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RISK ASSESSMENT AND HEDGING AS THE BASIS OF FINANCIAL SECURITY OF THE ENTERPRISE

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Abstract: *Financial security is the basis for the effective development of any economic agent; it is especially important for enterprises, since their financial security underlies the security of both households and the state. This article examines the risks that can lead to the loss of the financial security of an enterprise, which the author classified into: general economic, industry- specific and risks of a particular enterprise. Hedging financial security risks will be most effective if the management of the enterprise evaluates the risks, using the classification proposed by the author. The financial security of an enterprise depends on the financial resources necessary for its normal condition, ensuring their placement and efficient use, financial stability with other legal entities and individuals, solvency and financial stability, as well as on the efficiency of the operating, financial and other activities of the enterprise. By the financial condition one can judge the solvency, liquidity and financial stability of the enterprise. In a market economy, defining the boundaries of an enterprise's financial security is one of the most important economic problems, since insufficient financial stability can lead to a shortage of funds for enterprises, and to their insolvency and, ultimately, bankruptcy, as well as "excessive" stability will slow down development, burdening the enterprise with excess inventories and reserves. Financial security should be considered taking into account the risks that arise both at the level of the economy as a whole, and at the level of the industry and at the level of the enterprise itself.*

Keywords: *risk assessment, hedging, financial security.*

UDC: *[330.131.7:336]:334.72*

JEL Classification: *D61, G32.*

INTRODUCTION

Financial security is the basis for the effective development of any economic agent, starting from the household and ending with the state. In this model, enterprises play a significant role in maintaining the financial security of both households and the state. Various definitions and concepts of financial security are considered in the economic literature, as I. Blank defines financial security as a quantitatively and qualitatively determined level of the financial condition of an enterprise [2]. While Papekhin R. defines the financial security of an enterprise as a complex concept reflecting such a state of finance in which the enterprise is able to develop steadily while maintaining its financial security in conditions of additional risk [3].Alexandr Cauia considers financial security as a concept that includes a set of measures, methods and means to protect the economic interests of the state at the macro level, corporate structures, financial activities of business entities at the micro level [1].

According to the author, financial security is the ability of an economic agent, using resources, primarily financial, to withstand risks.

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PAPER BODY

Analyzing the economic literature, we can state the fact that the risks faced by the enterprise are mainly classified as internal and external. The author offers a classification of the risks faced by the enterprise into:

- *General economic,*
- *Industry-specific,*
- *Risks of a particular enterprise.*

In turn, the general economic risks faced by the enterprise can be represented as follows:

- *Unstable economy, economic crisis or stagnation,*
- *hyperinflation,*
- *unfavorable macroeconomic indicators,*
- *the crisis of the country's financial and credit system,*
- *political crises,*
- *frequent changes in legislation, in terms of taxation, lending, insurance, customs legislation*

Industry-specific risks that affect the financial security of an enterprise can be presented as follows:

- *negative changes occurring in the economic sector in which the enterprise operates,*
- *disloyal competition from competitors,*
- *legislative prohibitions for enterprises in a particular industry to export their products,*
- *frequent changes in regulations and legislation for the industry in which the enterprise operates,*
- *government restrictions on the selling price of goods or products*.

The company itself may face the following types of risks, which can significantly affect its financial security:

- *unfavorable financial performance,*
- *aspects related to disruption of business continuity or liquidity of the enterprise;*
- *development and offering to the market new types of goods or services or transition to a new spectrum of the economy;*
- *weak marketing and pricing policy,*
- *lack of strategic planning and budgeting,*
- *lack of trained, qualified personnel,*
- *changes in the structure of the enterprise, including reorganization,*
- *poor organization of the enterprise's internal control system;*
- *discrepancy between information and entrepreneurial strategy;*
- *changes in the information environment of the enterprise;*
- *transactions or events that lead to estimation uncertainty, including accounting;*
- *litigation.*

Analyzing general economic risks, it can be stated that one of the main indicators affecting the activities of an enterprise is inflation. Figure 1 shows the dynamics of inflation in the Republic of Moldova from 2018 to 2022, it should be noted that in 2022 it amounted to 30.2%.

