

**CDSSES 2020****IV International Scientific Conference “Competitiveness and the development of socio-economic systems” dedicated to the memory of Alexander Tatarkin****INTERDEPENDENCE LOGIC OF ECONOMIC SECURITY AND INVESTMENT ATTRACTIVENESS OF THE ENTERPRISE**

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**Abstract**

The article aims to examine a highly debatable issue of ensuring economic security from a new standpoint as the most significant factor determining specific investment objects' attractiveness. Therefore, the authors pay special attention to their original technique's methodology and methods to diagnose an enterprise's economic security. The technique includes identifying determinants that characterize the situation to ensure economic security, assess them as substances of specific factors that characterize an enterprise's investment attractiveness, and assess the factors as an unsystematical component of investment risk. The authors propose a specific matrix-based method to solve some interdependent problems: to diagnose investment object attractiveness, evaluate investment risks specified by enterprise economic security, and make an informed management decision on investment. More importantly, the diagnostic data derived with the method make it possible to identify, develop, and implement specific measures to eliminate various barriers, restrictions, challenges, and threats that arise on the enterprise level as well as on the sectoral, regional, and country levels, and thereby create a favourable environment for the promotion of investment processes.

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## 1. Introduction

Today, one of the urgent problems of the Russian economy's advanced development, both in theoretical and practical terms, is the problem of creating a climate that is favourable for doing business and creating conditions that promote investment processes. At the same time, there is growing awareness that it is impossible to solve the problem without considering such an important factor as enterprises' economic security, which largely determines their investment attractiveness and perception by a particular appraiser. In this regard, the authors consider it necessary to examine the logical relationship between enterprises' investment attractiveness and economic security. The following circumstances can explain the relevance of the approach:

Firstly, it is the need to implement strategic national priorities defining the goals, directions and objectives of the Russian Federation policy in the field of innovation and investment activities aimed primarily at creating the favourable environment for investment resource concentration and competition development conditions, as well as attracting investment to the Russian Federation economy. Another major strategic goal of the state policy up to 2030 is formulated in the Russian Federation National Security Strategy and aims to counteract challenges and threats to its economic security.

Secondly, it is the need for practice since the expectations that the market, competition, and self-interest alone will motivate investment and innovation have not been satisfied. As a result, we are faced with the fact that the economic environment in which business operates is changing too slowly towards the conditions favourable for economic entities' activities. The evidence is the fact that enterprises, as the primary links of the national economic system, are often unable to respond adequately to various types of challenges and to resist external barrier and restrictive factors and threats caused by the negative events both in the enterprise organization and management and in the market economy itself. All this shows up in the imperfection of the economic mechanism which is still poorly contributing to eliminating the objective market economy contradiction between the planned work organization at individual enterprises and the production anarchy in the entire socialized economy.

Thirdly, the first and second circumstances point to the need for further development of the theory. First of all, this refers to very debatable questions about the essence of economic security, its determinants, their diagnostics, and, especially, methodological approaches to assessing the level of economic security and the degree of its impact on the enterprise investment attractiveness. This predetermines the content of the research, which is devoted to the development of an adequate methodological approach and a specific method to diagnose and determine the level of economic security as an essential component of the enterprise investment attractiveness as well as to assess the factor of economic security as investment risk, more specifically, in its unsystematical part. Thereupon, the article considers the possibility of using the authors' original matrix approach to develop a practical tool for diagnosing the economic security of enterprises in its impact on their investment attractiveness, as well as for evaluating various internal and external threats and challenges in the form of an unsystematical component of investment risk.

## **2. Problem Statement**

Thus, the main problem solved in the article is the presentation of the methodology to study economic security as an essential factor of investment attractiveness. At the same time, it is crucial to determine the content of this phenomenon to reveal the causal relationship between the elements of specific determinants and conditions characterizing threats, challenges, and ultimately investment risks. In addition, we consider it necessary to focus on the crucial fact that any enterprise is an element of the social-economic system. In this regard, its economic security and its investment attractiveness significantly depend on the situation on each system level, i.e. on the industry, regional and country ones. Therefore, it is important to define the determinants characterizing enterprise economic security, which are formed on each of the hierarchical levels of management. In addition, the study of the problem should take into account the fact that economic security is a subjective-objective reality perceived by the entrepreneur in terms of the ability to set up a new business, the level of risk and failure (Beynon et al., 2018). However, the nature of perception depends mainly on the fact who exactly is the appraiser. In particular, an active entrepreneur engaged in investment activities faces certain entry barriers and restrictions, including challenges and threats, at entrepreneurial choice. The entrepreneur is sure to appraise them first and make a management decision, appropriate to their interests and relevant to their attitude to risk, to invest in the business being set up (Stroe et al., 2018). Naturally, the same kind of appraisal is typical for a potential partner, an external investor, having more alternatives and a wider choice of business objects, taking into account the type of attractive activity (industry), favourable location (region) and country affiliation.

