2(13)2024

DOI: 10.26565/2786-4995-2024-2-04

UDC 347.44

Oriekhova Kateryna

PhD in Economics, Associate Professor,

Associate Professor of the Department of Banking Business and Financial Technologies V. N. Karazin Kharkiv National University

4 Svobody Square, Kharkiv, 61022, Ukraine

e-mail: <u>oriekhova@karazin.ua</u> ORCID: 0000-0003-0214-2750

Gayda Pavel

PhD (in Military Science),

Associate Professor of Military Training Department, Senior Researcher

Sumy State University

2, Rymskogo-Korsakova st., Sumy, 40007, Ukraine

e-mail: info@kvp.sumdu.edu.ua

## Program to ensure financial security of enterprises defense industrial complex

**Abstract**. Ukraine has a window of opportunity to restore the state of its defence industry on a qualitatively new basis, to provide the Armed Forces with high-tech weapons and technologies in accordance with NATO requirements. This is possible due to: the scale of Western partners' supply of modern high-tech weapons; establishing bilateral partnerships with NATO countries, the United States, the United Kingdom and individual European countries to ensure effective technology transfer; the interest of foreign investors in establishing joint ventures with Ukraine to produce high-tech weapons and military equipment; access to modern defence technologies; training of military leadership personnel in accordance with NATO requirements, gaining unique experience by the military in accordance with NATO standards.

The subject of research in the article is theoretical and methodological approaches to the formation of a programme for ensuring the financial security of enterprises.

The article is aimed at developing a scientific and methodological approach to the formation of a program for ensuring the financial security of enterprises of the military-industrial complex.

The article uses a set of methods of scientific cognition that ensures the conceptual unity of the study. The methodological basis is the resource and functional approaches to the study of economic processes and phenomena, as well as the fundamental provisions of the theory of finance and probability theory and mathematical statistics.

The method of adaptive forecasting is used to develop a scientific and methodological approach to the formation of a programme for ensuring the financial security of enterprises of the defence industry.

The following results were obtained. The following **results are** obtained: The major threats of the external environment that may negatively affect the implementation of the programme for ensuring the financial security of enterprises in the future include: the risk of reducing the number of skilled workers, the risk of reduced demand for products, the risk of reducing the competitive position of enterprises in the domestic and foreign markets, the risk of a high level of tax burden.

**Keywords:** financial security, financial risk, preventive programme, risk protection programme, recovery and development programme, crisis management programme

JEL Classification: M 21, M 29, M 41, M 49

Formulas: 1, fig.: 0, tabl.: 7, bibl.: 20.

For citation: Oriekhova K., Gayda P. Program to ensure financial security of enterprises defense industrial complex. Financial and Credit Systems: Prospects for Development. №2(13)2024. P. 33-45. DOI: <a href="https://doi.org/10.26565/2786-4995-2024-2-04">https://doi.org/10.26565/2786-4995-2024-2-04</a>

**Introduction.** In Ukraine, the defence industry is defined as a set of industries, enterprises, research organisations, and design bureaus designed to carry out research, development, production and supply of weapons, military and special equipment that ensure the military and national security of the country. The main components of the structure of the defence industry of Ukraine are: central executive authorities that formulate and implement defence and industrial policy; state-owned and private defence companies.

The largest entities in the defence industry of Ukraine are the Armed Forces of Ukraine and defence enterprises and organisations. The outbreak of Russia's large-scale aggression has led to problems with equipping the Armed Forces of Ukraine with modern weapons and military equipment to defend its territory, insufficient supply of the Armed Forces with key high-tech models, a shortage of ammunition, and insufficient budgetary funding for defence.

Ukraine is currently facing a window of opportunity to rebuild its defence industry on a qualitatively new basis and to provide the Armed Forces with high-tech weapons and technologies in line with NATO requirements. This is possible due to: the scale of Western partners' supply of modern high-tech weapons; establishing bilateral partnerships with NATO countries, the United States, the United Kingdom and individual European countries to ensure effective technology transfer; the interest of foreign investors in establishing joint ventures with Ukraine to produce high-tech weapons and military equipment; access to modern defence technologies; fifth, training of military leadership personnel in accordance with NATO requirements, and gaining unique experience by the military in accordance with NATO standards.

The use of these opportunities will help accelerate the innovative development of the defence industry in line with the best international practices, create a new institutional framework for the defence industry, increase the production/repair of weapons and military equipment to meet the needs of the Ukrainian armed forces, and establish joint ventures in Ukraine for the licensed production of new weapons and equipment for the Ukrainian armed forces.

Technology transfer is becoming the basis for the creation of a high-tech military industry as an important component of the national economy, in which science, engineering, information technology, metallurgy and other sectors of the national economy are closely interconnected.

Analysis and statement of the research problem. Ukrainian scholars pay considerable attention to the problems of ensuring financial security of enterprises: G. M. Azarenkova, T. V. Merkulova, T. V. Momot, L.V. Nechyporuk, V. Prokopenko, B. Pshyk, B. Samorodova, O. Stashchuk, I. Shkolnik, A. Poltorak, O. Tereshenko.

Well-known foreign scientists are also searching for effective tools to ensure the financial security of enterprises: Eugene F. Brigham, James C. Van Horne, Jean-Charles Rochet, and E. Helfert.

The subject of research in the article is theoretical and methodological approaches to the formation of a programme for ensuring the financial security of enterprises.

The purpose of the article is developing a scientific and methodological approach to the formation of a program for ensuring the financial security of enterprises of the military-industrial complex.