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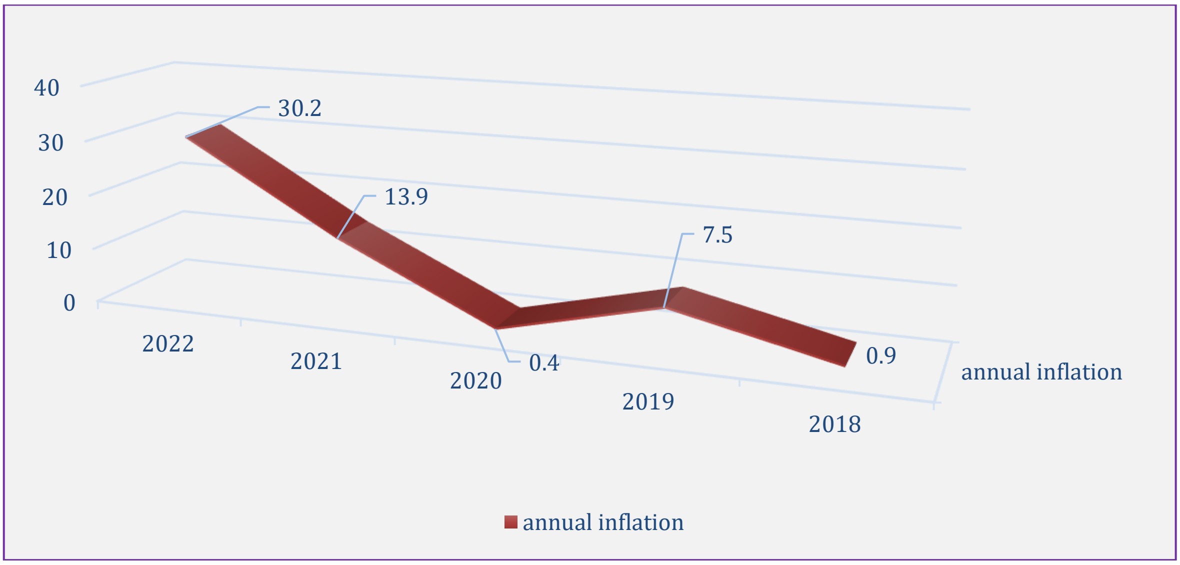
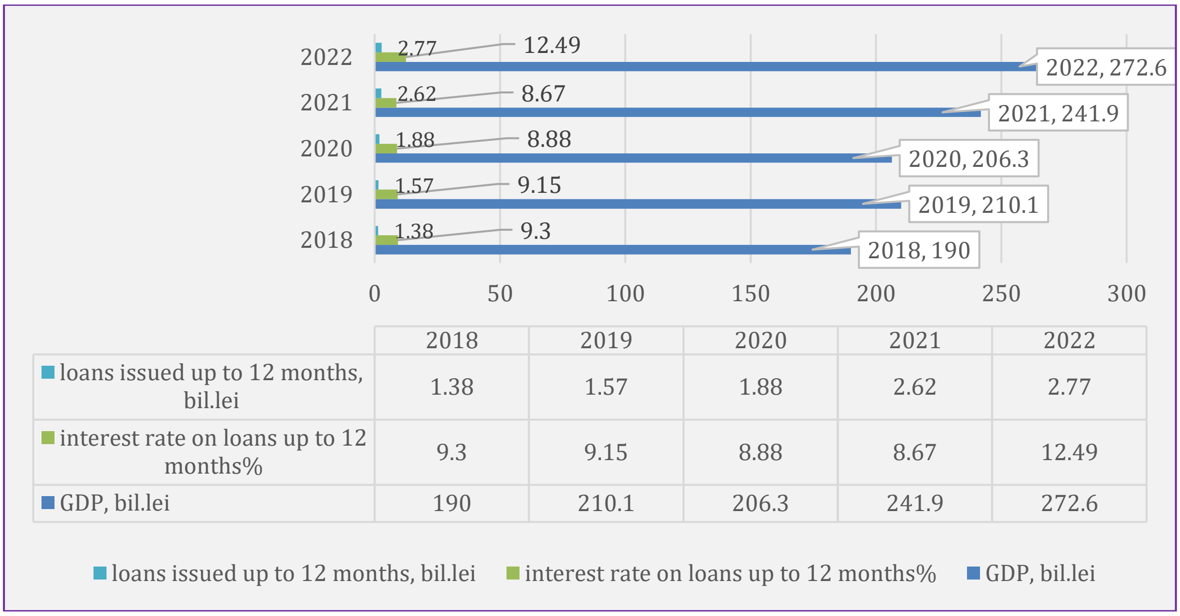


Figure 1. Annual inflation in the Republic of Moldova in dynamics

Source: Elaborated by the author according to the NBM' s data https://www.bnm.md/ro/content/rata-inflatiei-0

Analyzing the macroeconomic indicators and their impact on the financial security of the enterprise, presented in Fig. 2, we can note the following:

- *over the period 2018-2022, GDP has steadily grown and in 2022, compared to 2018, the growth rate was 143.4%*
- *there is an increase in loans issued to enterprises, the growth rate in 2022 compared to 2018 was 195.6%.*



