

## ENTERPRISE RISK MANAGEMENT

## УПРАВЛІННЯ РИЗИКАМИ ПІДПРИЄМСТВА

*The article presents theoretical and practical problems of financial risk management in Ukraine. It is substantiated that small business plays an important role in the socio-economic progress of any country – a potential locomotive of the national economy. Its importance is revealed in a number of economic, investment and social functions. In a social sense, small business contributes to employment; satisfying the consumer demand of the population; development of the middle class; acquisition and development of entrepreneurial skills, realization of human abilities. It has been proven that the application of a complex approach allows predicting individual effects of the enterprise's macroeconomic activity to avoid risks with the use of longitudinal (spatial, panel) data models. The obtained results have practical value for manufacturers and exporters in the management of financial risks. The study also provides recommendations to managers and stakeholders regarding financial risk management mechanisms that can contribute to increasing the efficiency of enterprises and states. The level of external financial risk has been established, which indicates an effective financial risk management policy, which leads to an improvement in the company's financial condition.*

**Keywords:** management, risk, profit, financial security, enterprise activity.

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*У статті представлені теоретичні й практичні проблеми управління фінансовими ризиками в Україні. Обґрунтовано, що малому підприємству належить важлива роль у соціально-економічному прогресі будь-якої країни – потенційному локомотиву національної економіки. Його значимість розкривається у низці економіко-інвестиційних і соціальних функцій. У соціальному значенні малий бізнес сприяє забезпеченню зайнятості; задоволенню споживчого попиту населення; розвитку середнього класу; набуттю та розвитку навиків підприємництва, реалізації здібностей людини. Доведено, що застосування комплексного підходу дозволяє прогнозувати індивідуальні ефекти макроекономічної діяльності підприємства для уникнення ризиків із застосуванням моделей лонгітюдних (просторових, панельних) даних. Отримані результати мають практичну цінність для виробників і експортерів в управлінні фінансовими ризиками. Дослідження також надає рекомендації керівникам і зацікавленим сторонам щодо механізмів управління фінансовими ризиками, які можуть сприяти підвищенню ефективності підприємств і держав. Запропоновано, страхування фінансових ризиків. Основними категоріями страхових продуктів є страхування витрат, врожаю і прибутку. Показані недоліки роботи підприємства. Визначено, що аналіз управління фінансовими ризиками підприємства, надані рекомендації для покращення його виробничої діяльності. Констатовано, що на основі проведеного аналізу виокремлено два види фінансових ризиків підприємства: глобальний зовнішній фінансовий ризик (зовнішньоекономічний та ринковий) та зовнішній фінансовий ризик (інфляційний, відсотковий, валютний, інвестиційний, кредитний), що полегшить процес ідентифікації ризиків та вибір методів їх управління. Процес управління фінансовими ризиками охоплює різноманітні заходи, які в узагальненому вигляді можна представити як послідовність таких етапів: визначення ризиків, їх оцінка, впровадження стратегій зменшення впливу та постійне спостереження за ризиками. Встановлено рівень зовнішнього фінансового ризику, що свідчить про ефективну політику управління фінансовими ризиками, яка призводить до покращення фінансового стану підприємства.*

**Ключові слова:** управління, ризик, прибуток, фінансова безпека, діяльність підприємства.

**Formulation of the problem.** A new level of economic and business relations, the modernization of the corporate management system and the introduction of new information and production technologies require intensive changes in the real sectors of the Ukrainian economy. In this context, problems in risk management and control in modern companies are the most urgent. Solving this problem is a complex multi-criteria task, which makes research work a reality by overcoming various barriers in the following areas: the dominance of conservative models of risk management, which reduce the effectiveness of modern risk assessment and limit managerial vision; transformation of the external and internal business environment, delay in the adaptation of the legal framework and standards regulating activities in the field of internal control, audit and risk management.

**Analysis of recent research and publications.** Since today the financial risks of enterprises are the most threatening and destructive, this necessitates

their further research, study of the essence, types financial risks and management methods them a significant contribution to structural analysis problems of financial risk management enterprises were made by leading economists, financiers, sociologists, politicians, scientists, domestic scientists, in particular: Aleskerova Y.V., Koval N.I., Mulyk Y.I., Antonyuk O. and others.

**Formulation of the goals of the article.** The purpose of the research is risk management enterprises.

**Presentation of the main research material.** Therefore, despite the diversity and depth of research, attention to this issue is due to the fact that financial security issues are often associated and combined with both macroeconomic regulation and corporate finance management issues [6].

Consider how the issue of risk management is reflected in existing theories:

1. Theory of optimal control. Attributive socio-logical a characteristic of any kind of expedient,

reasonable human activity that is carried out in conditions of limited resources and opportunities for choice optimal ways of achieving set goals in conditions of information uncertainty.