The article uses a set of methods of scientific cognition that ensures the conceptual unity of the study. The methodological basis is the resource and functional approaches to the study of economic processes and phenomena, as well as the fundamental provisions of the theory of finance and probability theory and mathematical statistics.

To develop a scientific and methodological approach to the formation of a programme for ensuring the financial security of enterprises of the defence industry, the article uses the method of adaptive forecasting.

The information base of the study *is the* annual financial statements of the enterprises of the defence industry of Ukraine; scientific works of Ukrainian and foreign scholars on the issues of this study.

**Results of a research study.** A reliable and adequate forecast is an effective tool that helps to respond to changes in a timely manner and prevent undesirable outcomes, which will help to improve the efficiency of crisis management at enterprises.

Forecasting the use of the anti-crisis programme at enterprises in the future is carried out taking into account the level of risk of failure to implement the anti-crisis programme in the future and the overall indicator of the enterprise's "viability" depending on the chosen anti-crisis programme.

Important parameters of the enterprise's activity, which can be used to assess the overall level of viability of the enterprise, are: production volumes, income, product prices, profit, cost, equity and borrowed capital, capital turnover, formed reserves, insurance reserves, accounts payable and receivable, cash availability, level of tax payments, labour productivity, state of material and technical support, internal standards of use of economic resources [7; 9].

The ratios of some of the above parameters represent various indicators of the "viability" of enterprises, including indicators of profitability, solvency, business activity, efficiency, and financial security. The first stage of the methodological approach to forecasting the use of an anti-crisis programme at enterprises is to determine the coefficient of "viability" of an enterprise depending on the chosen anti-crisis programme.

The author proposes to determine the overall indicator of "viability" of an enterprise by calculating various components in the context of a specific anti-crisis programme.

The significance of the components of "viability" depending on the chosen anti-crisis programme at Ukrainian enterprises is presented in table 1.

The high level of significance of the indicator is 1, the medium level of significance -2, and the low level of significance -3.

If the company's management decides to conduct a preventive anti-crisis or risk protection programme based on the diagnostics, then when calculating the overall indicator of the company's "viability", the following indicators should be determined, first of all: profitability indicators; business activity indicators; competitiveness indicators; indicators that allow assessing the company's position in the securities market; financial stability indicators.

This is because, in the absence of a crisis or a low probability of its occurrence, an enterprise is usually characterised by high internal potential, a sufficient level of financial stability, efficient use of existing production facilities and increased production volumes.

Table 1. Significance of the parameters of ensuring the financial security of Ukrainian enterprises with regard to the

selected programme

7 8		Parameters for ensuring financial security						
Financial security programme	Crisis stage	Property status, financial independence	Liquidity and solvency	Business activity	Profitability	Financial sustainability	Market position	Financial management
Prevention programme	There is no crisis	2	2	1	1	2	1	1
Risk protection programme	Crisis is possible	2	2	1	1	1	1	2
Recovery and development programme	Crisis is present (marginal crisis level)	1	1	2	1	1	2	2
Crisis management programme	Crisis is present (catastrophic crisis level)	1	1	3	2	2	3	3

Source: author's development

The company's competitiveness is high. An effective pricing policy makes it possible to increase sales volumes, reduce production costs, generate high profits, and build up the necessary reserves and funds. The market price of corporate rights is generally rising, and capital investment has a quick return.

If management decides to implement a recovery and development programme or a programme to overcome crisis phenomena, it is advisable to calculate the economic efficiency of the programme by considering liquidity and solvency, financial stability, property status and profitability. This is because, in the presence of a crisis, an enterprise usually has low internal potential, low solvency, low labour productivity, and exhausted reserves.

In a protracted crisis, the company does not comply with internal standards for the use of economic resources, is characterised by a large share of borrowed funds, a general tendency to increase debt, overdue accounts payable and receivable, low equity, late payment of tax payments, expired licences, and outstanding loans. In order to calculate the overall viability indicator for a particular anti-crisis programme, it is necessary to normalise the indicators of the components of the company's viability, determine the weight of each component according to its importance, and then calculate the overall indicator (similar to the calculation of the integrated performance indicator of the financial security programme):

$$K_{life\ activity} = \sum_{i=1}^{n} w_i * k_i^2, \tag{1}$$

where  $K_{life\ activity}$  – is the overall viability score;

 $w_i$  – Fishburne coefficient;

 $k_i$  – normalised viability ratio.

The second stage of the methodological approach to forecasting the effectiveness of the financial security programme at enterprises is to determine the risk of its failure in the future, which includes the risks of negative impact of the internal and external environment.

One of the most effective methods of risk assessment at enterprises is the method of expert assessments. It makes it possible to assess informal situations when it is impossible to access internal non-public information of enterprises.

The purpose of the expert assessment is to identify the most significant risks that reduce the possibility of implementing the adopted financial security programme in the future. Anonymous questionnaires are used to obtain expert opinions, which increases the objectivity of the answers received. Risks of negative impact of the external environment are determined taking into account expectations based on statistical observations of the State Statistics Service of Ukraine.

External expectations include: change (increase/decrease) in production volumes; change (increase/decrease) in the number of employees, outflow of skilled personnel; change in selling prices (increase/decrease) for products; change (increase/decrease) in demand for industrial products of enterprises; change in production capacities (sufficiency/insufficiency); change in the volume (increase/decrease) of capital investments; change (increase/decrease) in the competitive position of enterprises; change (increase/decrease) in innovation activity, development of technology, etc. The list of the above expectations can be expanded depending on the statistical information available to analysts. If external expectations are related to a positive change in various factors influencing the implementation of the enterprise's financial security programme in the future, they can be regarded as opportunities of the external environment. If external expectations are associated with a negative change in the factors of influence of the external environment on the implementation of the programme of ensuring the financial security of the enterprise, they can be considered as threats of the external environment.

