

Fiscal Security of the State Considering Threats of Macroeconomic Nature

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ABSTRACT

The paper focuses on the study of macroeconomic threats to fiscal security. Empirical data based on the results of strategic analysis in the field of fiscal security of Ukraine are presented. The results of threat analysis are compared separately according to the level of probability and consequences of their spread with the risk level, which is determined on the basis of an integrated combination of probability and consequences. The risk level identified the most significant threats in the field of fiscal security of Ukraine. Emphasis is placed on determining the risk thresholds for the spread of threats. A threat matrix is used and appropriate thresholds are proposed. The identified threshold levels were applied to the threat risk rating and a corresponding diagram was constructed taking into account the threat threshold levels. Based on the risk assessment of 21 macroeconomic threats in the field of fiscal security, the most significant threats were identified: the level of the shadow economy is 64.55%, the decline in production in the country is 63.52%, the reduction of the official labor market is 62.02% and labor migration, outflow labor force abroad is 66.06%.

Keywords: threats, fiscal security, probability, consequences, risk, risk analysis, risk assessment.

1. INTRODUCTION

The fiscal security of the state is one of the key components of economic and, consequently, national security, and requires a thorough strategic estimation, objective knowledge of the key challenges that cause the general level of danger and distort economic relations in society. Security competencies are formed primarily on the basis of a risk-oriented approach, assessing the threats level in the fiscal sphere, the probability of their manifestation and consequences for the fiscal system, comparing them on the appropriate threshold scale, etc.

2. RESEARCH ANALYSIS

Problems of fiscal security, in particular, and issues of economic security in general are dealt with by many scientists who develop theoretical models and form an appropriate methodological basis. At the same time, the key focus of modern security research should be the applied

results of scientific analysis, based on empirical research confirmation of hypotheses that focus on existing problems, key threats and raise awareness of both society as a whole and security actors [1].

Ulrich Beck, using the sociological theory of modern society, calls the post-industrial, namely information society, a society of risk, based on threats of different origins and resulting distribution of risks [2]. Modern reality requires a new level of top management thinking, based on adequate risk perception and its use as a component of future analysis. That is, risk is seen as a special method of cognition and a special set of ways to make management decisions

The methodological basis for solving this problem is the international standard ISO 31000: 2018, implemented as a national standard to domestic legislation in 2018 [3-5]. Based on this, the risk construct is an integral determination

of the content of the threat and estimates of its level, probability and a certain probability of occurrence of this event.

3. THE PURPOSE OF THE ARTICLE

Based on empirical data, focus on macroeconomic threats in the field of fiscal security; to carry out a component analysis of the threat according to the assessment of probability and consequences of its spread; analyze the risk level of the identified threats; identify the most significant threats to fiscal security based on defined thresholds.

4. THE MAIN MATERIAL

Any modern society needs both state support and civil society activity to raise awareness and anticipate the socio-economic development of society. Important decisions for society require scientifically sound forecasts, which are a guarantee of the expected development of subsequent processes and events in society [6].

Deepening the cognitive process on fiscal security of Ukraine, the Association of Taxpayers of Ukraine launched a cognitive process, bringing together scientists, representatives of fiscal authorities, NGOs and business, to implement the general concept of strategic analysis of fiscal security of Ukraine [7]. The obtained empirical data provide a sufficient level of knowledge about the risks of threats spread in the field of fiscal security of Ukraine.

Of the total list of identified threats in the field of fiscal security, 21 threats are classified as macroeconomic. In its content, these threats characterize the external conditions of fiscal security.

The following threat assessment is presented in Table 1, where the probability of their spread, based on the average value, was assessed taking into account the scale: low – 5; average – 10; high – 15, and consequences: insignificant consequences – 5; severe condition – 10; critical condition – 15; catastrophe – 20. That is, the highest probability is estimated as 15 points, and the consequences – 20.

By constructing the following diagram, it is possible to identify the most likely threats and those with the most significant consequences for fiscal security (Figure 1).

