

STRATEGIC BUSINESS MANAGEMENT: PLANNING AND FORECASTING

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SYSTEMATIC RISK MANAGEMENT OF AGRICULTURAL ENTERPRISES

Summary

Risk management from the standpoint of a systemic approach, which is the most constructive in creating a methodological base for enterprise risk management, a mechanism for developing and implementing solutions in conditions of risk and uncertainty, is considered. An organizational and economic mechanism and a "decision tree" for risk management of an agricultural enterprise have been built. A detailed strategic risk management plan has been developed to ensure stable income of agricultural enterprises. The risk protection strategy of agricultural enterprises in the short term is justified, which is based on moderate risk management, that involves comparing the safety indicators of the enterprise in a dynamic market environment with the probability of occurrence of the corresponding types of risks. It has been established that the methodological principles of the risk protection strategy should be considered: integration with the general management system of the enterprise; the complex nature of the formation of management decisions; dynamism of deviation management; focus on strategic development goals; the option of choosing management decisions. It was emphasized that the risk protection strategy of the enterprise should be aimed at solving the following main tasks: safe and sustainable development of the enterprise; safe formation of a sufficient amount of resources; creation of conditions for achieving maximum profitability at an acceptable level of risk; minimization of the overall risk associated with the operation of the enterprise; ensuring the sustained economic balance of the enterprise in the process of its development. A SWOT analysis of the security of the enterprise's activities was carried out, which allows combining the advantages and disadvantages of the enterprise in the market environment. A multifactorial matrix of enterprise risk management strategies was built, which shows that the studied enterprise of Zhytomyr region and agricultural enterprises of Ukraine occupy a position in

the second quadrant of the matrix, which corresponds to low-level risk and the conditions of a soft risk management strategy. Such a strategy involves the expansion of the existing principles of risk management and professional management solutions.

Introduction

The instability of the market environment, the globalization of commodity markets and the liberalization of trade relations, the high dependence of agricultural production on changing natural factors, the coronavirus pandemic, Russia's military aggression objectively cause situations of uncertainty and risk in the functioning of agricultural sector entities. Agricultural enterprises found themselves in the worst conditions, as their business is tied to a specific territory.

Along with objective factors, the riskiness of the activities of agricultural producers largely depends on the validity and effectiveness of management decisions that are made in conditions of uncertainty. The lack of complete information, the existence of contradictory trends, elements of randomness and other features of management lead to the fact that a significant part of management decisions at enterprises is not of a strategically oriented, balanced nature. In particular, in connection with the Russian aggression, many entrepreneurs stopped or reduced their production, some were completely destroyed by the invaders. The blockade of the Black Sea seriously complicated the export of agricultural products, accordingly, investments decreased, and a number of projects were suspended. Consumer demand for goods and services has decreased, inflation is rampant, there is a certain risk of electricity shortages. All this leads to additional costs and is characterized by high risk of doing business. Therefore, the issue of prevention and leveling of risks is relevant, entrepreneurs should learn to predict events, assess the level of risk, be able to respond to it in time, and implement new methods of risk management.

In order to avoid losses and damages, ensure extended reproduction and stabilization of the functioning of agricultural enterprises, it is necessary to carry out effective risk management at the microeconomic level. Under these conditions, the significance of the use of strategic approaches to the identification and assessment of risks and their preventive management in management increases.

Part 1. Formation of a systemic approach to risk management of agricultural enterprises

The risk factor is an integral attribute of the market economy, since the market provides for the economic freedom of subjects of economic activity, in which the benefit of some may become losses for others. One of the most

risky industries is agricultural production. Agricultural enterprises are characterized by high capital intensity, dependence on natural and climatic conditions, seasonality of production, use of borrowed and borrowed financial resources, which determines the high riskiness of their activities. Therefore, the management of agricultural entities should be oriented towards risk management: their prediction, assessment, prevention and leveling. The functioning of any enterprise as a complex production and economic system is characterized by uncertainty regarding the results of activity. The level of uncertainty depends on the type of activity of the economic entity, its time horizon, the state of the external environment and other factors. The objective conditionality of the risk, when it is impossible to completely avoid it, requires conscious management of it. In this context, the essence of risk, the factors that determine it and the mechanism of its formation require in-depth knowledge.

In practice, this is quite a difficult matter, since the risk has not yet become the object of systematic research and management in agricultural entities. Forecasting risks is complicated due to Russia's invasion of Ukraine, regular shelling of agricultural infrastructure, burning of crops in the fields, grain theft, lack of complete information, existence of contradictory trends, elements of randomness and other features of management lead to the fact that a significant part of management decisions are not has a strategically oriented, balanced character.

Risk in its essence is both a phenomenon and a process. As a phenomenon, risk is characterized by an objective nature and can be both probable and real. Risk as a process in its manifestation depends to a large extent on the actions or inaction of managers, acquiring an objective or subjective character depending on this. Taking steps to identify, assess, and prevent risk reduces its likelihood and averts its reality. The conscious desire to take risks for the sake of obtaining an advantage or a more useful result is a manifestation of the subjective desire of leaders and managers of enterprises. Depending on the degree of validity of management decisions, the risk process based on subjective will can turn into reality with a positive or negative result, i.e., ultimately, it also has a probabilistic nature.

Therefore, risk is a dialectical unity of objective and subjective, probable and real in making management decisions regarding the prevention and elimination of negative effects of controlled and uncontrolled factors of the internal and external environments of the object of management on its current and prospective states. The last is quite significant in determining the risk of agricultural enterprises due to the fact that they are forced to take a number of risk-preventive measures even before the start of the operational cycle. In an economic sense, risk involves, as a rule, losses, as well as profit, profit – under the condition of the ability and willingness to take risks.

The high susceptibility of agricultural enterprises to various risks is determined by the peculiarities of their organizational, economic and production systems. One of these features is the high dependence of production activity on weather conditions. Precipitation and moisture, as indispensable factors in the production of plant products, directly affect both income and loss by economic entities. The action of natural forces causes damage. Natural risks are difficult to prevent, but their impact can be mitigated by implementing preventive management actions, for example by insuring future crops. The second feature of agricultural enterprises, which makes them vulnerable to numerous risks, is a long operational cycle of production. Economic decisions regarding future production are made by agricultural entities long before the start of production. During this period, the market situation may deteriorate: the market situation will change, inflation will increase, resources (material, financial, especially borrowed and borrowed) will become more expensive. But the most vulnerable feature is the criminal actions of the Russian Federation in relation to agricultural products, which exacerbated the global food crisis, which has catastrophic consequences for the whole world.

