UDC 651.11:005.334-026.564 DOI 10.26906/EIP.2019.4(75).1860

METHODOLOGICAL APPROACHES TO ASSESSING THE LEVEL OF ENTERPRISE RISK RESISTIBILITY

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Стаття отримана редакцією 05.11.2019 р.
The article was received by editorial board on 05.11.2019

Formulation of the problem. The peculiarity of entrepreneurial activity is the presence of certain entrepreneurial risks which are caused by the uncertainty of the entrepreneurial environment. The exacerbation of the dangers and threats connected with the scarcity of natural resources raises problems of energy, food and environmental security. In a market economy, the target setting, the impetus for entrepreneurial activity is getting a profit, the desire to achieve its maximum value in specific economic conditions. The impossibility of risk-free business running requires that business entities constantly take into account the possible consequences of the decisions taken in terms of their impact on the system of risks accompanying business activity, and the production of measures to prevent and reduce the most dangerous risks in the process of managing these activities, and in addition to this ensuring the sustainability of the activity itself, which is the basis for the effective functioning and development of the enterprise itself.

Analysis of last researches and publications. The problems of risk resistibility are devoted to the scientific works by domestic and foreign scientists and economists: Liaskovska (Kozlova) O.O., Kail V.M., Khomiachenkova N.A., Karpuntsov M.V., Zubova L.V., Zakharkin O.O., Zasanska O.V., Hrymashevych O.N. and others. In the works by these authors, there is no common understanding of the enterprise risk resistibility. The developed methodological approaches for determining the risk resistibility are difficult to implement and can only be considered as basic ones and, with appropriate adjustments, can be used to develop own approach to assessing the enterprise risk resistibility. So, the question posed in this article is still not quite open and therefore requires additional research with specific examples and suggestions.

The task setting. The objective of the article is to develop a methodological approach to assessing the level of risk resistance of an enterprise.

The outline of the main research material. Effective functioning of the enterprise and its sustainable development in modern conditions of management can proceed only on condition of its stability.

Sustainability of an enterprise as a system is the ability to preserve itself, to exist. Higher level of development is innovative development, which allows to provide dynamic stability due to achievement of strategic competitive advantages, despite the fact that high-risk innovative projects can lead to a decrease in sustainability for the current moment and to deterioration of the financial state of the enterprise [1].

The resilience in the context of the management of industrial economic systems is the ability of the management apparatus to respond adequately to the threats of risk factors, taking into account internal vulnerabilities, using reserved resources for the normal conduct of investment, operational and financial activity.

All of the above implies the need to evaluate the risk resistance of the enterprise and its development strategy.

The concept of «enterprise risk resistibility» is not widespread in the economic literature, though it has become increasingly common in the works of economist-practitioners. Approaches to the interpretation of «enterprise risk resistance», presented in the works of domestic and foreign scientists, are classified in Table 1.

Table 1

Systematization of modern approaches to the interpretation of the «enterprise risk resistibility» category*

Definition of terms	Author
The ability to achieve the intended results of activity, stability, despite the action of various factors.	Liaskovska (Kozlova) O.O. [7]
One of the integral qualities of an enterprise as an open system, which characterizes its ability to continuous effective functioning in selected industry markets, despite the influence of external and internal risk factors.	Kyle V.M.[4]
A component of the general enterprise sustainability, an integral characteristic of the enterprise as an open socio-economic system, which characterizes general capabilities of an effective equilibrium uninterrupted functioning of the organization, confronting risks, despite their negative impact.	Karpuntsov M.V.[5]
The value of own funds per unit of risk value (equity covers the cost of risks and consequences thereof) in terms of enterprise management.	Zubova L.V.[3]
In a broad sense, it is an intrinsic property of the system, which helps to maintain its integrity as a result of various influences arising from the external and internal environment by means of potential modification. In a narrow sense, it is the ability to integrate risk management and productivity processes in such a way as to ensure a steady increase in the market value of the enterprise.	Khomiachekova N.A.[11]
The ability of an enterprise to withstand the destabilization of a business through stable processes, control, and risk management tools and methods, including a clear corporate structure and strong brand.	Kulakova S.Yu., Kasminina K.O.[6]

Source: summarized by the authors on the basis of scientific papers [3, 4, 5, 6, 7, 11]

A common feature in the opinion of scientists is the attribution of the risk resistance to the components of the general stability of the enterprise along with financial, social and technological stability.