A description of the identification of risks of environmental impact for forecasting the use of the financial security programme at enterprises in the future is presented in table 2.

Table 2. Risks of the external environment impact on forecasting the use of the financial security programme at Ukrainian enterprises in the future

Risks	Description of the risk definition and description of the situation			
The risk of a decrease in production volumes	It is necessary to assess the change in production volumes at enterprises. Characteristics of the situation: expectations of production growth.			
The risk of a reduction in the number of employees, outflow of qualified personnel	It is necessary to assess the change in the number of employees at enterprises. Characteristics of the situation: expectations of a decrease in the number of employees at enterprises.			
Risk of decrease in selling prices for products	It is necessary to assess changes in selling prices for products. Characteristics of the situation: expectations of an increase in selling prices for the products of enterprises.			
The risk of a decline in demand for industrial products	It is necessary to assess the change in demand for the products of enterprises. Situation description: the volume of foreign orders for the production of goods has decreased, the value of current demand and export demand for the products of enterprises is below the norm.			
The risk of a decrease in the volume of capital investments	It is necessary to forecast changes in the volume of capital investment at enterprises. Situation description: there is an upward trend in capital investment at enterprises.			
The risk of a decline in the competitive position of enterprises	Changes in the competitive position of enterprises should be assessed. Description of the situation: the competitive position of enterprises has deteriorated in the foreign and domestic markets, and the situation is expected to deteriorate in the future.			
The risk of a decline in innovation activity and technology development	It is necessary to assess changes in innovation activity and technology development at enterprises. Situation description: expectations of increased innovation activity, introduction of new technological processes at enterprises (with innovation activity being financed mainly at the expense of enterprises' own funds).			
High tax burden risk	It is necessary to analyse the level of tax burden on enterprises. Description of the situation: expectations of an increase in the tax burden on enterprises, difficulties in doing business in Ukraine.			
Risk of insufficient infrastructure development	It is necessary to assess the level of infrastructure development in the region. Current situation: The infrastructure is at a satisfactory level, but needs to be developed.			

Source: author's development

The risk of negative impact of the internal environment on the implementation of the anticrisis programme in the future should be assessed in the following areas: assessment of interest in the implementation of the anti-crisis programme; assessment of the company's adaptation to changes (provided for in the anti-crisis programme); assessment of the time available for the implementation of the planned anti-crisis measures; assessment of the availability of qualified personnel; assessment of the direction of changes; assessment of changes in the level of innovation; analysis of changes in the level of capital

If internal expectations are associated with a positive change in various factors influencing the implementation of the enterprise's anti-crisis programme in the future, they can be regarded as strengths of the internal environment of the enterprise. If internal expectations are associated with a negative change in the factors of influence of the internal environment on the implementation of the company's anti-crisis programme, they can be considered as weaknesses of the internal environment of the company. Weaknesses of the internal environment and threats of the external environment together represent potential threats to Ukrainian enterprises regarding the failure to implement the anti-crisis programme in the future.

A description of the identification of risks of the internal environment for forecasting the use of the financial security programme at Ukrainian enterprises in the future is presented in table 3.

The risk of failure to implement the anti-crisis programme in the future includes a list of risks of influence of the external and internal environment of the enterprise. The closer the above risk is to 1, the better the company's anti-crisis programme will be implemented in the future, the

closer it is to 0, the greater the likelihood of failure to implement the company's anti-crisis programme in the future.

Table 3. Risks of the internal environment influence on forecasting the use of financial security programmes at

Ukrainian enterprises in the future

Risk	Description of the risk definition		
Risk of lack of interest in the	Enterprises that plan to develop in the future should be highly		
implementation of the anti-crisis	interested in making changes and implementing the adopted anti-		
programme	crisis programme		
The risk of slow adaptation of the	Taking into account the size of the studied enterprises and the		
enterprise to the implementation of the	selected AP, the speed of the enterprise's adaptation to the		
adopted changes	implementation of changes cannot be high (medium or low)		
Risk of time pressure	It is necessary to forecast sufficient time to resolve the problematic issues envisaged by the anti-crisis programme		
	It is necessary to analyse the outflow of highly skilled personnel, the		
Risk of shortage of qualified personnel	structure of personnel by education level and age, and assess the level		
Kisk of shortage of quantied personner	of labour productivity		
The risk of inconsistency of the change	It is necessary to assess the degree of compliance of the measures		
vector with the chosen anti-crisis	taken and changes at the enterprise with the chosen anti-crisis		
programme of the enterprise	programme		
Risk of changes in the level of innovation	It is necessary to analyse whether the company is implementing		
development	innovations, updating technological processes, and establishing a		
development	quality and product certification system		
Risk of changes in the level of investment	It is necessary to assess whether the company is experiencing an		
	increase in capital investment		
The risk of insufficient development of	It is necessary to analyse how well developed the production and		
industrial and social infrastructure	social infrastructure is at the enterprise		
Risk of insufficient internal funding	It is necessary to assess the availability of profit, equity, trace the		
sources	trend in the degree of equity provision, assess how dependent the		
	company is on external sources of financing		
Risk of insufficient provision of fixed	It is necessary to assess the sufficiency of fixed production assets for		
assets	production		

Source: author's development

Table 4 assesses the risk of negative impact of the external and internal environments in order to predict the use of the financial security programme at enterprises.