The technological process in agricultural enterprises has a seasonal nature. So, the need for certain resources exists at a certain point in time – during the sowing or harvesting period. The specified and other stages of the technological process must be strictly carried out at the appropriate time, otherwise enterprises will not receive economic and financial results. In addition, most of the main means of production are used for a short period of time, while having a long payback period. It should be added that agricultural enterprises are quite capital-intensive, on the one hand, and financially unstable and financially deficient, on the other. This determines their significant need for credit resources, the basis for obtaining which are indicators of the company's financial condition.

The specified features of agricultural entities reduce their resistance to risks and require the development of their management methodology adapted to their specifics. For this purpose, a methodological approach to the risk management of agricultural producers is proposed, based on the formation of a complex system of their risk tolerance and risk protection.

Under risk resistance, one should understand the potential of resistance (organizational, economic, resource) to threats and challenges of the organization's environment and maintaining its state of dynamic equilibrium. It is constantly formed in the processes of operational and strategic management of the enterprise and, however, is immanent only in financially stable ones. In our opinion, those agricultural enterprises that are liquid, financially stable and solvent are risk-resistant, because under such conditions they can withstand the risks of non-payment or late payment, changes in the

payment price, increase in loan interest rates, etc. The company manager and the financial manager should take care of issues of risk tolerance formation.

Risk protection of an agricultural enterprise is formed by managers of all functional divisions – production, marketing, financial, sales, innovation, etc. It should be understood as a set of preventive (preventive) measures to reduce the amount of losses as a result of the occurrence of one or another risky event. In other words, it is the readiness (financial, organizational, psychological, etc.) of the enterprise for challenges that arise in its external and internal environment. Such measures include: risk distribution (elimination, reduction of the probability of occurrence and size of a possible loss), its preservation (self-insurance, involvement of external sources of financing to compensate for losses, state subsidies) or redistribution (insurance, hedging, financial guarantees, etc.) and their forecasting for based on the application of probabilistic statistical methods and modeling of management decision-making processes.

Based on the above, the risk protection of an agricultural enterprise in the author's view is a set of measures for planning the future activity of the enterprise and its implementation, taking into account the costs of risk prevention within the break-even level. Establishing an acceptable level of risk (within the break-even limit) should be determined by the ratio of specific total costs and the price of a product unit.

An important role in the formation of risk protection of the business entity belongs to the information support of this management process. Enterprise managers should systematically monitor and accumulate information about changes in consumer demand, the behavior of competitors, activities of intermediaries and suppliers. The immediate environment of the enterprise, with which it has regular and stable business relations, primarily connections and obligations, deserves special attention. Non-fulfillment (or incomplete) fulfillment of obligations, violation or change of terms of cooperation may affect the process of formation of cash flows, which, in turn, may cause loss of solvency. A decrease in cash flows can also be affected by the failure to fulfill the sales plan due to a decrease in demand or the insolvency of customers.

Therefore, having information about threats in the external and internal environments of the enterprise is the first step to identifying the risk, that is, identifying the possibility of its potential occurrence and nature. The nature of the risk is the result of its qualitative analysis. Quantitative analysis of risk (its assessment) involves determining the probability of risk and possible damage from it. The dialectical unity of qualitative and quantitative characteristics of risk is its measure. The risk measure indicates the limit at which a change in quantitative characteristics causes a change in qualitative characteristics and vice versa. So, the measure of risk is a zone within which it can vary without disturbing the dynamic equilibrium of the production and

economic system. The level of risk increases significantly in conditions of political and economic instability. An important characteristic of risk, which is evaluated in the process of its analysis, is the level of risk. According to the definition of V. Vitlinskyi, the level of risk is the ratio of the scale of expected losses (losses) and the amount of property of the entrepreneur [4, p. 11]. The level of risk is determined by the influence of risk-generating factors. It can increase if problems arise suddenly and unexpectedly, the accumulated experience of managing it is insufficient to solve new tasks, the existing order, imperfection of legislation, lack of sufficient information prevent taking measures that are optimal for a specific situation. The level of risk belongs to the real factors of the life of the organization, and therefore must be taken into account when choosing a management strategy. There are a number of management levers that are used to reduce the level of economic risk and form the enterprise's risk protection.

Analysis of risk sensitivity allows to take into account factors of uncertainty and involves measuring the vulnerability of the main indicators of the company's activity to a random change of one or another variable value of the parameter. The most effective way to analyze the sensitivity of a parameter (or object) is to use the elasticity coefficient, which is a measure of the response of one variable (function) to a change in another (argument). The assessment of sensitivity to risk is determined by rating assessment. And, finally, the final stage of risk analysis is the construction of a scale of its degree (critical, high, moderate, low).

Risk identification and its analysis are closely interrelated and involve the choice of a method of exposure to risk in order to minimize losses [3, p. 34]. As a rule, each type of risk can be neutralized in several ways, so it is necessary to carry out a comparative assessment of the effectiveness of methods of influencing the risk. Comparison of efficiency is carried out on the basis of various criteria, including economic, after which they choose a general risk management strategy.

In connection with the complication of the conditions of production and economic activity, the growing diversity of sources and possible consequences of risk, they must be considered in a systematic connection with other factors and parameters of the activity of market subjects.

The multifactorial and diverse risks that befall agricultural producers necessitate, in turn, the need to manage them from the standpoint of a systemic approach. The system approach is the most constructive in creating a methodological base for enterprise risk management. Systemic risk management involves purposeful effects on both the external environment of the enterprise and its internal structure. Such influences are designed to ensure the achievement of system goals and its effectiveness. Management of the organization using a system approach makes it possible to analyze objects of

different nature and complexity from a single point of view, to identify the most important characteristic features of the functioning of the system and to take into account the most significant factors affecting its development. The formation of a systemic vision of enterprise risk problems from the standpoint of the fundamental provisions of systems theory and organization theory will contribute to the development of system management tools embodied in managerial work techniques and able to ensure informed decision-making in conditions of uncertainty and dynamic changes in industrial and economic situations.

In order to implement a systemic approach, it is necessary to form an integrated organizational and economic risk management mechanism of agricultural production entities. Adequate levers needed to obtain answers to the following questions should be reflected in it: What does the company want in terms of strategy? How to achieve this? What possible threats (risks) can cause deviation from the set goals? What internal and external risk prevention tools should be used? How and when to apply them – before, during or after a certain operation or their complex?

The answers to the first question will reflect the objectives of the entity's risk management system. The most important targets of management of agricultural enterprises are profitability, development, competitiveness, strong positions in the market. Each of the specified targets is quite vulnerable to existing risks and threats. The guarantee of their achievement is the risk tolerance and risk protection of the enterprise.

According to the carefully assessed potential threats to the achievement of goals and own capabilities, the agricultural enterprise chooses one of the following risk management structures – specialized, integrated or adapted.