## **3. Research Questions**

The research problem under consideration has to be solved as the following specific issues: firstly, the identification of the determinants having a considerable impact on providing economic security, the diagnostics of the most important factors determining the investment attractiveness of investment objects; secondly, the improvement of the judgement method of economic security determinants and investment attractiveness factors to reduce the subjective impact on these judgements, including the appraisal of an unsystematical component of investment risk; thirdly, the possibility of the method practical application providing, on the one hand, the diagnostics of economic security as an important factor of enterprise investment attractiveness and, on the other hand, its assessment as investment risk, specifically, in its unsystematical part.

## **4. Purpose of the Study**

As follows from the problem under consideration, the research aims to identify causal relationships between enterprise economic security and investment attractiveness and, therefore, define an adequate approach to developing a comprehensive method. The method has to combine the diagnostics and assessment of economic security level, supposed to be an essential factor of enterprise investment attractiveness, which can be estimated in the form of investment risk, instead, in its unsystematical part.

Following this idea, we suppose that it makes sense to quantify the level of economic security to apply this assessment in practice. Since the strategic goal of ensuring economic security is a sustainable advanced development of the economy, which combines its economic, administrative and legal, resource and technical, social and environmental aspects, it is advisable to propose an appropriate classification of factor groups. They include various threats and challenges, barriers and restrictions that hinder enterprise activities and negatively affect its economic security. Theoretically, a particular method of production is characterized, on the one hand, by productive forces (material resources, labour resources and their technical and technological level, labour force and organizational, social and environmental conditions of production) and, on the other hand, by economic relations, which, in turn, are implemented in certain organizational and economic forms and are regulated by administrative and legal methods and mechanisms through various types of institutions.

## 5. Research Methods

The study rests on methods of theoretical, systems, logical, and comparative analysis of academic literature, general scientific methods, like analysis, synthesis, induction, deduction, comparison, generalization, the analog approach, and simulation..

## 6. Findings

Considering the theory of economic security, we do not aim to elaborate on the discussion of the phenomenon definitions. The only thing to be noted here to clarify the subject of research is a rather wide range within which this category is discussed: from focusing on different characteristic conditions, for example, those stipulating the economy development and efficiency, its protection from external and internal threats (Tatarkin & Kuklin, 2012), to upholding ideas about the existence of the phenomenon only on the national level, regarding it as a government policy to resist threats to the country's defense and to protect people's lives (Kevin & Topel, 2013), to improving the quality and standards of people's lives (Courtney & Levine, 2011). In addition, attention should be drawn to ensuring the security of socio-economic systems as they are thought to protect the systems against the risk of well-being loss in conditions of limited resources (Lee, 2015). A number of publications do not only claim that this concept can be used on the national level, but also point to its illegal absolutization, since the problems of enterprises and regions can be solved with ready-made tools without introducing any terms that are absolutely superfluous in terms of argumentation. There is certainly some truth in this. Indeed, it hardly makes sense to present clear and generally accepted concepts with a new phrase or term and even develop a special conceptual apparatus and special quantitative (*emphasized by the authors*) methods to measure economic security. However, this does not mean denying that all economic processes are carried out at enterprises that represent the initial level of an economic system. Therefore, on the one hand, their economic security largely determines the economic security of other system levels, and, on the other hand, the external environment of enterprises, i.e. the industry, regional and country levels, is the business environment that can carry external threats affecting the enterprise economic security negatively, and as a result, their investment attractiveness. Several works discuss various aspects of this relationship: e.g.,