Risks marked with a "+" sign mean a low risk or insignificant impact on the implementation of the adopted anti-crisis programme in the future. Risks marked with a "-" sign imply a moderate, significant and unacceptable impact and increase the risk of failure to implement the adopted anti-crisis programme.

The assessment of risks of negative impact of the external environment was carried out by experts based on official data of the State Statistics Service of Ukraine and research papers [1; 2; 3; 4; 6; 8; 10; 11]. It is recommended to identify the following types of risks at an enterprise: small; insignificant; moderate; significant; unacceptable. The above typification of risks is the basis of the methodology for calculating risk levels proposed by scientist B. I. Pshyk [5].

According to table 5, a low risk corresponds to a value of 0.05, a low risk -0.04, a moderate risk -0.03, a significant risk -0.02, and an unacceptable risk -0.01.

The major threats to the external environment that may adversely affect the implementation of the programme to ensure the financial security of enterprises in the future include: the risk of a decrease in the number of skilled workers, the risk of a decrease in demand for products, the risk of a decrease in the competitive position of enterprises in the domestic and foreign markets, and the risk of a high tax burden.

The opportunities in the external environment that may have a positive impact on the implementation of the anti-crisis programme at enterprises in the future include expectations of production growth, an increase in selling prices for enterprises' products, a rise in capital investment, and an increase in innovation activity.

Table 4. Results of assessing the impact of external and internal environment risks for forecasting the use of financial security programmes at the enterprises of the defence industry of Ukraine

security programmes at the enterpri	ses oj ine dejence in	austry of Okraine			
Enterprise	1	2	3	4	
	Enterprise N <u>e</u>	Enterprise Ne	Enterprise Ne	Enterprise Nº 4	
	. se	Se	še.		
	oris	oris	oris	oris	
	erţ	erţ	erţ	luə	
D' 1	3nt	3nt	3nt	Ent	
Risks	I	I	1	Д	
	Enviro	onmental risks			
The risk of reduced production		Little-	~	~	
volumes	Small+	significant +	Small+	Small+	
The risk of a reduction in the		Significant 1			
number of employees, outflow of	Moderate	Moderate	Moderate	Moderate	
	Moderate	Moderate	Moderate	Wioderate	
qualified personnel			NT / 'C' /	T ****1	
Risk of a decrease in selling prices	Small+	Not significant +	Not significant	Little-	
for products			+	significant +	
The risk of a decline in demand	Significant	Significant	Significant	Significant	
for industrial products	Digilificant	Significant	Digilificant	Digililicant	
Risk of insufficient production	Small+	Not significant	Small+	Small+	
capacity	Sman+	Not significant +	Sman+	Sman+	
Risk of a reduction in capital				~	
investment	Small+	Not significant +	Small+	Small+	
The risk of a decline in the					
competitive position of enterprises	Significant	Significant	Significant	Significant	
Risk of a decline in innovation	NT	NT	Not significant	Little-	
activity and technology	Not significant +	Not significant +	+	significant +	
development			:		
Risk of a high tax burden	Significant	Unpre-	Significant	Significant	
	)	empty	)	)	
Risk of insufficient infrastructure	Little-	Little-	Little-	Little-	
development	significant +	significant +	significant +	significant +	
Risks from the internal					
environment					
Risk of lack of interest in					
implementing the anti-crisis	Small+.	Small+.	Small+.	Small+.	
programme	Silidii i	Silidii i	Siliuli 1.	Silaii i	
The risk of slow adaptation of the					
	Moderate	Significant	Moderate	Significant	
enterprise to the changes				_	
The risk of not having enough	Moderate	Significant	Moderate	Significant	
time		~-6			
Risk of a shortage of qualified	Moderate	Significant	Moderate	Significant	
personnel	Moderate	Diginiteunt	Moderate	Diginiteunt	
Risk of inconsistency of the					
change vector with the chosen	Little-	Little-	Little-	Little-	
anti-crisis programme of the	significant +	significant +	significant +	significant +	
enterprise		S			
Risk of changes in the level of					
innovation development	Significant	Significant	Significant	Significant	
Risk of changes in the level of					
	Significant	Significant	Significant	Significant	
investment		T 1441	To all or iC'		
Risk of insufficient infrastructure	Small+	Little-	Insignificant +	Moderate	
development		significant +	+		
Risk of insufficient internal	Little-	Unpreventable.	Significant	Significant	
funding sources	significant +	quiet -	Significant	Diginneant	
Risk of insufficient provision with	Little-	Moderate	Moderate	Unaggentable	
fixed assets	significant +	iviouerate	Moderate	Unacceptable	
1	~				

Source: author's development

Table 5. Determining the risk of failure to implement the financial security programme at the enterprises of the defence industry of Ukraine