Taking into account the current state of agricultural production entities, the creation of specialized risk management systems in their management structure is unrealistic, taking into account the resulting increase in management costs, on the one hand, and the lack of appropriate personnel training and the difficult situation given Russia's aggression. More encouraging is the prospect of the formation of integrated risk management systems, which involves the performance of risk management functions by specialists of the planning and economic, commercial or production branches of management. Such organization of risk management is acceptable for medium and small-scale agricultural enterprises whose financial situation is satisfactory. At the same time, these functions should be the prerogative of specialists of the highest level of management with their corresponding support, methods and methods of forecasting and avoiding risks.

Agricultural producers can use different types of tools to manage risks. Depending on the goals and conditions of application, agricultural producers can use three main types of management influence tools: management

decisions, private sector services (consulting, advisory services) and government support programs [10, p. 65]. These tools can be used both separately and in combination with each other. However, the priority should belong to the management decisions of the enterprises themselves regarding one or another aspect of risk. This requires increasing the efficiency of enterprise management in terms of cost and income analysis, production and marketing strategies, product quality management, organizational changes, etc.

In some cases, in order to prevent risk, agricultural enterprises can use the services of the private sector in the form of consulting, financial, marketing, information and intermediary services. A similar approach is common in Canada, where agronomists, veterinarians, etc. act as credit managers of banks that cooperate with clients. They are able to properly control the production process of the client company, provide consultations, and in the event of a risky event, take the necessary measures to minimize its consequences in a timely manner. Some banks use this approach in order to improve the quality of loans to agricultural producers.

Intermediary services are quite important for producers of agricultural products. At the same time, manufacturers can combine their efforts and resources, organize their own structures to perform the functions of intermediaries. This approach requires funds, time and direct participation of interested producers.

A significant role in leveling the risks of agricultural enterprises belongs to the state, which influences them through the implementation of various state support programs. These programs include:

- subsidizing programs for crop insurance and lending to producers;
- creation of reinsurance funds, funds to cover losses caused by catastrophic events;
- state intervention measures to stabilize prices for agricultural products, producers' incomes and ensure food security;
- inspection services to ensure the proper quality and safety of products;
- programs to stimulate demand (purchases from reserve funds, export credits, market development);
- programs for the development of transport and distribution infrastructure;
- research activities, information and consulting services.

In particular, on April 7, 2022, the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine Regarding the Creation of Conditions for Ensuring Food Security in Martial Law" entered into force. However, state support programs for agricultural producers are short-term in nature. In addition, they have a limiting effect on the development of a competitive environment and equal conditions for all market subjects and long-term structural changes in the agricultural sector.

The state also affects the stabilization of agricultural production by making infrastructure investments (transportation network, processing facilities, etc.) and developing export markets. It should be noted that the state's regulatory policy and legislation are characterized by inconsistency and partiality, which adds risks to agricultural enterprises. The lack of long-term price benchmarks, the underdevelopment of the stock market, and limited state budget funds become price benchmarks for grain traders, who compensate for the cost of price risk at the expense of agricultural producers. An additional factor of instability is the uncertainty with the return of value added tax on grain export contracts.

Thus, the systematic approach to risk management of agricultural enterprises should be based on the fact that all processes and phenomena are considered in their cause-and-effect relationship, taking into account the impact of individual elements and decisions on the system as a whole. The expediency of the system approach is associated with the growth of costs for monitoring and risk management at all hierarchical levels (state, region or industry, enterprise). These costs increase the costs of production, reduce its efficiency and worsen the position of the business entity on the market.

Based on this, we offer the main systemic principles of risk management organization, which should be based on the organizational and economic risk management mechanism of agricultural enterprises.

1. Synchronous forecast and assessment of all possible threats and risks of the enterprise's economic activity (weather, military, entrepreneurial, market, price, etc.) in a specific mode of place and time, since the inability to protect against one of them threatens the security of the enterprise as a whole.

2. Risks of different nature and different origins related to one project or operational area should be considered as a single set of destructive factors affecting the consumption of resources and efficiency.

3. Assessment of the ratio of probable resource costs and achievement of the probable effectiveness of the enterprise's risk protection against threats characteristic of different hierarchical levels of its environment. Giving preference to risks of one or another hierarchical level will reduce the safety of the risk protection system as a whole.

4. The need for risk management at various stages of the product life cycle and the enterprise life cycle in their interconnection and interdependence.

5. The preparation, implementation, calculations and accounting of the operations of the enterprise must precede their implementation, in order to make sure of the payment capacity of the partners, if necessary, to apply preventive preventive risk measures (for example, insurance – except for military risk), to assess transport risks, etc.

6. Evaluation of existing alternative possibilities for the use of certain limited resources for the prevention (avoidance) of risk according to the "cost-

effectiveness" principle and the selection of the most attractive alternative or their combination.

7. The system of management levers for risk regulation should include legislative, economic, financial, constructive technological, technical, organizational and environmental measures, balanced by the intensity of implementation, costs and effectiveness.

9. The need to analyze and take into account the risks of management itself: determining goals, ways and means of their achievement, planning, organization, motivation, control, etc., since there is always a dilemma between the desire for security, the resources necessary for this, and subjective assessments.

10. Risk management should include strategic, tactical and operational strategies.

11. Taking into account the role and importance of the human factor in the processes of risk management – competence, propensity to take risks, creativity, etc.

The above systemic principles of risk management of agricultural enterprises dictate the need to change the nature of enterprise management itself. Instead of reacting to the negative end results of management, it is necessary to practice management by deviations and situational as varieties of strategic management. Management of deviations involves the recording by the management body of fluctuations in typical (for example, natural) or predetermined indicators of the operational and financial and economic activity of the enterprise and taking measures to eliminate them. Effective monitoring and management of emerging issues should focus not on details, but on identifying, monitoring and managing deviations from key processes. Such a system of managers' activity should bring to the attention of top management only those signals that require his personal attention. That is, the management system for deviations is aimed at freeing up the manager's time to fulfill the company's strategic tasks. At the same time, some of the problems caused by deviations can be handled by subordinates, and some require the intervention of the manager himself.

Deviation management technology should include the following elements (Fig. 1). Information about the current situation at the enterprise is obtained through observation and monitoring. Monitoring involves control of the state of the external and internal environments of the enterprise, which are the sources and "field" of the manifestation of risks. Based on them, an information database is formed regarding the factors and frequency of risk situations. Risk identification includes recording existing and possible deviations in the near future, their level and probability. Measurement is the quantification of deviations in various activities, without which it is impossible to identify problems that require intervention.

Comparison of the actual state of affairs with the planned provides a comparison that allows you to focus on one or another problem and bring it to

the appropriate level of management. The analysis of the evaluations obtained in the process of measurement, which is based on the understanding of the tasks of the enterprise, allows to extrapolate the identified trends for the future, that is, to forecast them. Knowing the criteria for achieving the company's goals allows selection of problems (deviations) that require a response from the side of managers. The final stage in the deviation management technology is the adoption of a management decision.