Thus, we can identify some threats that are most likely to spread and have the most significant consequences for fiscal security, in particular: monopolization of markets and industries, decline in production in the country, reduction of the official labor market, labor migration, outflow of labor abroad, labor relations with workers without legal registration, wages "in envelopes", "kickbacks" in business

transactions and the unavailability of cheap bank loans and replacement by alternative resources (shadow).

Table 1. Threats in the field of fiscal security of macroeconomic nature

№ p/p	Indicator	Likeliho	Conseq
1.	5.Shadow economy level	12,59	14,37
2.	9.Business is involved (due to the conditions prevailing in the state) in the shadow economic activity	11,01	13,03
3.	19.Monopolization of markets and industries	11,53	13,48
4.	20.Production decline in the country	12,04	14,36
5.	21.Decrease in the official labor market	11,84	14,18
6.	22.Labor migration, outflow of labor abroad	12,29	14,69
7.	23.Labor relations with employees without legal registration	11,55	13,68
8.	24.Raiding	11,00	13,47
9.	25.High transaction costs in the business process	10,45	12,66
10.	27.Capital outflows to other jurisdictions	10,51	12,35
11.	29. Instability of the state tax policy	10,87	12,76
12.	30.Unequal business conditions compared to those who use tax minimization schemes	10,97	12,95
13.	31.The level of legalization of shadow income	10,54	12,94
14.	32.Underestimation of economic activity results by non-fiscal cash settlements	10,93	12,75
15.	33.Salary "in envelopes"	11,55	13,49
16.	34."Kickbacks" in business transactions	11,44	13,31
17.	35.Unavailability of cheap bank loans and replacement with alternative resources (shadow)	11,46	13,41
18.	36.Complexity of administration of labor relations for business entities	10,17	12,03
19.	37. Complexity of accounting procedure for small businesses	8,49	9,60
20.	38.Easy access to shadow income legalization schemes	10,30	12,30
21.	40.Manifests of corruption in the fiscal sphere	9,41	11,51

At the same time, although such an assessment forms an idea of the most significant threats in the field of fiscal security, it still does not provide grounds for final conclusions. Risk assessment [8-10], in addition to forming an integrated value, taking into account the probability and consequences, uses the risk limits, which determines the risk level of the threat.

Further analysis was performed using IBM SPSS software. Based on the generated syntax (Figure 2), the integrated value of assessment of the threats spread in the field of fiscal security is determined and presented as a

percentage on a scale from 0 to 100%, where *tp* is the probability of threat spread, *te* is the consequences of threat spread, *TA* is risk analysis).