2. The theory of systematicity. A static, natural property inherent in any type of expedient activity, which appears as a probabilistic value that reflects the uncertainty in the performance of the key functions of the enterprise, the direction and conditions of which are unclear to the enterprise management.

3. Theory of cyclicity. Crisis phenomena in the economy, which during the active phase lead to a decrease in the rate of economic growth for more than six months.

4. Theory of socio-economic dynamics. Changes in higher-order economic systems may conflict with the interests of individual subsystems. Equilibrium in local markets for products, services and management models largely depends on changes in higher-level systems that may conflict with the economic interests of certain subsystems.

5. Theory of risks. Risk is the result of asymmetry in the distribution of economic information and multisystem effects. Based on a combination of different assessment methods, it is possible to predict with maximum accuracy the structure, scale and level of negative consequences for the following types of risks: consumer, industry, territorial, political, social.

6. Theory of non-equilibrium processes. In balanced systems, risks (a set of threats and opportunities) are deviations from the initial state, which for all elements of the system have the same probability and are equal to the sum of the risks of the subsystems. This theory allows for a more detailed study of the patterns of occurrence and impact of risks.

7. Theory of probability. In dynamic systems, risks manifest differently because different elements of the system have different probabilities. Causal methods used for risk analysis allow to explain their origin and estimate possible losses. The initial

calculation of such losses is carried out using the Bayes formula [5]

8. Based on the analysis, this study proposes a definition of risk as a set of destructive and motivational factors that affect enterprises in specific market and economic conditions in order to fulfill the tasks. When assessing risk, the longer the impact of multisystem factors on economic processes, the more accurately it is possible to predict dynamic probabilities and values (values) of both aggregate and individual risks [4].

Consider the risks that arise as a result of the accumulation of regressive potential. This approach to risk assessment has a rather historical tradition and originates from the theories of historical and technological progress, where the main attention was focused on the study of the destructive consequences of the realization of risks [6].

Let's examine the stages of development of approaches to risk management (Table 1):

Within the framework of the «top-down» approach, a system capable of analysis was formed various risk factors in a single coordinated and integrated environment – corporate risk management. This format is most often used by leading domestic and foreign companies. Existing risk management standards, for example, developed by the Federation of European Associations of Risk Managers (FERMA), are aimed at systematizing the processes of control, evaluation and analysis of risks. The adoption of the standards was necessary to reach agreement on several aspects, including: the terminology used; processes of practical application of risk management; organizational structure of risk management; risk management goals [7].

In this document, risk is defined as «the combination of the probability of an event and its consequences» (ISO/IEC Guide 73). In the absence of an adequate response, the enterprise may face the risk of bankruptcy, financial problems or serious claims

Table 1

**Stages development approaches to management risks of agricultural enterprises**

No	Period	Stages and their features
1	70's XX Art	Initial risk management: management process risk is carried out on micro levels separate persons (experts of planning and financial departments, brokers, consultants).
2	80's year XX Art	Management assets and liabilities on levels treasury
3		Strategic management assets and liabilities on stages implementation planning and control
4	90's year XX Art	Management market risk based development measures control risk in within the framework financial department, appearance functions management "management risk".
5		Management credit risk by control risk in within the framework financial department, development functions "management risks". Mandatory reservation funds for management liquidity and stability
6		Management operational risk by carrying out internal audit, application functions "management risks" and integration in general system management.
7	XXI in.	Corporate risk management (ERM) is based on complex approaches to management risks, management capital, operational management assets and liabilities. Creation of conditions for simulation active dynamic systems risk management.

Source: generated by the authors

from regulatory bodies or government structures. In the methods used to model the behavior under the influence of the mentioned risks, tools for smoothing critical indicators are used today. This technique provides for the construction of a range of frequency quantification of risks on the basis of the received data on risks and events. Thus, it is determined which of the currently existing risks carries the greatest threat. The cumulative effect of the exposure of the risk group is also taken into account [3].

In our opinion, a dynamic approach to research as a basic principle allows us to consider risk as a form of uncertainty of the result, associated, as mentioned earlier, with a special type of economic activity – entrepreneurship.

It is necessary to highlight the characteristic features of risks, the corresponding properties of equifinal risks: hierarchy (predominance and significance of some risks over others in to the general flow of risks); complexity (the ability of various risks to combine, integrate, strengthen or compensate for their impact on the object).

The financial condition is the most important characteristic of the financial activity of the enterprise, which determines the competitiveness of the enterprise and its potential in business cooperation, is a guarantor of the effective implementation of the economic interests of all participants in financial relations: both the enterprise itself and its partners.