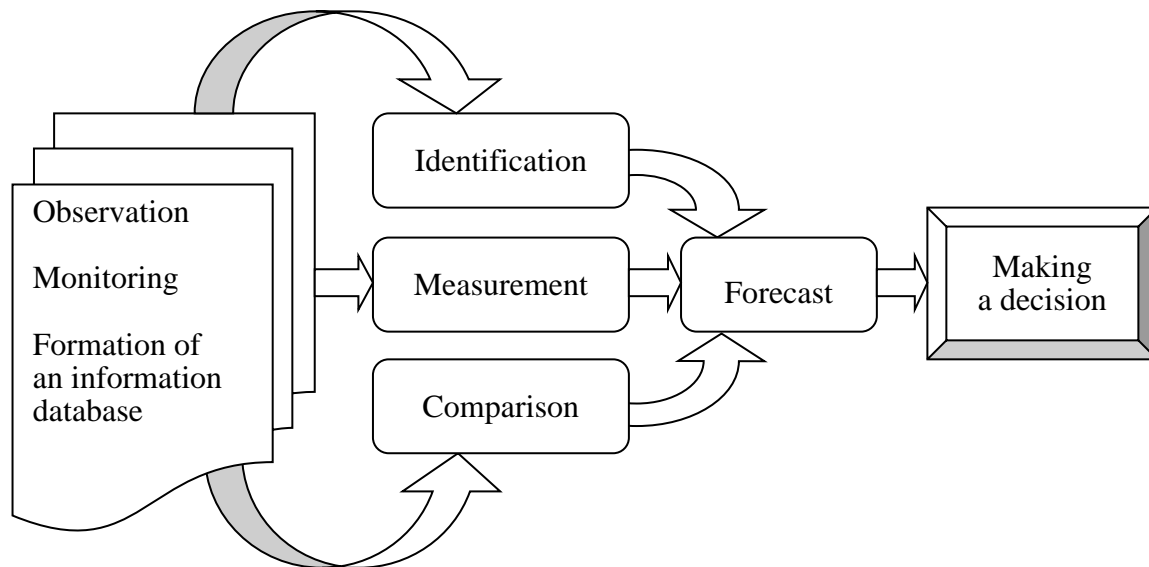


Figure 1. Methods of deviation management technology

Source: developed by the author

Decision-making ensures the concentration of resources on the most important deviations, adjustments, standards for evaluating business information in connection with a change in the situation, restoring control over the course of events, using the opportunities that open up, saving the work of the manager, increasing the efficiency of the use of qualified employees, improving interaction between departments.

Implementation of the risk management process of agricultural enterprises on a systematic basis requires a clear framework for its regulation. The relevant standard should be a regulatory document in enterprise risk management. In practice, entrepreneurs provide anti-risk measures in their production, financial and other plans. Such regulation of the risk management process is only partial, as it is not carried out in line with a single anti-risk strategy. There are a number of standards for introducing a scientifically based approach to enterprise risk management in global practice. The most famous of them are COSO-ERM-2004 (Integrated Organizational Risk Management Model), which covers the largest range of risks, taking into account the concept of balance of income and risk; A Risk Management Standard. 2002.

Risk Management Standard; Principles and guidelines on implementation (ISO 31000:2009). Risk management, etc.

Their application should be based on constant monitoring and control, which increases the costs of this process. The possibility of applying this standard in the practice of risk management of agricultural enterprises is limited, since such a document must be adapted to national and industry specifics. First of all, basic terminology needs to be developed. Domestic legislation in terms of risk management is insufficient and non-specific. In addition, there is no systematized database on risk situations in the activities of agricultural entities, information technologies and personnel support for its analysis and generalization. The adoption of the Standard adapted to national specifics should also be preceded by the agreement on some issues of the use of uniform terminology, regulation of the process of practical application of risk management, organization of management, definition of goals, etc.

The implementation of the standard involves the development of a sequence of its stages and methods of practical use. It should reflect such issues as the methodology of risk identification, analysis and assessment, the optimal (acceptable) level of risks for enterprises in the industry, methods of risk management, forms of accounting and reporting on the results of risk management, as well as those responsible (persons, units) for their implementation. The formation of the risk management standard should be based on the peculiarities of the organizational structure, size, forms of ownership and organizational and legal forms of economic entities. Such aspects make it possible to standardize the effective communication of the company's managers regarding risk management, to determine the possibilities of delegating duties to different levels of management, and to distribute responsibilities and powers.

The development of the standard lays the foundations for the formation of a complete, integrated enterprise risk management system, including the legal framework, and creates the basis for the development of programs as an enterprise risk management tool. It should be emphasized that the development of the standard of risk management of agricultural enterprises is the prerogative of macroeconomic regulatory bodies, on the basis of which the relevant regulatory and legislative documents will be adopted.

The considered elements of the risk management system of agricultural enterprises are logically completed by the organizational and economic mechanism as the driving force of this system. It is a set of organizational, economic and information measures, targeted influences and specific tools of such influences, aimed at prevention (avoidance), leveling (reduction of the level) or distribution of risk in order to ensure risk resistance and risk protection of enterprises (Fig. 2).

The organizational and economic mechanism of risk management acts, on the one hand, as a concrete expression of objective economic laws that are formed under the influence of the economic policy of the state. On the other hand, the organizational and economic mechanism is a system of interrelationships of economic phenomena that arise under certain conditions under the influence of a certain impulse. The role of impulses is played by increased uncertainty or government regulation, situational changes in the external and internal environment of the enterprise, innovations, market conditions, etc.

Based on this, the organizational and economic mechanism of risk management of agricultural enterprises should be understood as a system of deliberately established forms, methods and tools of planning, organization, management, financing, incentives, crediting, pricing, accounting and control, based on the above-mentioned principles in accordance with the goals and tasks of risk resistance of the enterprise. The elements of the organizational and economic mechanism of risk management are in a logical relationship and interdependence between themselves and the external environment and are designed to respond to changes and adapt to changing environmental conditions and achieve the maximum final result. The functioning of such a mechanism is able to ensure quick and skillful maneuvering of available resources and ensure stability, flexibility, mutual reinforcement (synergy) of its elements and achievement of new quality.

The decisive role in the process of risk management is played by the managerial decision crystallized as a result of the above technology. Adequate, multiplicative (synergistic) and inadequate decision options can be distinguished according to the predictive effectiveness in risk management. Adequate options for risk solutions are those in which the efficiency of resource expenditure per unit of the obtained effect in risk management corresponds to the norms and standards adopted for the industry and type of activity.