industry of Ukraine					
Risk	Enterprise Nº 1	Enterprise Nº 2	Enterprise Nº 3	Enterprise № 4	
Environmental risks					
The risk of a decrease in production volumes	+0,05	+ 0,04	+ 0,05	+ 0,05	
The risk of a reduction in the number of employees and staff outflow	+ 0,03	+ 0,03	+ 0,03	+ 0,03	
Risk of a decrease in selling prices for products	+ 0,05	+ 0,04	+ 0,04	+ 0,04	
The risk of a decline in demand for industrial products	+ 0,02	+ 0,02	+ 0,02	+ 0,02	
Risk of insufficient production capacity	+ 0,05	+ 0,04	+ 0,05	+ 0,05	
Risk of a reduction in capital investment	+ 0,05	+ 0,04	+ 0,05	+ 0,05	
The risk of a decline in the competitive position of enterprises	+ 0,02	+ 0,02	+ 0,02	+ 0,02	
Risk of a decline in innovation activity and technology development	+ 0,04	+ 0,04	+ 0,04	+ 0,04	
Risk of a high tax burden	+ 0,02	+ 0,01	+ 0,02	+ 0,02	
Risk of insufficient infrastructure development		+ 0,04	+ 0,04	+ 0,04	
General risk of environmental impact	+ 0,37	+ 0,32	+ 0,36	+ 0,36	
Risks from the internal environment of the internal enviro	onment				
Risk of lack of interest in implementing the anti-crisis programme	+ 0,05	+ 0,05	+ 0,05	+ 0,05	
The risk of slow adaptation of the enterprise to the changes	+ 0,03	+ 0,02	+ 0,03	+ 0,02	
The risk of not having enough time	+ 0,03	+ 0,02	+ 0,03	+ 0,02	
Risk of a shortage of qualified personnel	+ 0,03	+ 0,02	+ 0,03	+ 0,02	
Risk of inconsistency of the change vector with the chosen anti-crisis programme of the enterprise	+ 0,04	+ 0,04	+ 0,04	+ 0,04	
Risk of changes in the level of innovation development	+ 0,02	+ 0,02	+ 0,02	+ 0,02	
Risk of changes in the level of investment	+ 0,02	+ 0,02	+ 0,02	+ 0,02	
Risk of insufficient development of industrial and social infrastructure		+ 0,04	+ 0,04	+ 0,03	
Risk of insufficient internal funding sources	+ 0,04	+ 0,01	+ 0,02	+ 0,02	
Risk of insufficient provision with fixed assets	+ 0,04	+ 0,03	+ 0,03	+ 0,01	
General risk of exposure to the internal environment		+ 0,27	+ 0,31	+ 0,25	
			•		

Source: compiled on the basis of financial statements of enterprises

The weaknesses of the internal environment that may increase the likelihood of failure of the anti-crisis programme at Ukrainian enterprises include: low level of implementation of innovative developments at enterprises, reduced capital investment, insufficient time to implement the planned anti-crisis measures, a tendency to increase staff turnover, and reduced employee productivity.

The strengths of the internal environment that may positively influence the use of the selected anti-crisis programmes at Ukrainian enterprises in the future include a high level of interest in anti-crisis changes, compliance of the measures taken with the selected anti-crisis programme, and a developed social and production infrastructure.

Weaknesses in the internal environment and threats from the external environment together represent potential threats to Ukrainian enterprises in terms of failure to implement the anti-crisis programme in the future. The procedure for calculating the general indicator of forecasting the use of the financial security programme at enterprises is presented in table 6.

According to table 6, the general indicator of forecasting the use of the financial security programme at enterprises is calculated by multiplying the general indicator of viability  $(K_{prevention}, K_{risk}, K_{development}, K_{crisis})$  by the risk factor of failure to implement the anti-crisis programme  $(P_{failure\ to\ implement\ ACP})$  of the enterprise.

The closer to one the value of the general indicator of forecasting the use of the anti-crisis programme at enterprises approaches, the more effectively the anti-crisis programme will be

implemented in the future. The closer to 0 the value of the general indicator of forecasting the use of the financial security programme at enterprises approaches, the less likely it is that the adopted anti-crisis programme will be implemented effectively, which requires a review of the situation and the adoption of another anti-crisis programme.

For example, if a company has adopted a preventive anti-crisis programme and then conducted a forecast and determined that the overall forecast indicator for the use of the anti-crisis programme to ensure financial security is close to 0, then it is necessary to use a risk protection programme rather than a preventive anti-crisis programme.

If the company has adopted a risk protection programme and then conducted a forecast and determined that the overall forecast indicator for the use of the financial security programme is close to 0, then the recovery and development programme should be used.

Table 6. The procedure for calculating the general indicator of forecasting the use of the financial security programme

at enterprises

emerprises					
Application type	Components of "viability" in the context of the programme	Calculation of the general indicator of forecasting the use of the financial security programme $(K_{forecast\ on\ using\ ACP})$			
Prevention programme	Profitability, business activity, position in the securities market, competitiveness	$K_{forecast\ prevention} = K_{prevention} \ * P_{failure\ to\ implement\ ACP}$			
Risk protection programme	Profitability, business activity competitiveness, financial stability	$K_{forecast\ risk} = K_{risk} * P_{failure\ to\ implement\ ACP}$			
Recovery and development programme	Liquidity and solvency, financial stability, profitability, business activity	$K_{forecast\ development} = K_{development} * P_{failure\ to\ implement\ ACP}$			
Programme for overcoming the crisis	Liquidity and solvency, property status	$K_{forecast\ crisis} = K_{crisis} * P_{failure\ to\ implement\ ACP}$			

Source: author's development

If the company has adopted a recovery and development programme and then conducted a forecast and determined that the overall forecast indicator for the use of the financial security programme is close to 0, then the bankruptcy recovery programme should be used.

If the company has adopted a crisis management programme and, after the forecasting exercise, it is determined that the overall forecasting indicator for the use of the financial security programme is close to 0, it is necessary to urgently review the existing crisis management programme in order to take the most radical and effective measures to prevent the company's bankruptcy, and to consider the option of liquidating the company as one of the possible options.

The results of calculating the general indicator of forecasting the use of the financial security programme at enterprises are presented in table 7.