Specific (non-systematic) risks are usually not assessed separately by enterprises, their analysis is mainly carried out as part of the assessment of the financial condition, by comparing the indicators of liquidity, solvency and creditworthiness of the enterprise with their normative values calculated from the data of financial statements.

Lets consider indicators liquidity for assessment their dynamics throughout researched period (Table 2).

Coefficient current liquidity - the recommended values are 1-3, as it was discovered by us indicators liquidity in 2021 – 2.86; 2022 – 2.83, in 2023 11.38. Calculated indicators answer norms and mean absence of solvency problems, in 2023 this there is an indicator too tall that will testify to creditors about the inefficient structure of assets that underestimates efficiency their use the dynamics of this indicator indicate a low level of financial risk.

Ambulance liquidity for each hryvnia current obligations falls UAH 0.74 in 2021 and UAH 0.83. in 2022 and UAH 1.01 in 2023 hryvnias highly liquid turnover assets. Normative values of 0.5 and above. In studied period of SFG had no problems with solvency and had enough working capital funds for settlement with a by all obligations.

The indicator of absolute liquidity shows that for each hryvnia of current liabilities there is 0.023; 0.003 and 0.00002 hryvnias of cash and their equivalents. With a normative value of 0.2, it is possible to make an assumption about the insufficiency of the full amount of funds in the Agrana Frut Ukraine.

Agrana Frut Ukraine is liquid, in case necessity able pay off your debts. From another parties, as the main type of activity in Agrana Frut Ukraine there is growing of cereals, then they are high indicators liquidity point to an ambulance sale of goods at nominal value price.

Systemic risks also include risks of loss of solvency and creditworthiness. Solvency means the ability of the enterprise to fulfill its long-term financial obligations (Table 3).

It should be noted that other indicators that also characterize solvency and creditworthiness

Table 2

Dynamics of liquidity indicators of Agrana Frut Ukraine

Indicators	Years			Absolute growth from 2023 to 2020
	2021	2022	2023	
Coefficient current liquidity	2.86	2.83	11.38	+8.52
Coefficient quick liquidity	0.74	0.83	1.01	+0.27
Coefficient absolute liquidity	0.023	0.003	0.00002	-0.022

Source: constructed by the author based on financial reporting data

Table 3

Dynamics of solvency indicators of Agrana Frut Ukraine

Indicator	Borderline value	Years		
		2021	2022	2023
Coefficient financial autonomy	0.5	0.74	0.72	0.9
Coefficient concentration loan capital	0.5	0.25	0.27	0.09
Coefficient financial dependencies	2	1.34	1.38	1.10
Coefficient financial risk	1	0.34	0.38	0.10
Fund return, hryvnias.	↑	2.26	2.61	3.58
Coefficient turnover turnover assets	↑	2.24	2.61	2.66
The duration of one turnover of the turnovers funds , days	↓	161	138	135

Source: constructed by the author based on financial reporting data

were not calculated in this study: the debt capital structure ratio, the long-term borrowing ratio, etc., because Agrana Frut Ukraine did not use long-term liabilities.

During the studied period, the value of the coefficient of financial autonomy of the Agrana Frut Ukraine is higher than its minimum threshold value, at the same time, its values fluctuate. The value of the loan capital concentration ratio decreases annually, and is significantly lower than the limit value. This indicates that loan capital occupies less and less space in the company's balance sheet, reducing the risk. The coefficient of financial risk in 2021–2023 gradually decreases, as the annually reduces the amount of short-term bank loans.

The calculated results of the indicators testify to the sufficient solvency of the Agrana Frut Ukraine. The calculated values of specific (non-systematic) risks enable to obtain high results of its economic activity.

We will determine the relative profitability indicators of the Agrana Frut Ukraine, which will give an opportunity to evaluate the performance of the FG in 2021–2023 (Table 4).

In 2021–2023, the values of profitability indicators decreased, but Agrana Frut Ukraine still demonstrates high economic results. Despite the military events in Ukraine, difficulties with the sale of crop production, Agrana Frut Ukraine received high relative profitability indicators. Of the three studied years, 2021 and 2023 were the most productive in terms of profitability. Indicator equal profitability products in 2023 year compared to 2021 and 2022 increased by 3.1% and 13.1 %, respectively, which testifies to the quality and competitiveness of Agrana Frut Ukraine products. Comprehensive rating financial state of Agrana Frut Ukraine shows that household holds on in discharge farms class and, it enterprises that are financially stable.

As a result of its financial and economic activity, every farm is faced with various types of financial risk. Therefore, the task of Agrana Frut Ukraine management is to assess the impact of these risks on the activity and reduce the level of threat to the functioning of the enterprise. Summarizing the results of the study of the financial and economic condition, assessment of the management of financial resources and assessment of the probability of bankruptcy of the Agrana Frut Ukraine, the enterprise is in good

condition. It should be noted that over the past few years, equity capital has increased by 1.37 times and net profit by 827,000 hryvnias. The company reduced the use of short-term bank loans by 3.9 times; use of loan capital by 2.4 times. At the same time, the profitability of products increased from 27% in 2021 to 30.1% in 2023.