Multiplicative (synergistic) variants of risk-solutions lead to a sharp increase in the efficiency of spending resources on risk management, i.e., obtaining a pronounced benefit from the prevention (avoidance) of risk. Such decisions are usually connected with the introduction of the latest technologies, equipment, and organizational innovations. The positive results of such decisions implemented in the sphere of production, sales, labor organization, reengineering of the enterprise structure, etc., find a mandatory manifestation in the sphere of finance.

Inadequate are such variants of management decisions that do not ensure obtaining a regulatory effect from funds invested in risk management. The reasons for this may be untimely decision-making (or its implementation), lack of resources, weak organization, motivation, force majeure, etc.

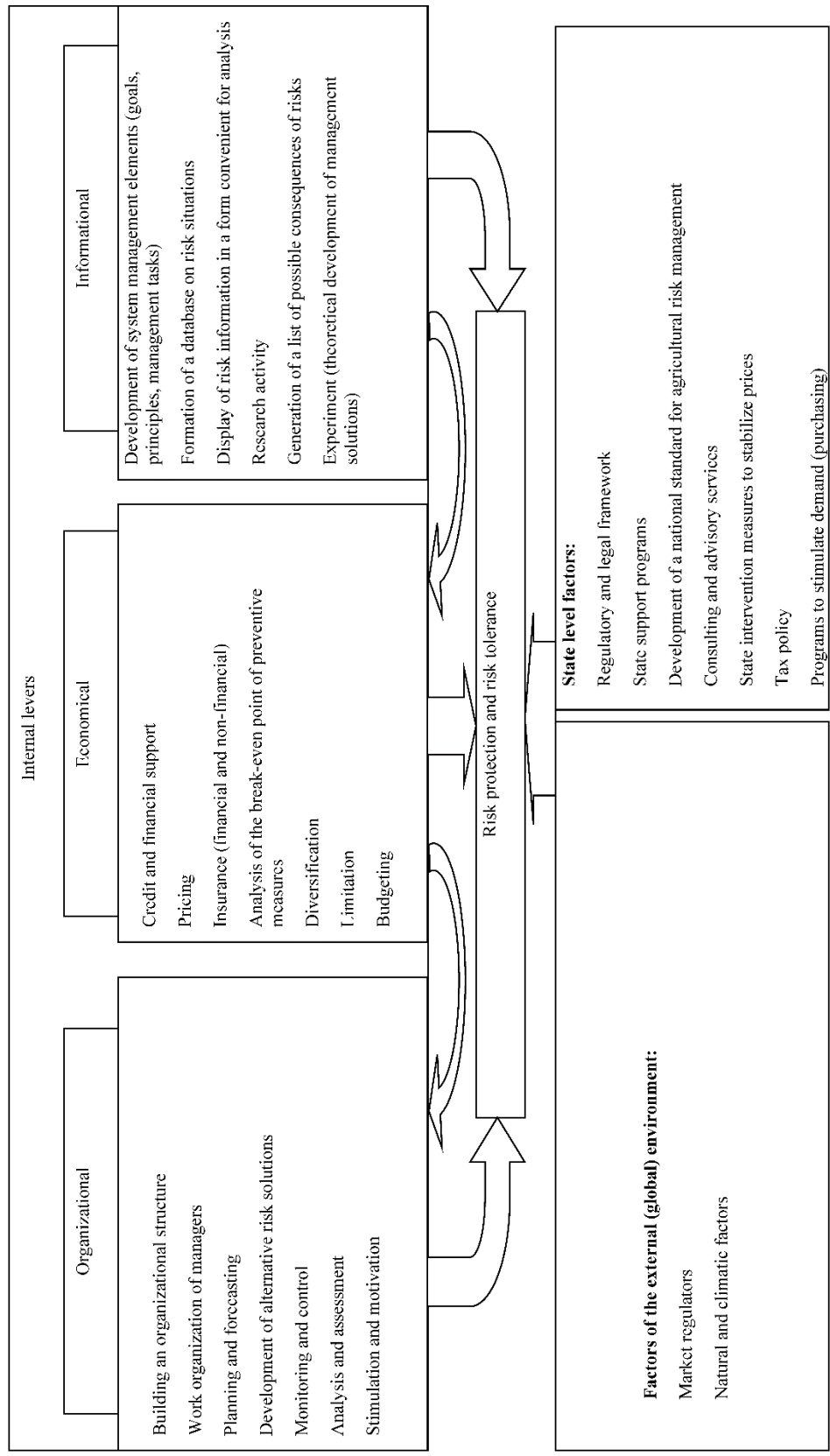


Figure 2. Organizational and economic risk management mechanism of agricultural enterprises

Risk-decisions are made, as a rule, on a real time scale and are implemented quite quickly. For example, making a decision to start sowing agricultural crops in the presence of deviations in average monthly temperatures or moisture, or harvesting, will have the character of a "crisis decision". It is accepted at the moment that corresponds to the transition of the control object to the area of uncontrolled or unacceptable states.

Part 2. Strategic directions for the development of risk protection of agricultural enterprises

The market system of transformation of the economic mechanisms of doing business is determined by the change in the forms and methods of enterprise management, which allow to adapt it to the dynamism of social reproduction. For this, the enterprise needs, first of all, to fully consider changes in the competitive environment, which are potential threats and future opportunities, as well as predict uncontrollable environmental factors, in order to eliminate their negative impact on the enterprise.

For the integrity of the enterprise's economic system, it is important to make economic decisions regarding the strategic prediction of risks and their management. The protection of the enterprise from the negative influence of external and internal factors is a guarantee of its sustainable functioning. At the same time, risk management of agricultural enterprises should be carried out according to certain successive stages related to the identification of risk, its quantitative and qualitative assessment, development of possible ways of avoidance or mitigation, monitoring of risk situations and analysis of post-risk results.

The methodology for choosing an acceptable risk strategy is based on the construction of a "decision tree". A "decision tree" is a graph that forms rules in a hierarchical sequential structure, where each object corresponds to a single decision node.

When building a "decision tree", the entire set of data is first taken (in particular, about the enterprise's activities and possible risk), which is represented by the original or root vertex. Then the rules (methods) of dividing the entire set of records and options corresponding to the root node into branches are determined. Nodes corresponding to a subset of records and options are marked on the branches of the "tree". At each node, the rules of division into "branches" are determined again, and so on, until the process reaches the final nodes, which are sometimes called "leaves".

Rules or ways of dividing sets of records or options are called decision rules, which are actually logical structures "if ... then ..." and divide the set under analysis into several groups. As you go down the "tree" from the top to the "leaves", more and more filtered homogeneous sets are created that satisfy a specific set of conditions formulated at the nodes of the "tree".

In this regard, "decision trees" are often used to model "multi-stage" decision-making processes in which interconnected decisions are made sequentially. In particular, in risk management, near the top of the "tree" is the enterprise itself with all its types of activity and directions of its distribution (Fig. 3). At the same time, the constant regulated and unregulated influence of the external environment and internal factors are taken into account.