business activation is associated with ensuring the economic security of business and the state on the whole (Castaño et al., 2016), the development of trust and joint initiatives of the state and business not only increase the profitability level of joint projects, but also make it possible to spread risks, providing additional benefits for each of the parties (Autio & Rannikko, 2016). Our approach's peculiarity is that we consider an enterprise as a kind of organism, whose economic security is ensured by some kind of immunity to the impact of various internal and external threats on it, and which is able to respond to the challenges caused by these threats. At the same time, the dialectics is that threats and challenges do affect not only economic security negatively, but also encourage economic growth and show the way to sustainable development (Castaño et al., 2016). However, we consider any threat mainly as a form of danger, a specific set of conditions and determinants harming an enterprise's financial and economic activities. In any case, an enterprise, like any other organism, should be able to resist them and avoid possible damage as much as possible, or at least partially. Meanwhile, achieving such a state implies the absence of internal threats related to business organization incompetence and errors, which can also be caused by the overall inadequate business climate in the industry, the region and the country as a whole. In this regard, the nature of the impact of economic security on investment attractiveness and, above all, on the results of financial and economic activities of enterprises makes it necessary to identify and further assess external and internal threats and challenges and their determinants through an adequate diagnostic method, which should, in our view (Alexandrov et al., 2020), be based on the principle of 'factors – levels' taking into account the fact that a company operates in a social economic hierarchical system and its investment attractiveness is due to the situation developing on 'upper floors' of the hierarchical economic vertical. The use of this principle is also justified by the fact that the determinants and overall factors determining both economic security and investment attractiveness are essentially the same, which allows us to solve the problem of assessment and appraisal with a single methodological approach. Due to the article's limited possibilities, we will not present the principle of 'factors – levels' directly in a matrix form. Logically, it is a combination of four (see justification below) focused groups of factors in their manifestation at each of the four levels of the hierarchical economic system. Thus, 16 combinations are presented for diagnostics, in which the assessments of the main threats, barriers and restrictions that negatively affect economic security and, accordingly, investment attractiveness (also in the form of an unsystematical component of investment risk) are summed up both by level (horizontal) and by factors (vertical). The only thing left to do is to determine the content of these combinations. To this purpose, we are developing a step-by-step algorithm, the first step of which is, actually, the *identification* of possible factors and their dominant characteristics, which are barriers and restrictions, challenges and threats affecting investment attractiveness negatively, and then *the differentiation* of them according to a species group they belong to, on the one hand, and to a hierarchical level, on the other hand. Our viewpoint is based on the understanding that a production process is an interaction of material and personal factors provided by certain production conditions (infrastructure) and specific organizational and legal relations. The factors can be quite legitimately presented in four main groups: economic, administrative and legal, resource and technical, and social and environmental. For more information about factor groups, see (Alexandrov et al., 2020). We consider it necessary to focus on some specific determinants and factors, taking into account their importance. Such determinants of economic security and factors of investment

attractiveness are state tax administration and non-tax payment regulation. However, until now, there is no clear opinion about whether they can perform a stimulating function and under which conditions they, on the contrary, affect the enterprise activities negatively and become one of the external threats. Some believe that tax incentives by definition cannot be a significant factor encouraging investment activity (Alexandrov & Yablonev, 2019) and perform mainly a fiscal function (Barbosa et al., 2016), the inadequate nature of tax administration is considered a destabilizing factor. Some other authors argue that tax incentives still play a secondary role compared to other determinants. At the same time, the argument that lower taxes increase investment attractiveness is questioned. Some other authors associate their possibility of performing a stimulating role only under certain circumstances within specific phases of the economic cycle (Sims & Wolff, 2018), or at a certain level of economic development of the country. At the same time, this statement is assumed to be true for developed regions that already have a sufficient amount of attracted investment. Along with the tax administration factor determining the activity of an entrepreneur, some economists recommend considering monetary policy (Salman, 2016) and factors formed not only on the country and regional levels, but also on the industry one. In particular, this applies to such activities as extractive industries where the leading role is played by rent relations, which, as suggested in a number of works (Nosov et al., 2016), require, by definition, a different mechanism for regulating the distribution and withdrawal of rental income than the mechanism that has developed to date through the administration of taxes. It has also to be emphasized the presence, first of all, in administrative and legal factors, of political, corruption and other components that can have a significant negative impact on the motivation and incentives to invest. A number of articles bring up issues of underdeveloped institutions in transition economies, which forces entrepreneurs to get in political connections (Ge et al., 2017), as well as issues of imperfect regulations, which are considered as a threat leading to unacceptable risk (Gvozdikova et al., 2019). The issues of legal environment imperfection, insufficiency of legal ways to protect business, which are the reasons for informal political protection, are also discussed. Moreover, political resources are used both to protect business and to redistribute property (Hamilton-Hart, 2017), which can only generate such threats to business as unfriendly and criminal mergers and acquisitions. The articles mentioned show that it is possible to rise to these challenges only if an appropriate regulatory framework is created and the principle of mandatory implementation of its provisions is observed (Maung et al., 2019). Nevertheless, we are sure that we should not neglect the fact that mergers and acquisitions are market economy mechanisms being able to solve the problem of 'inefficient owner'. The second step of the algorithm ranks the most significant determinants of economic security and, accordingly, investment attractiveness factors related to each group and on each level. In other words, all identified determinants and factors receive a score with the expert method. The assessment is based on opinions of several experts and can be carried out on any scale. For example, for a 5-point scale, where 1 means a low level, and 5 means a high level of barriers, challenges, and threats. In order to increase the validity of estimates and reduce the subjective impact on them, i.e. the experts' personal opinion, we propose to apply Kendall's coefficient of concordance in order to determine the degree of expert assessments' correlation and to line up determinants and factors affecting object investment attractiveness from the minimum to the maximum. However, according to the Pareto principle a large number of factors and estimates allows you to select 20% of factors determining 80% of 'factors –