At enterprise  $N_2$  1, it is advisable to use the selected risk protection programme with an emphasis on financial risk insurance, sale of surplus or unused assets, saving all types of resources, saving current costs and optimising them, maximising the internal capabilities of the enterprise, and carrying out preventive restructuring.

Table 7. Results of calculating the general indicator of forecasting the use of the financial security programme at the

enterprises of the defence industry of Ukraine

industry of Okraine						
	Enterprise	The value of the indicator				
	Enterprise № 1	0,29				
	Enterprise № 2	0,03				
	Enterprise № 3	0,08				
	Enterprise № 4	0.16				

Source: compiled on the basis of financial statements of enterprises

The value of the indicator of forecasting the use of the financial security programme at enterprise  $\mathbb{N}$  2 is closest to 0. This means that this enterprise needs to take effective and radical anti-crisis measures to implement a programme to overcome the crisis. The researched enterprise should, first of all, carry out rehabilitation restructuring, liquidation of the portfolio of short-term financial investments, sale of highly liquid instruments of the portfolio of long-term financial investments, refinancing and restructuring of debt, sale of production facilities, excess inventories, and inventory items.

At enterprise № 3, the selected recovery and development programme should be completely revised and significant adjustments made to increase sales, accelerate capital turnover, strengthen internal control, optimise business processes, restore solvency, abandon inefficient investment projects, save resources, raise additional capital, and reduce the maturity of loans granted by the enterprise.

At enterprise No 4, the chosen programme for overcoming the crisis should be reviewed and adjustments made to raise additional capital, ensure maximum prepayment for the enterprise's products, restructure, liquidate the portfolio of short-term investments, sell highly liquid instruments of the portfolio of long-term investments, collect receivables at a discount, sell unused assets, excess inventory, and lease production assets.

**Conclusion**. The application of the recommended methodological approach to forecasting the use of the financial security programme is valuable for enterprises, as it allows predicting the use of the programme based on past trends in the economic development of the enterprise (the already selected programme) and possible potential threats in the future (risks of the external and internal environment).

#### References

- 1. Hrytsenko A. A. (2022. Issue 1. pp. 39-43). Strategic planning of foreign policy as a component of the national security system. *Politikus*. Retrieved from http://nbuv.gov.ua/UJRN/polit\_2022\_1\_8
- 2. Hrytsenko O. A., Nechyporuk L. V., Zelenska K. S., Svyrydenkov K. P. (2022. № 4. pp. 20-43). The latest trends in business consulting. *Economic theory and law*. Retrieved from http://nbuv.gov.ua/UJRN/Vnyua\_etp\_2022\_4\_4
- 3. Kolomiets G. M., Melentsova O. V., Cherednychenko A. P. (2022. № 15-16. pp. 22-28). Crisis marketing is an imperative for business recovery. *Investments: practice and experience*. [In Ukrainian].
- 4. Nechyporuk L. V. (2022. № 2. pp. 122-125). Consulting on optimization of insurance coverage. *Economic theory and law*. Retrieved from http://nbuv.gov.ua/UJRN/Vnyua\_etp\_2022\_2\_11. [In Ukrainian].
- 5. Pshyk B. I. (2022. № 10). Financial Self-Sufficiency of Territorial Communities in War: New Challenges and Ways to Overcome Them. *Effective economy*. Retrieved from http://nbuv.gov.ua/UJRN/efek\_2022\_10\_4. [In Ukrainian].
- 6. Sobolev V. M., Soboleva M. V. (2022. № 1. pp. 6-13). Institutional obstacles to investment and innovation development of a firm in a clan-oligarchic economic system. *Business Inform*. Retrieved from http://nbuv.gov.ua/UJRN/binf\_2022\_1\_2 (accessed January 28, 2024). [In Ukrainian].
- 7. Alsayah A. (2022. Volume 20, Issue #1. pp. 501-513). Strategic alignment and its impact on creating an organization's reputation and image. *Problems and Perspectives in Management*. Retrieved from http://dx.doi.org/10.21511/ppm.20(1).2022.40.
- 8. Hariyani E., Aswar Kh., Wiguna M., Ermawati E., Anisma Y. (2022. Volume 19, Issue #2. pp. 230-237). Factors influencing financial statement disclosure: Empirical evidence from Indonesia. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(2).2022.20
- 9. Hassan H., Sharawi M. Al. (2022. Volume 19, Issue #2. pp. 81-94). The impact of ownership structure on external audit quality: A comparative study between Egypt and Saudi Arabia. Investment *Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(2).2022.07
- 10. Iyoha A.-O. Imas, Ohiokha G., Umoru D., Akhor S. O., Igele G. A. (2022. Volume 19, Issue #3. pp. 322-334). Target capital structure for managerial decision making: Dynamics and determinants. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(3).2022.27
- 11. Koziuk V. (2022. Volume 19, Issue #1. pp. 168-185). What do cross-country Bitcoin holdings tell us? Monetary and institutional discontent vs financial development. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(1).2022.13
- 12. Sari M. P., Budiarto A., Raharja S., Utaminingsih N. S., Risanda A. (2022. Volume 19, Issue #3. pp. 267-277). The determinant of transfer pricing in Indonesian multinational companies: Moderation effect of tax expenses. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(3).2022.22
- 13. Shkolnyk I., Frolov S., Orlov V., Datsenko V., Kozmenko Y. (2022. Volume 19, Issue #3. P. 119-138). The impact of financial digitalization on ensuring the economic security of a country at war: New measurement vectors. *Investment Management and Financial Innovations*. Retrieved from http://dx.URL.org/10.21511/imfi.19(3).2022.11