Many economists equal the concept of «enterprise risk resistibility», «enterprise risk protection» and «enterprise economic security».

However, considering the different perspectives on the interpretation of concepts, it should be noted that they are not identical. Yes, risk protection is one of the main properties of business systems, which characterizes the ability of an enterprise to withstand the destructive influence of risk factors.

It should be noted that, in addition to the ability to withstand external and internal risk factors, the enterprise risk resistibility also includes the economic stability and competitiveness of the enterprise. In turn, the economic security of the enterprise is a set of factors that provide independence, stability, ability to progress in terms of destabilizing factors [2].

The analysis of scientific approaches to the definition of categories «enterprise risk resistibility», «enterprise risk protection» and «economic enterprise security» allowed us to determine their common and distinguishing features (table 2), and depict the relationship between them graphically in the form of a three-level model of enterprise security (pic.1).

Table 2

Comparative analysis of «enterprise risk resistibility», «enterprise risk protection» and «enterprise economic security» categories **

Category	«Enterprise risk protection»	«Enterprise risk resistibility»	«Enterprise economic security»
Common features	Allow an enterprise to operate at risk and quickly eliminate a variety of threats or adapt to external conditions without negative consequences for it		
Distinctive features	Ensures only the existence of the enterprise at risk; it is an integral part of the enterprise risk resistibility	creates conditions not only for the existence but also for the development of the enterprise, is a component of the economic security of the enterprise	combines efficient usage of resources and independent, stable operation of the enterprise; includes risk protection and risk resistibility

** Source: Developed by the author.*

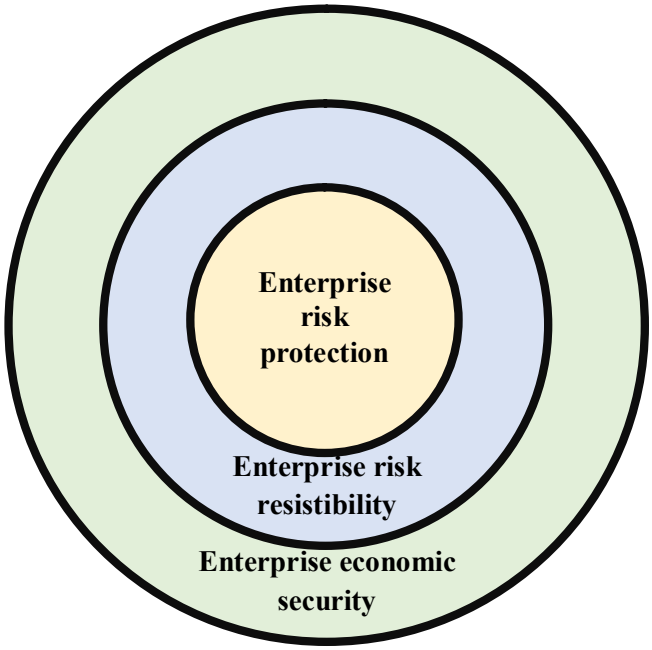

Fig.1 Three-level model of enterprise activity security *

** Source: Developed by the author.*

Summarizing all of the above, we believe that «enterprise risk resistibility» is a state of the enterprise, which allows for a long time to withstand the negative impact of risk factors, maintaining its integrity and ability to continue effective and smooth functioning, as well as purposeful development in an unstable environment.

In the analysis of the economic literature on the risk characteristics of the enterprise, three of its components were identified, such as: financial stability, market stability and production sustainability (pic. 2).