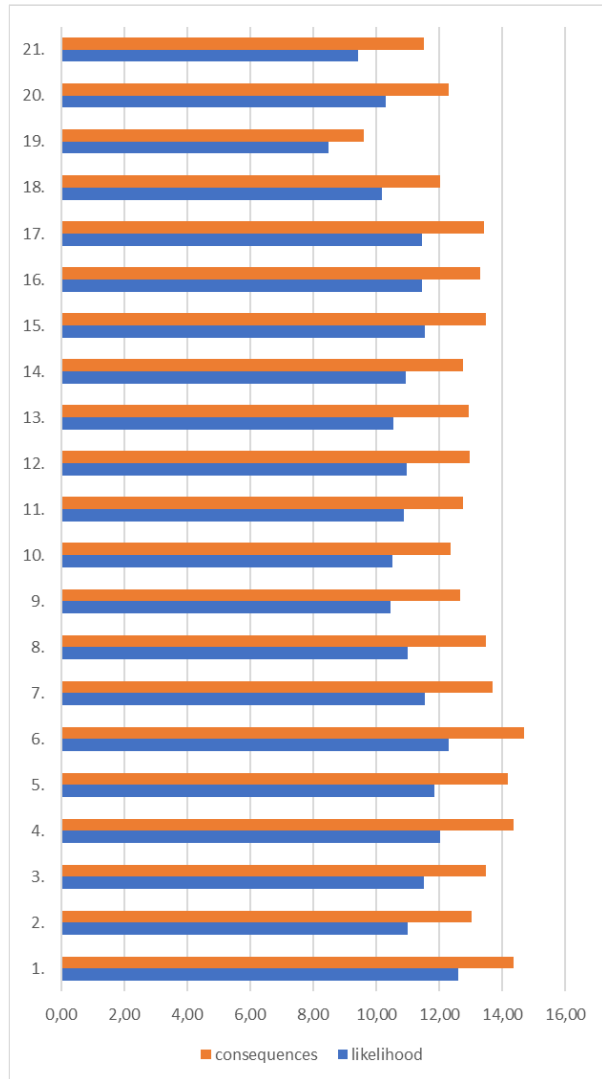


Figure 1 Rating of threat assessment on the basis of probability (likelihood) and consequences of spread

Thus, the rating of macroeconomic threats in the field of fiscal security is formed according to the risk level (Table 2, Figure 3).

At the same time, there is a need to define risk limits. For this purpose we construct a matrix of threats (Figure 4).

Thus, according to the risk level and taking into account the size limits, there are four threats (level of shadow economy, decline in production in the country, reduction of official labor market and labor migration) in the red sector (most significant threats) and 12 in the orange sector (significant threats).

```
do repeat TA = TA1 to TA21
/ P =tp1 tp2 tp3 tp4 tp5 tp6 tp7
tp8 tp9 tp10 tp11 tp12 tp13 tp14
tp15 tp16 tp17 tp18 tp19 tp20 tp21

/ N = te1 te2 te3 te4 te5 te6 te7
te8 te9 te10 te11 te12 te13 te14
te15 te16 te17 te18 te19 te20 te21.
compute TA = (P + N + P*N) / 335 * 100.
end repeat.
execute.
```

Figure 2 Syntax of risk analysis by integrated value of probability and consequences of threat spread

Table 2. Risks analysis of proliferation of threats in the field of fiscal security

INDICATORS		RISK,%
5. Shadow economy level	1.	64,55
9.Business is involved (due to the conditions prevailing in the state) in the shadow economic activity	2.	53,88
19.Monopolization of markets and industries	3.	57,73
20. Production decline in the country	4.	63,52
21.Decrease in the official labor market	5.	62,02
22.Labor migration, outflow of labor abroad	6.	66,06
23.Labor relations with employees without legal registration	7.	58,75
24.Raiding	8.	55,78
25.High transaction costs in the business process	9.	50,74
27.Capital outflows to other jurisdictions	10.	49,71
29.Instability of the state tax policy	11.	52,70
30.Unequal business conditions compared to those who use tax minimization schemes	12.	53,72
31.The level of legalization of shadow income	13.	52,05
32.Underestimation of economic activity results by non-fiscal cash settlements	14.	52,32
33.Salary "in envelopes"	15.	57,79
34."Kickbacks" in business transactions	16.	56,90
35.Unavailability of cheap bank loans and replacement with alternative resources (shadow)	17.	57,62
36.Complexity of administration of labor relations for business entities	18.	47,56
37. Complexity of accounting procedure for small businesses	19.	33,97
38.Easy access to shadow income legalization schemes	20.	48,48
40.Manifests of corruption in the fiscal sphere	21.	48,48

In the future, we use certain levels of the size limit and apply them to the results of risk analysis of threats spread in the field of fiscal security, highlighting them with the appropriate color (Figure 5).