- 14. Silvera D. L., Hizazi A., Hidayat M. S., Rahayu S. (2022. Volume 19, Issue #1. pp. 274-286). Financial constraints and corporate governance as moderating variables for the determinants of tax avoidance. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(1).2022.21
- Sitnicki M. W., Stepanova A., Pryimak V., Zhylinska O. (2022. Volume 20, Issue #3. pp. 310-324). Creative management: Model for the development of entrepreneurial competencies. *Problems and Perspectives in Management*. Retrieved from http://dx.doi.org/10.21511/ppm.20(3).2022.25
- Spulbar C., Birau R., Trivedi J., Hawaldar I. Th., Minea E. L. (2022. Volume 19, Issue #1. pp. 262-273). Testing volatility spillovers using GARCH models in the Japanese stock market during COVID-19. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(1).2022.20
- 17. Thi Huong Giang Vuong, Thuy Hang Dao, Thi Thuy Hang Le, Huu Manh Nguyen. (2022. Volume 19, Issue #1. pp. 186-200). Debts and corporate cash holdings: Evidence from ASEAN-5. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(1).2022.14
- 18. Tsaurai K. (2022. Volume 19, Issue #3. pp. 215-228). Role of financial sector development in foreign direct investment inflows in BRICS. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(3).2022.18
- 19. Wats S., Sikdar Ch. (2022. Volume 19, Issue #1. pp. 64-76). Dynamics in futures and spot markets: A panel study of advanced and emerging economies of Asia. *Investment Management and Financial Innovations*. Retrieved from http://dx.doi.org/10.21511/imfi.19(1).2022.05
- 20. PJSC "Boryslav Machine-Building Plant": official Internet resource. Retrieved from https://smida.gov.ua/db/prof/00153362

  The article was received by the editors 03.05.2024

  The article is recommended for printing 13.06.2024

ISSN 2786-5002 (online) ISSN 2786-4995 (print)

# ФІНАНСОВО-КРЕДИТНІ СИСТЕМИ: ПЕРСПЕКТИВИ РОЗВИТКУ FINANCIAL AND CREDIT SYSTEMS: PROSPECTS FOR DEVELOPMENT

2(13)2024

#### Катерина Орєхова

кандидат економічних наук, доцент,

доцент кафедри банківського бізнесу та фінансових технологій

Харківський національний університет імені В. Н. Каразіна

Майдан Свободи 4, м. Харків, 61022, Україна

e-mail: <u>oriekhova@karazin.ua</u> ORCID: 0000-0003-0214-2750

Павел Гайда

кандидат військових наук,

доцент кафедри військової підготовки, старший науковий співробітник

Сумський державний університет

вул. Римського-Корсакова, 2, м. Суми, 40007, Україна

e-mail: info@kvp.sumdu.edu.ua

#### Програма забезпечення фінансової безпеки підприємств оборонно-промислового комплексу

Анотація. Для України відкривається вікно можливостей для відновлення стану обороннопромислового комплексу на якісно новій основі, забезпечення високотехнолгічним озброєнням та технологіями ЗСУ відповідно до вимог НАТО. Це можливо завдяки: масштабом постачання західними партнерами сучасної високотехнологічної зброї; налагодження двосторонніх партнерських зв'язків з країнами НАТО, США, Великою Британією та окремими європейськими країнами у забезпеченні ефективного трансферу технологій; зацікавленості іноземних інвесторів у створенні спільних з Україною підприємств на її території щодо виготовлення високотехнологічного озброєння та військової техніки; отримання доступу до сучасних оборонних технологій; навчання військового керівного персоналу відповідно до вимог НАТО, отримання військовими унікального досвіду відповідно стандартів НАТО.

Предметом дослідження у статті  $\epsilon$  теоретико-методичні підходи до формування програми забезпечення фінансової безпеки підпри $\epsilon$ мств.

Метою статті  $\epsilon$  розроблення науково-методичного підходу до формування програми забезпечення фінансової безпеки підпри $\epsilon$ мств оборонно-промислового комплексу.

Використано сукупність методів наукового пізнання, які забезпечили концептуальну єдність дослідження. Методологічною основою є ресурсний та функціональний підходи до вивчення економічних процесів та явищ, а також фундаментальні положення теорії фінансів та теорії ймовірності та математичної статистики.

Для розроблення науково-методичного підходу до формування програми забезпечення фінансової безпеки підприємств оборонно-промислового комплексу використано метод адаптивного прогнозування.

Отримано такі результати: До найбільших загроз зовнішнього середовища, які можуть негативно впливати на реалізацію програми забезпечення фінансової безпеки підприємств, у перспективі належать: ризик зменшення кількості кваліфікованих робітників, ризик зниження попиту на продукцію, ризик зниження конкурентної позиції підприємств на внутрішньому та зовнішньому ринках, ризик високого рівня податкового навантаження.

**Ключові слова:** фінансова безпека, фінансовий ризик, профілактична програма, програма ризикозахищеності, програма відновлення та розвитку, програма подолання кризи.

Формули: 1, рис.: 0, табл.: 7, бібл..: 20.