External unregulated risks complicate the process of economic (operational) activity. External regulated risks pose a threat to the successful state and status of the enterprise as a whole. Since the impact of risks in both the first and second cases ultimately acquires a financial (monetary) expression, the second block (stage) of the "decision tree" should be an analysis of income and expenses associated with the probable occurrence (non-occurrence) of risk events.

The proposed risk management decision tree has 5 types of nodal points (blocks) in which a decision is made regarding the next management step. "Branches" emanating from the decision-making node are "branches" of decisions. Each of them represents one of the possible alternatives or options for actions that are possible in this node. The set of alternatives is mutually exclusive (if one alternative is chosen, the other cannot be chosen) and collectively exhaustive (all possible alternatives are included in the set).

Thus, the sequence of the risk management process will be determined by five interconnected blocks (Fig. 3).

In the first block, which includes the analysis of income and expenses, science and practice have developed such effective methods and methods of analysis as determining the break-even point, levels of operating and financial leverage, factor, correlation, SWOT-analysis, etc. Their use provides the possibility of objectifying assessments for making a management decision.

Analysis and comparison of probable gains and losses provides grounds for establishing the degree and level of risks (block 2), assessing the expediency of managing them and choosing management tools – transfer, distribution, avoidance, etc. (block 3). After the selection of risk impact tools, the effectiveness of their application is evaluated (block 4). The argument regarding the nature of the decision and its final adoption is the determination of the possible final result (block 5). At the same time, if the value of the net profit of the enterprise is equal to the difference between the profit received and the costs of risk insurance, then this version of the decision gives reasons to consider it adequate. When the net profit is the sum of all partial profits, the adopted decision turned out to be multiplicative (synergistic).

Thus, risk management of agricultural enterprises should be carried out according to certain successive stages related to the identification of risk, its quantitative and qualitative assessment, development of possible ways of

avoidance or mitigation, monitoring of risk situations and analysis of post-risk consequences.

Within the framework of the risk assessment procedure, in order to establish adequate management tools, first of all, potential adverse situations should be reliably assessed. Such an assessment can be carried out both in terms of individual types of risk or different areas of activity, and in the aggregate of all possible risks. At the same time, a general assessment of the population will provide only general information, while a detailed assessment allows specifying not only risk factors, but also tools for managing them.

Risk prevention methods are used when it is possible to clearly and concretely identify and measure (evaluate) its sources. Having singled out the most economically dangerous area of risk, the enterprise can control it and, thus, reduce the level of possible risk as much as possible. In particular, risk prevention is possible with regard to production risk, since the mechanism of its management involves detailed monitoring and planning of activities with the specification of possible costs, revenues and final results. In addition to production risk, the prevention mechanism can also be applied to investment and innovation risks.

The most effective methods of risk prevention include the use of strategic planning in the company's activities, which covers all its areas. This tool makes it possible to prevent the weakening of the company's position, identify its risk factors and, accordingly, develop a set of compensatory measures, a plan for attracting and using reserves.

Risk reduction is a reduction in the probability of its volume and associated losses. Such flexible management tools as risk prevention, diversification, limiting, self-insurance, hedging, etc. are used to reduce risk.

Risk is also reduced by sharing the overall risk among other stakeholders through vertical or horizontal integration. Thus, joint-stock companies, financial and industrial groups, associations, concerns, etc. can be created for the purpose of observing a unified price policy, carrying out purchasing and sales activities, etc. In some cases, it is possible to distribute the overall risk over time or by individual stages of the production process.

To reduce the risk, agricultural enterprises practice diversification, which may involve diversification of production types, product range, processes of purchasing raw materials and materials, sales markets, sources and directions of investment, financing, lending, etc. Diversification is the dispersion of risk, but it cannot completely cancel it. This is due to the fact that entrepreneurship is influenced by external factors unrelated to the choice of specific objects of diversification, therefore, it does not affect them.