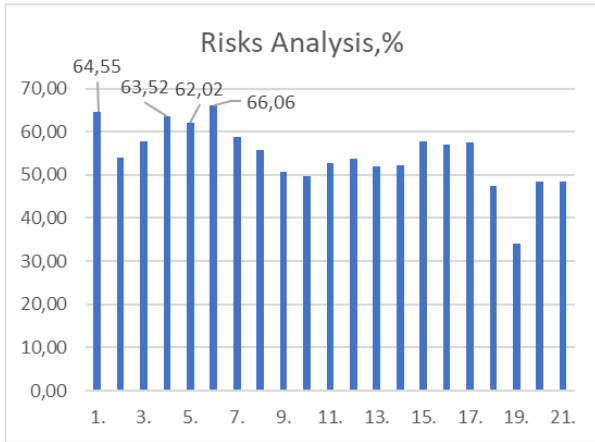


Figure 3 Threats rating in the field of fiscal security by the risk level of their spread

LIKELIHOOD THREATS	POSSIBLE CONSEQUENCES			
	Liquidation	Critical state	Severe state	Insignificant effects
high		T1 T4 T5 T6		
medium		T2 T3 T7 T8 T9 T11 T12 T13 T14 T15 T16 T17	T10 T18 T20 T21	
low			T19	

Figure 4 Threat Matrix

Using this approach, a rating of macroeconomic threats to fiscal security by risk level was obtained, taking into account the proposed risk thresholds.

The implemented methodology involves assessing the risks of the threats spread on a scale from 0% to 100% and provides for the following threshold levels:

- level of risk in the zone above 60% – red level – the most significant threats (require urgent measures to reduce the risk of their spread);

- level of risk in the area of 50 - 60% – orange level – significant threats (require control of top management);

- level of risk in the area of 40 - 50% – yellow level – threats that need attention, but not paramount;
- level of risk in the zone below 40% – green level.

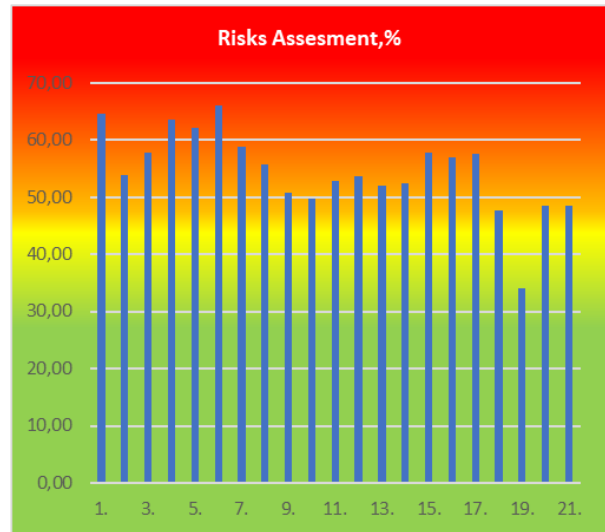


Figure 5 Risk assessment of threats in the field of fiscal security

The color palette is quite bright, varied and mostly homogeneous in the evaluation of experts:

- the most significant threats:

- the level of the shadow economy – 64.55%;*

- decline in production in the country – 63.52%;*

- reduction of the official labor market – 62.02%;*

- labor migration, outflow of labor abroad – 66.06%.*

other macroeconomic threats are just as destructive (significant) in terms of fiscal security:

- monopolization of markets and industries – 57.73%;*

- business is involved (due to the conditions prevailing in the state) in the shadow economic activity – 53.88%;*

- labor relations with employees without legal registration – 58.75%;*

- raiding – 55.78%;*

- high transaction costs in the business process – 50.74%;*

- instability of the state tax policy – 52.70%;*

- unequal conditions for doing business in comparison with those who use tax payment minimization schemes – 53.72%;*

- money laundering – 52.05%;*

understatement of economic activity results through non-fiscal cash settlements – 52.32%;

salary "in envelopes" – 57.79%;

kickbacks in business transactions – 56.90%;

unavailability of cheap bank loans and replacement by alternative resources (shadow) – 57.62%.

5. CONCLUSIONS

Thus, an analysis of macroeconomic threats in the field of fiscal security of Ukraine was conducted. Based on the risk assessment of 21 macroeconomic threats in the field of fiscal security, the most significant threats were identified, given the current level of capacity and vulnerability: the level of the shadow economy – 64.55%, decline in production – 63.52%, reduction of the official labor market – 62, 02% and labor migration, outflow of labor abroad – 66.06%.

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