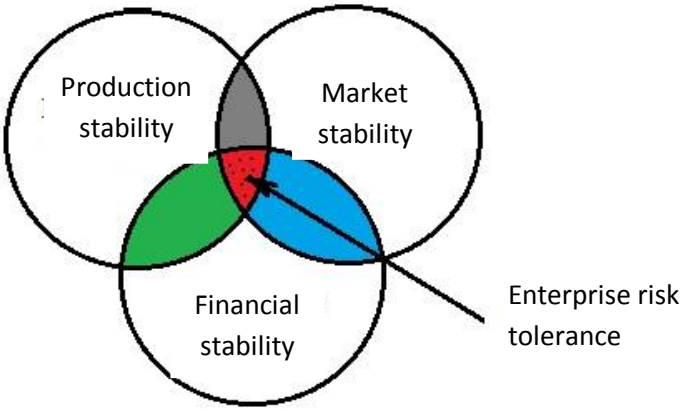

Fig. 2. Components of enterprise risk resistibility*

** Source: improved by the author of [12].*

Production stability means the stability of production activity of the enterprise, the absence of significant reductions in its work, which is guaranteed by the reliability of technology and technological processes, appropriate material and information support, stability and professionalism of staff.

Market stability is characterized by a stable particle of the enterprise in the field of relevant goods and is ensured by adequate marketing, high quality of products and flexible pricing policy.

Financial stability is the stability of the financial position, which is reflected in the balance of finances, sufficient liquidity of assets, availability of necessary reserves.

On the basis of certain components of enterprise risk resistibility (pic. 2) and systematization of existing methodological approaches to assessing its level, exploring their advantages and disadvantages, we

propose the following combination of groups of factors that determine the level of risk resistibility of the enterprise (pic. 3).

The integral indicator of risk resistibility, which determines the level of risk resistibility of the enterprise, is calculated by the formula (1):

$$I_{PC} = \sum_{i=1}^{3} w_i \times I_{PCi} \quad (1)$$

where w_i is the specific gravity of the i-th risk factor indicator,
$I_{pc\,i}$ – the index score of the i-th level of risk resistibility.

In order to form an integral risk resistibility indicator, it is necessary to ensure that the actual values of individual valuation indicators are brought to a comparative form. To solve this problem we suggest to use the methodical device of Smoliak A.V. [9], which was developed for economic risk assessment of industrial enterprises. At the same time, we propose a refined algorithm for grading boundaries by individual levels - using not one, but two main criteria for the assignment of points (scoring): compliance with the normative value and the dynamics of the coefficient during the research period (table 3).

The practical implementation of the proposed approach to the standardization procedure involves the preliminary determination of the normative values of risk parameters. As not all risk assessments have regulatory (recommended) values, and some existing regulatory values do not correspond to the realities of enterprise management in Ukraine, it is proposed to define them as the average values for a sample of enterprises operating under similar conditions or as the industry average (calculated by industry statistics).

The scoring process can be automated and divided into two steps. In the first one, they are assigned separate values in case of conformity or nonconformity of the examined indicator with its normative value. The second one is assigned end points, which take into account the dynamics of valuation indicators in individual analytical groups (components of risk resistibility).

After carrying out the procedure of normalization of estimates by comparing the actual values with the normative ones, the integral indicator of the type of risk resistibility is calculated. The value obtained is within the range [0; 3].

It is proposed to calculate the level of risk resistibility as follows:

- as the arithmetic mean of 3 values within each isolated level of risk resistibility;
- as the arithmetic mean weighted to calculate the integral level of risk resistibility.

It is proposed to set the severity of individual levels of risk resistance (pic. 3).

In establishing the weighting factors , the causal relationship between the individual levels of risk resistibility was taken into account, as well as the importance of their observance in terms of the actual tasks of ensuring the risk resistibility (financing of risk events). To verify the validity of this approach, a series of interviews were conducted with experts from leading enterprises of Poltava region, who supported the proposed approach to determine the weight of individual levels of risk resistibility.