	2018	2019	2020	2021	2022
loans issued up to 12 months, bil.lei	1.38	1.57	1.88	2.62	2.77
interest rate on loans up to 12 months%	9.3	9.15	8.88	8.67	12.49
GDP, bil.lei	190	210.1	206.3	241.9	272.6

Figure 2. Macroeconomic indicators of the Republic of Moldova in dynamics

Source: Elaborated by the author according to the NBM' s data https://www.bnm.md/bdi/pages/reports/dpmc/DPMC8.xhtml?id=0&lang=ro

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If we analyze the indicators of Fig. 2, namely, the dynamics of the interest rate on loans up to 12 months granted to legal entities, then we can state that the rate decreased in 2019 compared to 2018 by 0.3 points, respectively, in 2020 compared to 2019, a decrease of 0.27 points, in 2021 compared to 2021, a decrease by 0.21 points and a sharp increase in the loan rate in 2022 in relation to 2021 by 3.82 points.

At the same time, it is observed that the amount of loans received was not affected by the level of the interest rate, for example: in 2020, when the interest rate was 8.88%, 1.88 bil. lei of loans were taken, while in 2022, when the rate was 12.49%, 2.77 bil.lei of loans were issued.

It is necessary to analyze in more detail the trend in GDP growth and loans received by legal entities for up to 12 months, what is presented in table 1.

Table 1. Trends in economic indicators of Moldova

	2019	2020	2021	2022
GDP growth rate in relation to previous year, %	100,6	98,2	117,3	112,7
Growth rate of loans issued For legal entities up to 12 months in relation to the previous year, %	113,7	119,7	139	105,7

Source: Elaborated by the author according to the NBM' s data
https://www.bnm.md/bdi/pages/reports/dpmc/DPMC8.xhtml?id=0&lang=ro

Analyzing the data in Table 1 and the information presented above, it can be stated that the amount of loans received does not depend on the growth of inflation, and the activity of the economy, changes in the quantitative indicators of GDP have a certain impact on the amount of loans received.

The financial security of an enterprise depends on the availability of financial resources necessary for its normal functioning, the appropriateness of their placement and efficiency of use, financial relationships with other legal entities and individuals, solvency and financial stability, as well as on the effectiveness of the operational, financial and other activities of the enterprise.

The financial condition of an enterprise shows the degree to which the enterprise is provided with financial resources, as well as the feasibility of investing financial resources in activities and the efficiency of their use. By the financial condition one can judge the solvency, liquidity, and financial stability of the enterprise. It is on the basis of these data that the enterprise's operating strategy is developed, performance assessments are made and decisions are made about the prospects for the enterprise's activities.

The financial condition directly depends on the performance indicators of the enterprise. The efficiency of each enterprise is expressed in financial results, such as: profit received as a result of entrepreneurial activity. The return on sales is an indicator of the financial activity and efficiency of the enterprise, this indicator shows how much gross profit per 1 lei of sales income, the indicators of return on assets and equity are also calculated.

An important condition for assessing the financial security of an enterprise is the calculation and analysis of the financial indicators of the enterprise.

Analysis of financial indicators is one of the methods for assessing the state of an enterprise and its capabilities in the future. It acts as the basis for strategic planning, helps management identify resources and directions for subsequent development of the enterprise, and find its strengths and weaknesses. Analysis of financial ratios is carried out

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in order to identify optimal ways to achieve the goals of the enterprise, such as increasing business activity - asset turnover, ensuring liquidity and financial stability, increasing the profitability of the enterprise.

Based on the content of the financial condition, we can draw the following fundamental conclusion that the financial security of an enterprise is based on:

- *rationality of the structure of assets and liabilities, that is, the enterprise's funds and their sources,*
- *efficient use of property and profitability of products,*
- *the degree of its financial stability,*
- *the level of liquidity and solvency of the enterprise.*

Analyzing the economic indicators of small and medium-sized enterprises in the dynamics in the Republic of Moldova, it should be noted that they make a significant contribution to the development of the national economy.

