mind that the term has its own dimension for the scientific community, which is precisely identifiable and its misuse is unacceptable.

In any case, it is a frequently used term and occurs in many contexts, from the negative results of political negotiations through the names of various music groups, to the consequences of devastating floods, earthquakes, terrorist attacks, fires, etc.

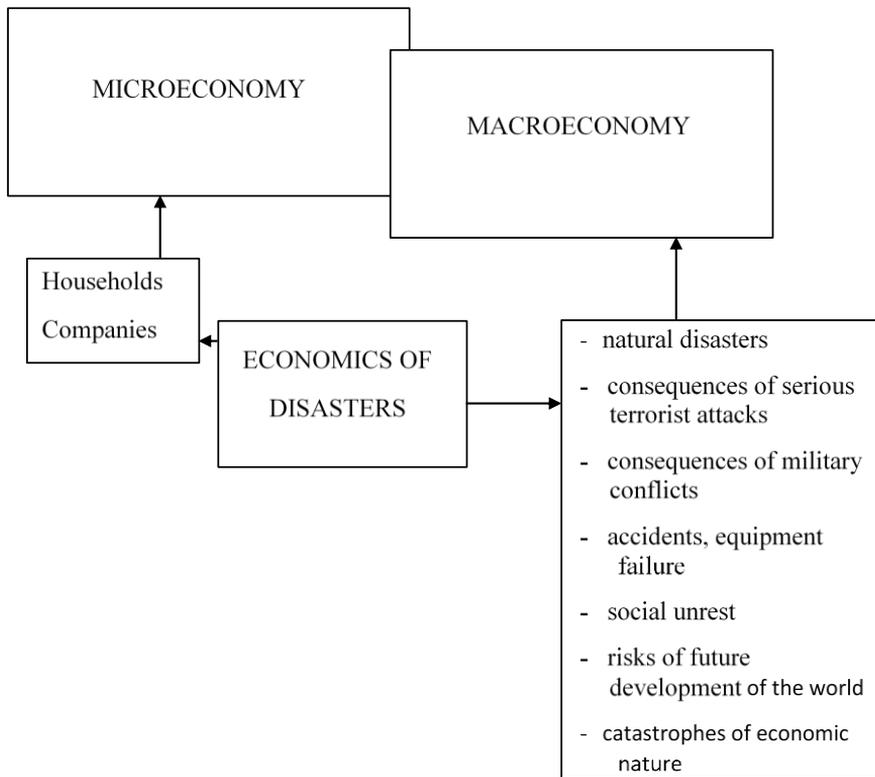
## **ECONOMY AND ECONOMICS OF DISASTERS**

The definition and subsequent use of the term disaster economics is based on the English original Economics of Disasters.

Disaster means disaster, natural or anthropogenic. However, it should be noted that in English, the Slovak term catastrophe has another equivalent, Catastrophe. However, the term Catastrophe is used only in the case of the very destructive Disaster.

Based on the above analysis and after consultations with experts at home and abroad, it turned out that the use of the term disaster economics, resp. the economics of disasters in the case of theoretical research is correct both in terms of material and professional.

Disaster economics is a narrowly specialized, specific economic discipline that uses disaster theory, mathematical modeling methods, statistical and forecasting methods to analyze the economic consequences, suggests their possible development and currently has a firm place in economic theory (Figure 1).



*Figure 1 Position of the economics of disasters*

*Source: Author*

## **ECONOMIC SECURITY**

If we want to define economic security, we must return to the theoretical foundations of security and economics, because economic security cannot be based on anything other than the scientific nature of the economy itself, taking into account its safe functioning in today's complex world. On the other hand, security sciences, activities and processes must have the economic attributes of such an activity .

Economic security can be perceived from two perspectives:

1. Safe implementation of economic processes, good knowledge of economic laws with the aspect of security. this point of view is closer to economic sciences, it is associated with adequate risk management, ensuring the minimization of threats to properly implemented economic processes.

2. Economic implementation of security activities, which means managed, predefined security with an economic aspect. This view is closer to the security sciences.

In the terminological dictionary of "crisis management", the term security is defined as "the state of a social, natural, technical and technological system or other system which, in specific internal and external conditions, enables the fulfillment of specified functions and their development in the interest of man and security". It is clear that in 2005, economic security as part of security in our conditions was not considered at all.

In the terminological dictionary of the Ministry of the Interior of the Czech Republic, the term security is defined as "*a state where the system is able to withstand known and predictable (even sudden) external and internal threats that may negatively affect individual elements (or the whole system) so as to maintain the system structure. , its stability, reliability and behavior in accordance with the target. It is thus a measure of the stability of the system and its primary and secondary adaptation [6].* To define the system to the conditions of the state, the content of security is specified in the Constitutional Act No. 110/1998 Coll. Compared to the previous version, the word "even sudden" was included in parentheses, which could cover unpredictable threats, catastrophes, such as the current COVID-19 epidemic.

From the point of view of economic security, in my opinion, security can be understood as "*any measure to prevent, protect and deal with the consequences of difficult-to-predict economic situations, such as large-scale fraud, financial crises, emergencies, disasters, etc.*"

### Conclusion

Economy and economics is a complex and interconnected system, with economic reality being one of the most complex objects of research. Disaster economics is all the more complicated because it monitors processes arising from unpredictable step changes. The current situation surrounding the Covid-19 pandemic is a shining example of this.

With its synergistic effect, economic security affects all security sectors, because it expresses the current and future state of economic power and thus the quality of life of the population.

### References

[1] EMERSON, B., STEVENS, T. 1995. Natural Disasters: A Budget Time Bomb, In: Washington Post, 31.10. 1995, str. A13, ISSN: 0740-5421.

- [2] RISTVEJ, J.: Ekonomika katastrof, konferencia Věda a krízové situácie, 8. november 2005 VŠB, Ostrava – ČR, str. 124-127, ISBN: 80-248-0944-3
- [3] SLEPECKÝ, J., DUFINEC, I., DAŇOVÁ, M.: Teoretické základy ekonomickej bezpečnosti. In.: Pána, L., Strnad, Š. a kol. Vnitropolitické a zahraničnopolitické aspekty státu, studia. České Budějovice, 2014. ISBN 8086389154
- [4] ŠIMÁK a kol: Terminologický slovník krízového riadenia, Žilina 2005, dostupné na [www.fbi.uniza](http://www.fbi.uniza)
- [5] TŮMA, J.: Katastrofy děsící 20.století. ACADEMIA Praha 2002
- [6] Terminologický slovník MV ČR z 7.června 2016

**Authors:**

<sup>1</sup>**Assoc. Prof. Jaroslav Slepecký, PhD., MBA** - The College of European and Regional Studies in České Budějovice, [jaroslav.slepecky@gmail.com](mailto:jaroslav.slepecky@gmail.com)

<sup>2</sup>**Ing. Martin Mašlan, PhD., MSc** – The University of Security Management in Košice, [martin.maslan@vsbm.sk](mailto:martin.maslan@vsbm.sk)