Table 3

Scale bar of conversion of nominal values of coefficients to comparative appearance **

Point	Compliance with the nominal value of the indicator normative *		Direction of change of coefficient in dynamics	Interpretation of assigned points by individual coefficients
	Reporting period	Previous period		Indicator value obtained ...
0,0	–	–	Negative	… is not in compliance with the regulatory framework and has degraded over the reporting period
0,5	–	–	Unchanged	… is not in compliance with the regulatory requirements and has not changed over the reporting period
0,75	–	–	Positive	… is not in compliance with the regulatory framework, and there is a tendency for improvement over the reporting period compared to the previous one
1	–	+	Not taken into account	… does not meet the regulatory requirements in the reporting period, but in the previous period was within the regulatory limits

* «+» – comply; «–» – not comply

*** Source*: *improved by the author of [5].*

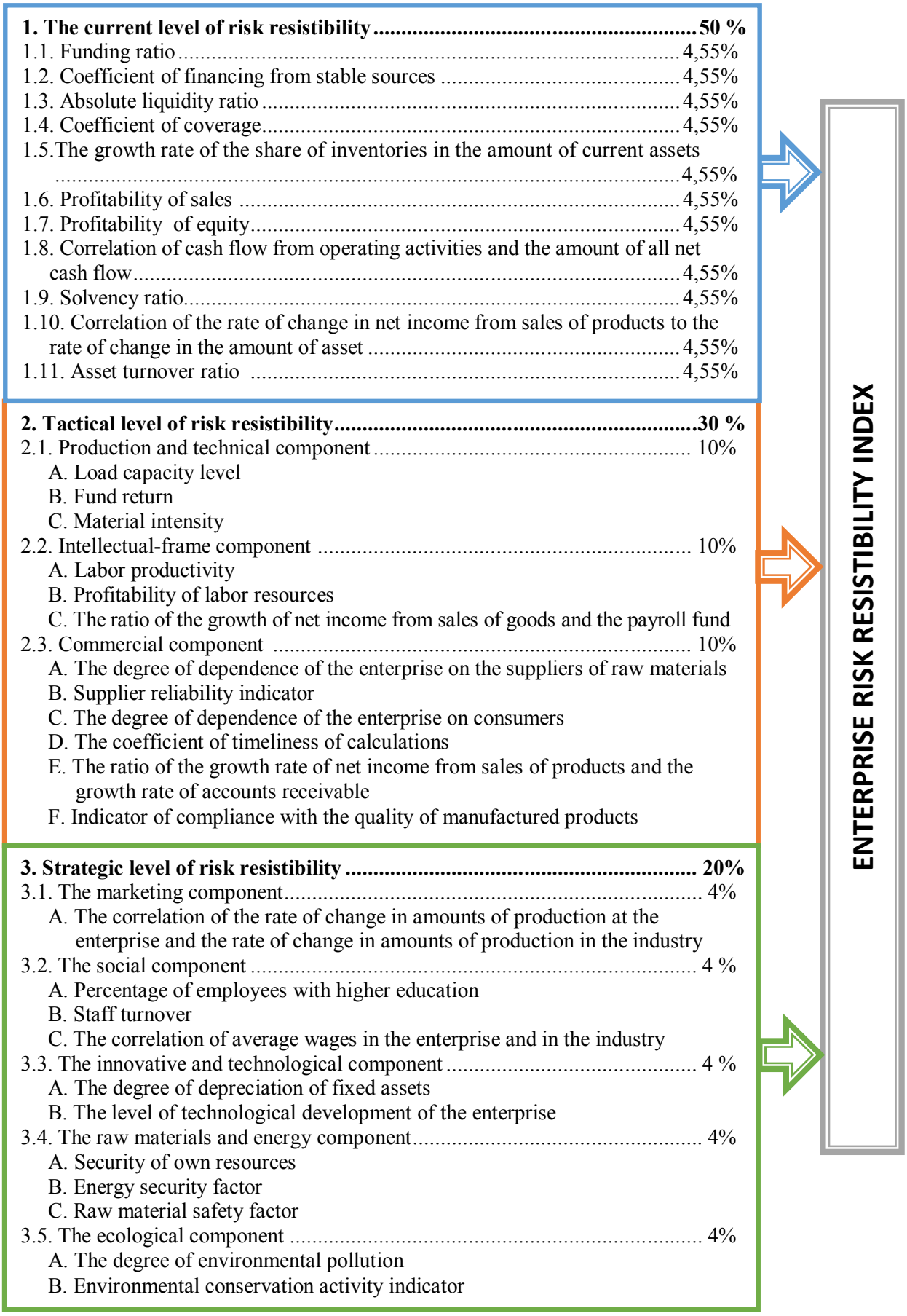

Fig.3 Methodical approach to enterprise risk resistibility assessment *

* *Source: Developed by the author*

Continuation table 3

Point	Compliance with the nominal value of the indicator normative *		Direction of change of coefficient in dynamics	Interpretation of assigned points by individual coefficients
	Reporting period	Previous period		Indicator value obtained ...
1,5	+	–	Not taken into account	… complies with the regulatory one in the reporting period, but in the previous period it was beyond its limits
2	+	+	Negative	… is in compliance with the regulatory and for the reporting period there is a tendency for its deterioration compared to the previous one
2,5	+	+	Unchanged	… complies with regulatory requirements and has not changed over the reporting period
3,0	+	+	Positive	… complies with regulatory requirements and has improved over the reporting period

It is suggested to use the following scale to translate the quantitative level of risk resistibility into linguistic interpretation (table 4).

Table 4

The scale of correspondence of quantitative and linguistic assessment of enterprise risk resistibility

Symbol of risk resistibility type	Quantitative mark of the level of risk resistibility	Linguistic mark of the level of risk resistibility
A	3	Excellent
B	2,5 … 3	Good
C	2 … 2,5	Average
D	1,5 … 2	Satisfactory
F	1 … 1,5	Low
FX	0,5 … 1	Critical
FX+	0 … 0,5	Disastrous

The proposed scale provides for 7 valuation options (which allows to increase the diversity of estimates) based on a uniform distribution of quantitative estimates within the possible range of values of the integral level of risk tolerance (3/6 = 0.5). Depending on the assessment of the level of risk resistibility (quantitative), qualitative (linguistic) identification of risk resistibility of the studied enterprise is carried out.