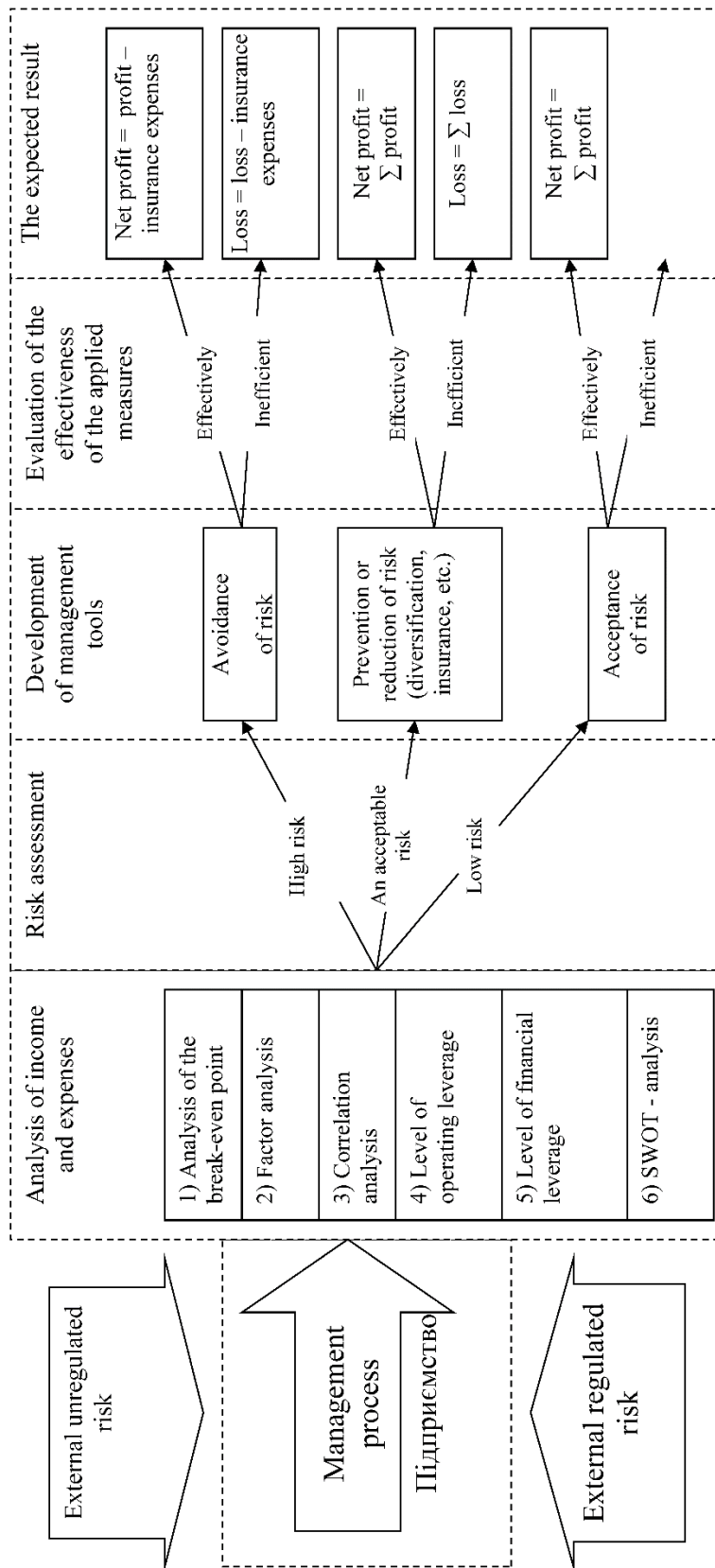


Figure 3. «Decision tree» or risk management of an agricultural enterprise

Source: developed by the author

Special attention should be paid to such a tool as limiting, that is, setting the maximum amount of expenses, volumes of purchases, sales, financing, lending, etc. Limits are set for each type of inventory, cost item, type of production, changes detected in the production process are flexibly adjusted, which leads to increased control and clear organization.

A promising and fairly reliable risk reduction tool (except for the military one) is insurance with insurance companies, to which a certain part of the risk is transferred for a separate, specific fee. Insurance as a risk management tool is not only a reliable protection against possible adverse consequences, it also improves the quality of enterprise management, as it requires careful analysis of the possible development of events and constant preventive control of the insured object in accordance with the insurance contract.

Since the agricultural insurance market in Ukraine is not sufficiently developed, and agricultural enterprises have mostly low solvency, the mechanism of agricultural insurance needs significant improvement. One of the ways to improve agricultural insurance can be the creation of a state insurance company that would undertake the insurance of high-risk agricultural enterprises or reinsurance of private insurance companies that provide insurance services to farmers.

Each of the characterized risk management tools requires appropriate resource support – financial, personnel, and informational. The specified types of resource provision and their combination can have both a positive (stimulating) impact on avoiding losses from risky events and increase costs. In the conditions of the difficult financial condition of agricultural enterprises, it is advisable to compare the management decision regarding one or another reaction to the threat of risk with the break-even point of economic activity.

The volume of sales of the company's products, at which revenues are equal to costs, and the company has neither profit nor losses, is called the break-even point. A synonym for this term is the break-even point. The calculation of the break-even point, taking into account the costs of risk insurance in the variable costs of agricultural enterprises of the Zhytomyr region, is shown in Table 1.

A number of notations were used in the calculations, where $NP_{o.a.}$ – net operating income; $NP_{o.o.}$ – net income from other operating activities; $NP_{f.a.}$ – net income from financial activities; $NP_{i.a.}$ – net income from investment activities; $NP_{e.e.}$ – net income from extraordinary events; $CR_{o.a.}$ – cost of operating activities; $OB_{o.a.}$ – operating costs of other activities; AE – Administrative expenses; SE – Selling expenses; $EE_{f.a.}$ – expenses of financial activity; $EE_{i.a.}$ – expenses of investment activities; $EE_{e.e.}$ – expenses from extraordinary events; $IT_{b.a.}$ – income tax from business activity; BB_{π} – costs of the enterprise.

Table 1

**Calculation of the break-even point of agricultural enterprises
of the Zhytomyr region, taking into account the costs of risk prevention**

Net income, thousand UAH					
Indicator	2017	2018	2019	2020	2021
Performance indicators of the enterprise according to the report on financial results					
NP _{o.a.}	729975	801995	904352	1295321	1850143
NP _{o.o.}	92852	122442	91212	147355	142183
NP _{f.a.}	12959	24194	9742	13299	6238
NP _{i.a.}	14563	20866	23482	26515	32582
NP _{e.e.}	-	-	118142	-	-
Разом (NP _p)	850349	969497	1146930	1482490	2031146
Expenses, thousand UAH					
CR _{o.a.}	644437	697670	790972	1077068	1217877
OB _{o.a.}	32914	55284	52716	73079	130991
AE	48569	61062	64835	77992	78028
SE	3853	5472	9597	16039	21743
EE _{f.a.}	19788	30486	30272	29634	16475
EE _{i.a.}	14207	16914	22766	31304	71555
EE _{e.e.}	4677	2538	1999	9465	8215
IT _{b.a.}	183	517	354	503	739
Разом (CE _e)	768628	869943	973511	1315084	1545623
Net profit	81721	99554	173419	167406	485523

Source: developed by the author

The results of the calculation show that the agricultural enterprises of Zhytomyr region as a whole operate profitably. The total amount of net profit during the research period increased from UAH 81,721,000. (2017) up to UAH 485,523 thousand (2021), that is, more than 5.9 times.

At the same time, fixed costs varied from UAH 52,422,000. (2017) up to UAH 99,771 thousand. (2021), i.e. increased by 1.9 times. Their share in the total costs of enterprises changed from 6.8% to 6.4%. Variable costs increased by 2 times during the studied period, and their share in the total costs of enterprises was 93.2% (2017) and 93.6% (2021).

In order to identify reserves for improving the company's financial results, it is advisable to specify the assessment of the level of economic security of the company, the calculation of which indicator is contained in Table 2.

The calculations show that the break-even activity of enterprises in 2017 was ensured by net income in the amount of UAH 332,309.5 thousand, and in 2021 – UAH 346,235.3 thousand. That is, the break-even activity of enterprises in 2021 was ensured by net income, which was 4.2% higher than the level of 2017. The level of economic security of agricultural enterprises during the study period increased by 22% – from 60.9% (2017) to 82.9% (2021).

Table 2

**Assessment of the level of economic security of economic activity
of agricultural enterprises of Zhytomyr region**

Indicator	Calculation algorithm	2017	2018	2019	2020	2021
Fixed expenditures, thousand UAH	AE +SE	52422	66534	74432	94031	99771
Variable expenditures*, thousand UAH	CE _e -FE _e	716206	803409	899079	1221053	1445852
Gross profit, thousand UAH (GP _e)	FC _e +NP _e	134143	166088	247851	261437	585294
Gross profitability of net income, thousand UAH (PG _{ni})	GP _e : CE _e	0,1577	0,1713	0,2161	0,1763	0,288159
Cost intensity of net income according to variable costs, UAN	VC _e / CE _e	0,8422	0,828686	0,7839	0,8236	0,711841
Net income, which ensures break-even activity, thousand UAH (NI _u)	FC _e / PG _{ni}	332309,5	388375,5	344433,9	533206,9	346235,3
Variable expenditures that ensure break-even activity, thousand UAH (VC _u)	NI _u * FC _{ni}	279887,5	321841,5	270001,9	439175,9	246464,3
Coefficient of economic security, thousand UAH	CE _e – NI _u / CE _e	0,6092	0,5994	0,6996	0,6403	0,829537
Security level, %		60,9208	59,94051	69,9690	64,0330	82,9537

Note: Variable expenditures include risk prevention costs.