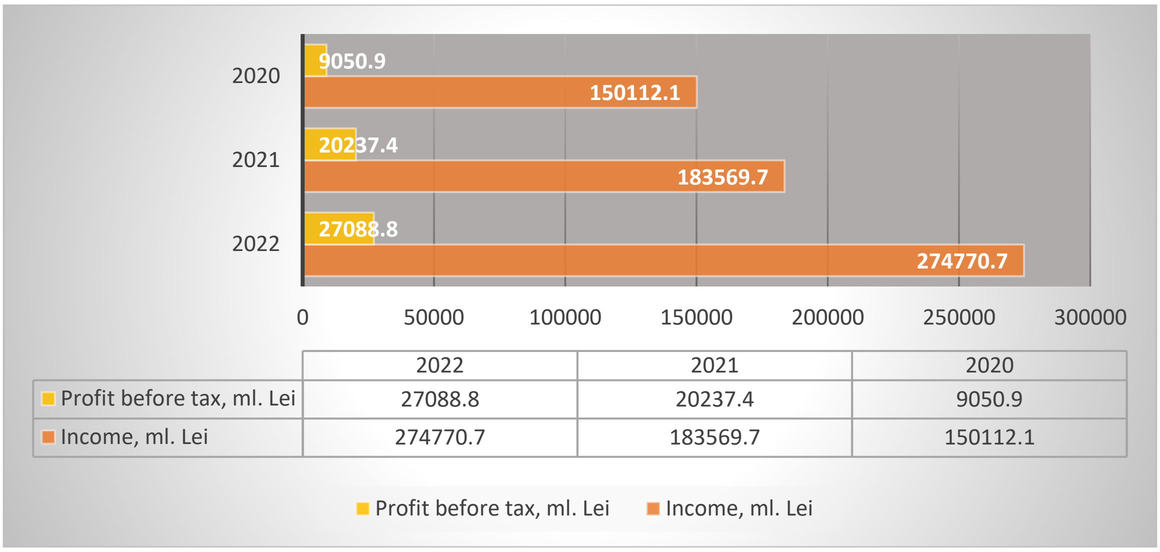

Figure 3. Economic indicators of Small and Medium-sized Enterprises of the Republic of Moldova in dynamics

Source: Elaborated by the author according to the NBS' s data https://statistica.gov.md/ro/statistic_indicator_details/22

Based on the data presented in Figure 3, the following conclusions can be drawn:

- The profitability of sales by profit before taxation of small and medium-sized enterprises in the Republic of Moldova in 2020 amounted to 6 bani per 1 lei of sales income, in 2021 -11 bani, in 2022 - 10 bani.
- It should be noted that in the conditions of high inflation in 2022, small and medium-sized enterprises of the Republic of Moldova managed to keep the profitability of sales almost at the level of last year.
- The profitability of sales in the region of 10% of sales revenue is considered a good indicator at the level of the global economy.

Risk management is becoming more relevant every year and more and more organizations and managers are introducing risk management schemes into their activities. The main goal of neutralizing risks when implementing a new activity is to protect it from all kinds of risks that prevent it from achieving its goals.

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The process of managing activity risks involves minimizing possible risks or losses of the project related to profit, people or other problems that may arise during work.

The use of the hedging method to neutralize risks is relevant today, since this financial instrument is directly aimed either at compensating for the expected losses of the enterprise, or at insuring against unplanned low profits.

The use of a risk hedging system, on the one hand, provides a guarantee to the acquirer or investor, some kind of insurance protection against all kinds of adverse consequences, but, on the other hand, it is necessary to give part of the profit for such reliability.

In essence, hedging is somewhat similar to classical types of insurance – for the opportunity to rely on insurance protection, the policyholder will have to pay an insurance premium. In order to make the most optimal use of hedging, it is necessary to develop a clear and effective program for its implementation, which will help reduce the risk levels to the minimum.

In the process of implementing a hedging program, an analysis of the effectiveness of the strategies used in hedging should be implemented. A hedging strategy is a set of specific financial hedging instruments and methods of using them to reduce the risks.

Hedging can reduce various types of risks to a reasonable level, primarily using various derivative financial instruments, such as forwards and futures, currency swaps, which makes it possible to isolate and control the effect of managing a particular type of risk.

In addition, enterprises can use long-term contracts, transfer pricing, and the use of insurance policies as risk hedging, an enterprise can manage risks, namely avoid, prevent, and reduce.

A company is exposed to financial risk due to its dependence on market factors such as commodity prices, exchange rates and interest rates. In a civilized market economy, insurance, or hedging, of such risks is often an integral part of business planning.

The purpose of hedging is to eliminate the uncertainty of future cash flows (both negative and positive), which will allow you to have a complete picture of future income and expenses arising in the course of financial or business activities.

Thus, the main task of hedging is to transform risk from unpredictable forms into clearly defined ones.

In modern practice, the hedging process is closely interconnected with the overall management of the company's assets and liabilities and covers the entire set of actions aimed at eliminating or at least reducing financial risks.

The implementation of risk hedging strategies should be carried out with control over the implementation of decisions made in the process.