Conclusions. Thus, the proposed methodological approach to assessing enterprise risk resistibility will assess the overall level of risk tolerance of the enterprise, as well as on the basis of cause-effect relationships to determine key impact accents, the activation of which will increase the resistibility index and increase the financial results of the enterprise in the long term.

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УДК 651.11:005.334-026.564

Кулакова Світлана, кандидат економічних наук, доцент. **Сіора Руслана**. Національний університет «Полтавська політехніка імені Юрія Кондратюка». **Методологічні підходи до оцінювання рівня ризикостійкості підприємства.** Проведений аналіз наукової літератури дозволив систематизувати сучасні підходи до трактування категорії «ризикостійкість підприємства». Було визначено, що багато економістів ототожнюють поняття «ризикостійкість підприємства», «ризикозахищеність підприємства» та «економічна безпека підприємства». В статті проведено порівняльний аналіз категорій «ризикостійкість підприємства», «ризикозахищеність підприємства» й «економічна безпека підприємства», визначено їх спільні риси та відмінності, що дозволило запропонувати трирівневу модель безпеки діяльності підприємства на основі співвідношення зазначених категорій. Усе вищесказане дало змогу надати авторське визначення категорії «ризикостійкість підприємства», під якою пропонується розуміти такий стан підприємства, який дозволяє тривалий час витримувати негативний вплив факторів ризику, зберігаючи при цьому свою цілісність і можливість продовжувати ефективне та безперебійне функціонування, а також цілеспрямований розвиток в умовах нестабільного середовища. Визначено три складові ризикостійкості – фінансова стійкість, ринкова стійкість і виробнича стійкість. Надано коротку їх характеристику. Оскільки рівень ризикостійкості визначається рівнем стійкості за кожною складовою, запропоновано інтегральний показник ризикостійкості визначати як середньозважене значення з показників, що характеризують поточний, тактичний та стратегічний рівні ризикостійкості. Визначено склад показників, які визначають рівень ризикостійкості за кожною складовою, їх вагомість, алгоритм оцінювання. Для якісної ідентифікації рівня ризикостійкості підприємства запропоновано шкалу, що включає сім варіантів оцінювання, починаючи від відмінного стану й закінчуючи катастрофічним. Пропонований методологічний підхід до оцінювання ризикостійкості підприємства дасть змогу оцінити загальний рівень його ризикостійкості, а також на основі причиново-наслідкових зв'язків визначити ключові ударні акценти, активація яких дозволить підвищити фінансові результати діяльності підприємства в довгостроковій перспективі.