*Для цитування:* Oriekhova K., Gayda P. Program to ensure financial security of enterprises defense industrial complex. Фінансово-кредитні системи: перспективи розвитку. №2(13) 2024. С. 33-45. DOI: <a href="https://doi.org/10.26565/2786-4995-2024-2-04">https://doi.org/10.26565/2786-4995-2024-2-04</a>

### Список літератури

- 1. Гриценко А. А. Стратегічне планування зовнішньої політики як складова системи національної безпеки. *Політикус*. 2022. Вип. 1. С. 39-43. URL: http://nbuv.gov.ua/UJRN/polit\_2022\_1\_8
- 2. Гриценко О. А., Нечипорук Л. В., Зеленська К. С., Свириденков К. П.. Новітні напрями бізнес-консалтингу. *Економічна теорія та право.* 2022. № 4. С. 20-43. URL: http://nbuv.gov.ua/UJRN/Vnyua\_etp\_2022\_4\_4
- 3. Коломієць Г. М., Меленцова О. В., Чередниченко А. П. Кризовий маркетинг імператив відновлення бізнесу. *Інвестиції: практика та досвід.* 2022. № 15-16. С. 22-28.
- 4. Нечипорук Л. В. Консалтинг щодо оптимізації страхового захисту. *Економічна теорія та право*. 2022. № 2. С. 122-125. URL: http://nbuv.gov.ua/UJRN/Vnyua\_etp\_2022\_2\_11
- 5. Пшик Б. І. Фінансова самодостатність територіальних громад в умовах війни: новітні виклики та шляхи їх подолання. *Ефективна економіка*. 2022. № 10. URL: http://nbuv.gov.ua/UJRN/efek\_2022\_10\_4
- 6. Соболєв В. М., Соболєва М. В. Інституційні перешкоди для інвестиційно-інноваційного розвитку фірми в кланово-олігархічній економічній системі. *Бізнес Інформ.* 2022. № 1. С. 6-13. URL: http://nbuv.gov.ua/UJRN/binf\_2022\_1\_2

- 7. Alsayah A. Strategic alignment and its impact on creating an organization's reputation and image. *Problems and Perspectives in Management*. 2022. Volume 20, Issue #1. pp. 501-513. DOI: http://dx.doi.org/10.21511/ppm.20(1).2022.40
- 8. Hariyani E., Aswar Kh., Wiguna M., Ermawati E., Anisma Y. Factors influencing financial statement disclosure: *Empirical evidence from Indonesia. Investment Management and Financial Innovations.* 2022. Volume 19, Issue #2. pp. 230-237. DOI: http://dx.doi.org/10.21511/imfi.19(2).2022.20
- 9. Hassan H., Sharawi M. Al. The impact of ownership structure on external audit quality: A comparative study between Egypt and Saudi Arabia. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #2. pp. 81-94. DOI: http://dx.doi.org/10.21511/imfi.19(2).2022.07
- 10. Iyoha A.-O. Imas, Ohiokha G., Umoru D., Akhor S. O., Igele G. A. Target capital structure for managerial decision making: Dynamics and determinants. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #3. pp. 322-334. DOI: http://dx.doi.org/10.21511/imfi.19(3).2022.27
- 11. Koziuk V. What do cross-country Bitcoin holdings tell us? Monetary and institutional discontent vs financial development. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #1. pp. 168-185. DOI: http://dx.doi.org/10.21511/imfi.19(1).2022.13
- 12. Sari M. P., Budiarto A., Raharja S., Utaminingsih N. S., Risanda A. The determinant of transfer pricing in Indonesian multinational companies: Moderation effect of tax expenses. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #3. pp. 267-277. DOI: http://dx.doi.org/10.21511/imfi.19(3).2022.22 (дата звернення: 14.01.2024 р.).
- 13. Shkolnyk I., Frolov S., Orlov V., Datsenko V., Kozmenko Y. The impact of financial digitalization on ensuring the economic security of a country at war: New measurement vectors. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #3. P. 119-138. URL: http://dx.URL.org/10.21511/imfi.19(3).2022.11
- 14. Silvera D. L., Hizazi A., Hidayat M. S., Rahayu S. Financial constraints and corporate governance as moderating variables for the determinants of tax avoidance. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #1. pp. 274-286. DOI: http://dx.doi.org/10.21511/imfi.19(1).2022.21
- 15. Sitnicki M. W., Stepanova A., Pryimak V., Zhylinska O. Creative management: Model for the development of entrepreneurial competencies. *Problems and Perspectives in Management*. 2022. Volume 20, Issue #3. pp. 310-324. DOI: http://dx.doi.org/10.21511/ppm.20(3).2022.25
- 16. Spulbar C., Birau R., Trivedi J., Hawaldar I. Th., Minea E. L. Testing volatility spillovers using GARCH models in the Japanese stock market during COVID-19. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #1. pp. 262-273. DOI: http://dx.doi.org/10.21511/imfi.19(1).2022.20
- 17. Thi Huong Giang Vuong, Thuy Hang Dao, Thi Thuy Hang Le, Huu Manh Nguyen Debts and corporate cash holdings: Evidence from ASEAN-5. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #1. pp. 186-200. DOI: http://dx.doi.org/10.21511/imfi.19(1).2022.14
- Tsaurai K. Role of financial sector development in foreign direct investment inflows in BRICS. Investment Management and Financial Innovations. 2022. Volume 19, Issue #3. pp. 215-228. DOI: http://dx.doi.org/10.21511/imfi.19(3).2022.18
- 19. Wats S., Sikdar Ch. Dynamics in futures and spot markets: A panel study of advanced and emerging economies of Asia. *Investment Management and Financial Innovations*. 2022. Volume 19, Issue #1. pp. 64-76. DOI: http://dx.doi.org/10.21511/imfi.19(1).2022.05
- 20. ПАТ "Бориславський машинобудівний завод": офіційний інтернет-ресурс.URL: https://smida.gov.ua/db/prof/00153362
  Стаття надійшла до редакції 03.05.2024
  Статтю рекомендовано до друку 13.06.2024