levels' in each of the 16 combinations, and then the overall score of investment attractiveness. In the third step, the obtained scores give the opportunity to estimate an unsystematical component of investment risk in each of the 16 combinations under consideration and in the whole invested object by summing them either by levels or by factors. To translate the scores into risks, we have proposed a method based on the conclusions of a number of foreign studies, which have shown that in the ratio of systematical and unsystematical components of investment risk, the share of unsystematical risk can fluctuate within a wide range and can take up to 80% of the total risk. We have found that the ratio can be determined in each specific case. Initially, the ratio depends on how many factors, from all factors representing all hierarchical levels of management, receive a score other than zero. This can make it possible to derive the ratio adjustment coefficient defined as the proportion of those 'factors – levels' combinations that receive a non-zero score in the total number of combinations equal to sixteen. The absolute value of an unsystematical component of investment risk can be obtained by multiplying the known value of a systematical part of the risk by the ratio adjustment coefficient. For example, if all sixteen factor–level combinations are evaluated at more than zero, then the adjustment coefficient will be 1:4, meaning that the share of unsystematical risk in the total risk is assumed to be 80%. Thus, the authors have substantiated the methodology and developed an appropriate step-by-step algorithm which permit to increase the reliability and validity of diagnostics of investment attractiveness factors, including the determinants of the economic security of enterprises, as well as to assess the non-systematic component of investment risk. First, the developed algorithm is distinguished by the use of the author's "factor-level" methodological approach, which aimed at identifying the determinants and factors that formed at each of the hierarchical levels of management (enterprise, industry, region, national economy) and appeared as threats and challenges, barriers and restrictions that negatively affect the economic security and investment attractiveness of the enterprise. Secondly, the authors proposed a new author's toolkit for identification, differentiation and ranking of determinants and factors in order to single out those that have the greatest negative impact on assessments. At the same time, it is important to emphasize that the proposed toolkit uses the appropriate methods of consistency and ranking of expert assessments, which contribute to the achievement of their greater validity and allow minimizing the influence of the subjective factor inherent in expert assessment methods. Finally, thirdly, the authors have proposed an original method for calculating the non-systematic part of the investment risk based on the estimated data obtained during the diagnosis. This method provides the possibility of an additive assessment of the systematic component of investment risk and the use of this amount as an aggregate value of the discount rate to justify specific investment decisions.

## 7. Conclusion

Along with the conclusions made above, we want to emphasize that the use of our research results following the goal set will help significantly advance both in theoretical and practical terms and solve the main problem of ensuring enterprise economic security and, accordingly, their investment attractiveness. Besides, the research findings can solve several tasks in improving the following: firstly, diagnosing the situation with ensuring enterprise economic security and investment attractiveness, assessing an unsystematical component of investment risk; secondly, identifying barrier and limiting factors, challenge

and threat determinants affecting economic security negatively; thirdly, identifying the reasons for their origin and differentiating them by groups of factors and the importance of their impact on economic security and investment attractiveness; finally, determining an unsystematical component of investment risk and, accordingly, a discount rate for evaluating project effectiveness.

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