Ключові слова: ризик, ризикостійкість підприємства, складові ризикостійкості, індекс ризикостійкості.

УДК 651.11:005.334-026.564

Kulakova Svetlana, Ph.D. in Economics, Associate Professor. **Siora Ruslana**, student. National University «Poltava Yuri Kondratyuk Polytechnic». **Methodological Approaches to Assessing the Level of Enterprise Risk Resistibility.** The analysis of scientific literature allowed us to systematize modern approaches to the interpretation of the category of «enterprise risk resistibility». Therefore, the article provides a comparative analysis of the categories «enterprise risk resistibility», «enterprise risk protection» and «enterprise economic security», their common features and differences are determined, proposed a three-level model of enterprise activity security. Since the level of enterprise risk resistibility is determined by the level of stability for each component, it is proposed to define the integral indicator of resistibility as a weighted average of indicators characterizing the current, tactical and strategic level of enterprise risk resistibility.

Keywords: risk, enterprise risk resistibility, components of enterprise risk resistibility, enterprise risk, resistibility index.

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Кулакова Светлана, кандидат экономических наук, доцент. **Сиора Руслана.** Национальный университет «Полтавская политехника имени Юрия Кондратюка». **Методологические подходы к оценке уровня рискоустойчивости предприятия.** Проведенный анализ научной литературы позволил систематизировать современные подходы к трактованию категории «рискоустойчивость предприятия». Было определено, что многие экономисты отождествляют понятие «рискоустойчивость предприятия», «рискозащищенность предприятия» и «экономическая безопасность предприятия». Поэтому проведен сравнительный анализ категорий «рискоустойчивость предприятия», «рискозащищенность предприятия» и «экономическая безопасность предприятия», определены их общие черты и различия, что позволило предложить трехуровневую модель безопасности деятельности предприятия на основе соотношения указанных категорий. Все вышесказанное дало возможность предоставить авторское определение категории «рискоустойчивость предприятия», под которой предлагается понимать такое состояние предприятия, которое позволяет длительное время выдерживать негативное влияние факторов риска, сохраняя при этом свою целостность и возможность продолжать эффективное и бесперебойное функционирование, а также целенаправленное развитие в условиях нестабильной среды. Определены три составляющие рискоустойчивости финансовая устойчивость, рыночная устойчивость и производственная устойчивость. Предоставлена короткая их характеристика. Определен состав показателей, определяющих уровень рискоустойчивости по каждой составляющей, их значимость, алгоритм их оценки. Для качественной идентификации уровня рискоустойчивости предприятия предложена шкала, которая включает семь вариантов оценивания, начиная от отличного состояния и заканчивая катастрофическим. Предлагаемый методологический подход к оценке рискоустойчивости предприятия позволит оценить общий уровень рискоустойчивости предприятия, а также на основе причинно-следственных связей определить ключевые ударные акценты, активация которых даст возможность повысить финансовые результаты деятельности предприятия в долгосрочной перспективе.

Ключевые слова: риск, рискоустойчивость предприятия, составляющие рискоустойчивости, индекс рискоустойчивости