When hedging the risks of an enterprise, one should take into account the classification of risks proposed by the author: into general economic, sectoral and the enterprise itself.

To effectively hedge risks at the general economic level, enterprise management must monitor changes in the exchange rate and interest rates on loans. In situations where an enterprise has funds in foreign currency, with a favorable exchange rate for the corresponding currency, upon exchange, it is possible to receive a positive influx of funds in national currency.

The management of the enterprise must constantly promptly analyze the financial situation and performance of the enterprise in order to make the right decisions in a timely manner to overcome crisis situations.

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Despite the costs associated with hedging and the difficulties that an enterprise may encounter in developing and implementing a hedging strategy, its role in ensuring the progressive development of the enterprise is quite large and is associated with:

- the possibility of significantly reducing the price risk associated with the purchase of raw materials and the supply of finished products;
- freeing up enterprise resources and helping management focus on core aspects of the business, minimizing risks,
- the ability to increase capital, reducing the cost of using funds and stabilizing income;
- ensuring constant financial protection using market and non-market instruments;
- making it easier to attract credit resources: banks take into account hedged collateral at a higher rate; the same applies to contracts for the supply of finished products.

Types of hedging using market mechanisms can be classified as follows:

- *by type of hedging instruments (exchange and over-the-counter contracts);*
- *by type of counterparty (buyer and seller hedge);*
- *by the amount of insured risks (full or partial);*
- *in relation to the time of conclusion of the underlying transaction; (depending on the time of acquisition of the underlying asset);*
- *by asset type;*
- *under the terms of the hedging contract (one-way, two-way hedging).*

For hedging purposes, management of an enterprise can use:

1. effective management of the assets and liabilities of the enterprise; for each period of time, the amount of assets and liabilities with the corresponding repayment periods is determined. A significant advantage as a risk hedging tool is its simplicity and clarity combined with the possibility of a comprehensive analysis of assets and liabilities,
2. forward agreements,
3. futures contracts,
4. currency options,
5. swap contracts,
6. diversification of assets, that is, the distribution of free investment capital into stocks, bonds, real estate, bank deposits, precious metals,
7. purchase and sale transactions of long-term and short-term government securities.

At the same time, the disadvantages of hedging should also be considered, for example, the considered insurance mechanism is not a panacea for all risks, since it has a number of significant disadvantages:

- conscious refusal of possible additional profit;
- excess costs for opening and fulfilling obligations under hedging transactions;
- the risk of changes in legislation in economic and tax policy (introduction of taxes). In this situation, the hedge will not only not protect, but will also lead to losses;
- exchange restrictions;
- increase in the number and complexity of the structure of transactions.

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CONCLUSIONS

In market conditions, the key to survival and the basis for a stable position of an enterprise is its financial security. It also reflects the state of financial resources in which an enterprise, freely maneuvering funds, is able, through their effective use, to ensure an uninterrupted process of production and sales of products, as well as to bear the costs of its expansion and renewal.

Determining the boundaries of the financial security of an enterprise is one of the most important economic problems in a market economy, since insufficient financial stability can lead to a lack of funds for enterprises to develop production, their insolvency and, ultimately, bankruptcy, and "excessive" stability will hinder development , burdening the enterprise with excess inventories and reserves.

Financial security should be considered taking into account those risks that arise both at the level of the economy as a whole, and at the industry level and at the level of the enterprise itself.

For an enterprise to operate effectively, its management must develop a risk hedging strategy, which should include:

1. taking into account general economic risks:
- monitoring and analysis of the exchange rate, interest rates on loans, inflation rates and prices in the economy for specific raw materials, services, energy resources,
- development of response measures to optimize cash flows in terms of the acquisition of raw materials, energy, services
2. taking into account industry risks:
- it is necessary to monitor constant changes in legislation related to this industry,
- revise pricing policy, depending on market conditions,
- analyze the activities of competitors in the sale of identical goods and services
5. at the enterprise level:
- effectively manage assets and liabilities,
- promptly analyze financial indicators of an enterprise: liquidity, turnover, return on sales, assets, equity, and, above all, in case of declining of these indicators, take appropriate effective hedging measures.

BIBLIOGRAPHY

1. CAUIA, A. *Securitatea financiară — componentă fundamentală a securității naționale*. Studii Juridice Universitare. 2020 (2). ISSN 1857-4122.
2. БЛАНК, И. *Управление финансовой безопасностью предприятия*. Киев: Эльга, 2009. ISBN: 978-966-521-256-0.
3. ПАПЕХИН, Р. *Теоретические основы финансовой устойчивости предприятий.* Волгоград: Волгоградское научное изд-во. 2008. ISBN 978-5-534-13505-3.