The insurance market is a component of the financial services market, and its development takes place under state regulation. This especially applies to insurance services for the agricultural sector of the economy. More than 140 insurance companies have licenses for agricultural risk insurance, but in fact no more than 15 companies operate in this segment. This is due to the low level of interest of insurers in servicing the agricultural sector. The main categories of insurance products are cost, crop and profit insurance. The advantages and disadvantages of insurance products on the agricultural insurance market are presented in Table 5. We will apply these advantages and disadvantages to our enterprise Agrana Frut Ukraine (Table 5).

Insurance of individual risks is carried out for field crops, in particular winter crops, in particular against complete death in the winter period, as well as against partial or total loss during this period [2].

In addition, winter crops are insured for the entire production cycle. The main advantages are the ability to assess losses separately for each field and the insurance of strategically important crops in the spring-summer period, when there are high risks, such as drought, droughts, rains and hail [1].

Insurance against one specific risk provides protection against only the selected risk, leaving the possibility of crop failure due to other factors. Determining damages is relatively simple, and payment of insurance compensation is prompt.

The advantage of yield index insurance is low cost, transparency and a simplified procedure for assessing losses. However, the disadvantage is that it only protects against selected risks and does not guarantee compensation for losses caused by local factors (such as hail or storms) that do not affect the entire region.

The advantages of agricultural insurance are:

- 1) greater efficiency compared to traditional state programs to support farmers;
- 2) stimulating the improvement of production technologies at the farm level;

Table 4

**Dynamics of profitability indicators of the Agrana Frut Ukraine**

Indicator	Years			Deviation of 2023 from 2021, (+;-)
	2021	2022	2023	
Profitability own of capital, %	19	14.1	16.6	-2.4
Return on working capital, %	24	10.36	17.2	-6.8
Profitability loan of capital, %	51.0	33.9	34.6	-16.4
Profitability production, %	27	17	30.1	+3.1

Source: constructed by the author based on financial reporting data



Table 5

**Advantages and disadvantages insurance products, presented on market insurance**

Insurance product	Advantages	Disadvantages
1. Insurance from several (groups), selected risks	relatively inexpensive product; losses are determined for each separate field; insurance strategically important cultures	are insured risks with low probability onset not are subsidized by the state; low level insurance coating
2. Insurance from one specific risk	relatively inexpensive product; possibility insure only separate fields, and not the whole array cultures; losses are determined on to everyone separate the field	protection is provided only from one risk, whereas culture can to perish from another risk; not are subsidized the state
3. Insurance by index productivity	transparency; low cost; simple procedure definition losses	guarantees protection only from chosen ones risks; lack of maintenance harvest through point risks; slow implementation payments
4. Multi-risk (complex insurance)	protection from complete spectrum risks; are subsidized by the state*; insurance protection is provided on all cycle production	high cost; difficult procedure definition losses; insured all massif cultures, separate fields on insurance not are accepted
5. Insurance by index the weather	definition real equal losses harvest; speed payments	opacity cost harvest; small spectrum risks; not are subsidized the state

Source: created by the authors based on their own research

3) increasing the trust of creditors, which is important for the expansion of agricultural production;

4) ensuring the stability of the financial condition of agricultural enterprises in the long term;

5) promoting the implementation of other risk management initiatives in agriculture.

**Conclusions.** The need to transition to new, improved methods of risk management and active countermeasures is urgent and is reflected in the works of theoretical scientists and practitioners in the field of risk control. Modern risk, taking into account the components that form a risk event, is a highly intelligent, cybernetic system capable of adapting to the conditions of active countermeasures, creating unpredictable forms that are difficult to identify and that have a large potential for accumulating losses. Accordingly, the risk management system should also have similar characteristics, intelligence, adaptability and the ability to self-regulate. Agrana Frut Ukraine is an independent legal entity with lease relationships. Business risk in modern conditions is the probability of non-return of funds spent on the production and sale of products, which depends on the types of human activity and natural phenomena. The calculated data demonstrate a low value of the coefficient of absolute liquidity for the business entity. Based on the analysis of the economic literature, two types of financial risks of the enterprise are distinguished: global external financial risk (foreign economic and market) and external financial risk (inflationary, interest, currency, investment, credit), which will facilitate the process of identifying risks and choosing methods of their management. The level of external financial risk of Agrana Frut Ukraine has been established, which indicates an effective financial risk management policy, which leads to an improvement in the company's financial condition.

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