Source: developed by the author

The essence of the break-even analysis is revealed in more depth on the break-even graph (Fig. 4). Using it, you can determine the degree of influence of changes in production volume on the amount of profit, if all other factors remain unchanged. On the horizontal axis of the graph – the volume of produced products in natural terms, and on the vertical – the amount of income or expenses in value terms.

The analysis of the break-even point is reduced to the determination of the minimum volume of product sales for which the company can ensure break-even operating activity in the short term.

As can be seen from fig. 4, in 2021 the break-even point was only UAH 346,235.3 thousand, i.e. it decreased by 35.1% compared to 2020. The use of the break-even point analysis has proven that the conditions for the functioning of agricultural business entities are constantly becoming more complicated, carrying with them growing risks and threats, to overcome which enterprises are forced to spend additional funds.

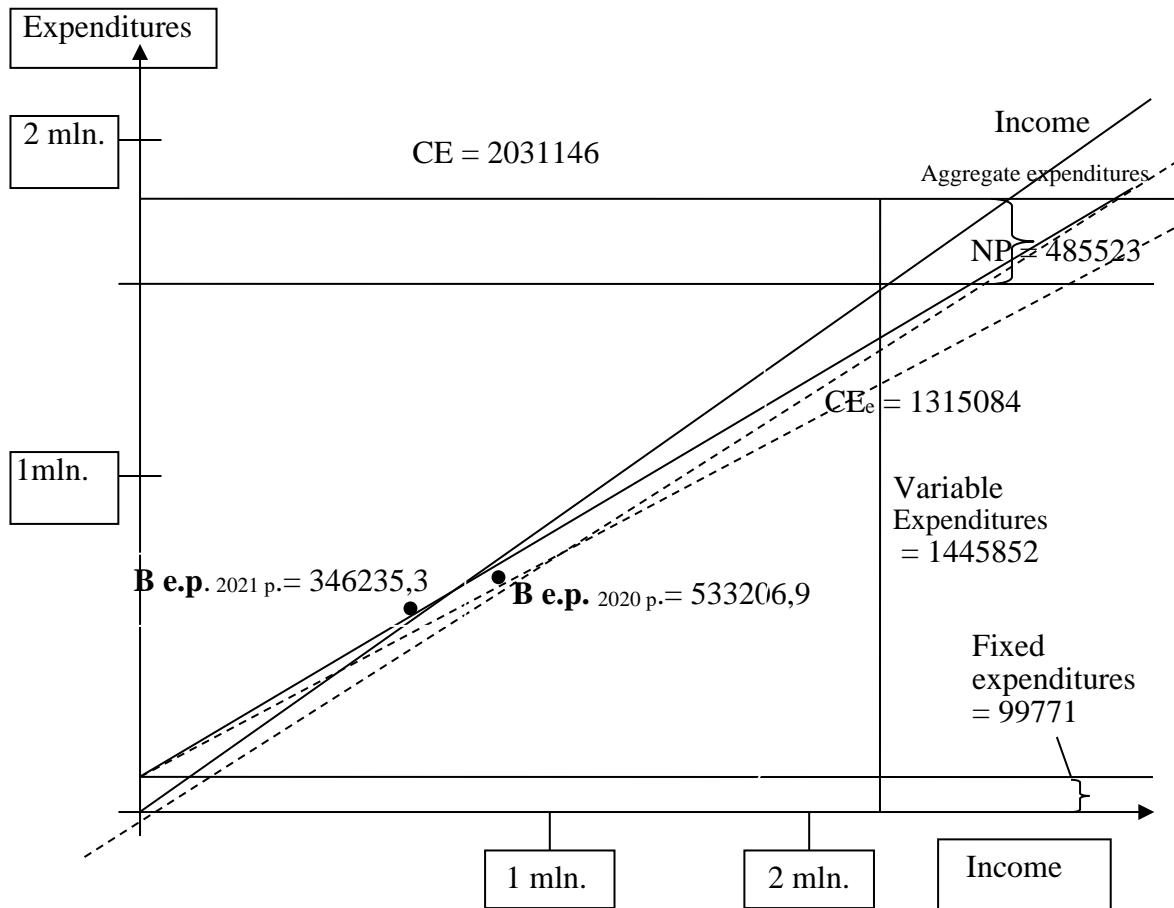


Figure 4. The break-even point of agricultural enterprises of the Zhytomyr region, taking into account costs for risk prevention, 2020–2021 years

Source: developed by the author

It is also worth emphasizing such an important aspect of agrarian risk management as the formation of a system for improving the qualifications of the personnel of agricultural enterprises, which must be prepared for the use of methods, techniques and technologies for identifying and assessing risks, making decisions on risk management issues. Trained employees are able to identify risk in a timely manner, develop effective measures to respond to it, which will strengthen the risk protection of enterprises.

Therefore, a complex situational approach to enterprise risk management involves taking into account each of the identified risks, which is especially relevant in a dynamic, contradictory and unpredictable market environment.

Risks arising in the external and internal environments of the functioning of agricultural enterprises have a total impact on any of their spheres of activity. In order to achieve the effectiveness of risk management, it is necessary to carry out qualitative and systematic management of the enterprise as a whole, since

risk management is an integral element of the overall management system. In this context, risk management decisions should be made in close connection with the general strategic and tactical goals of the enterprise, its financial condition, the estimated level of possible risk and should be carried out on the basis of a well-founded strategy.

Traditionally, strategy is defined as a detailed comprehensive plan designed to implement the mission of the enterprise and achieve the set goals. The main directions of the company's development and management strategy also determine the choice of risk protection strategy. The main structural blocks of the risk management strategy (tasks, principles, methods, functions and mechanisms) are built in accordance with the general direction of the enterprise's development. Thus, the strategic functions of risk management are: economic security and development of the enterprise, maximization of profit and its market value, growth of business activity and maintenance of a high business reputation of the enterprise. Tactical functions are: maintenance of traditional areas of activity and safe expansion of new ones, effective investment and development of innovations, monitoring and regulation.

Methodological principles of the risk protection strategy should be considered: integration with the general management system of the enterprise; the complex nature of the formation of management decisions; dynamism of deviation management; focus on strategic development goals; the option of choosing management decisions.

In accordance with the general strategy of the enterprise and risk management methodology, the risk protection strategy of the enterprise should be aimed at solving the following main tasks:

1. Safe sustainable development of the enterprise.
2. Safe formation of a sufficient amount of resources that will ensure the necessary rates of economic development of the enterprise.
3. Creating conditions for achieving maximum profitability at an acceptable level of risk.
4. Minimization of the total risk associated with the functioning of the enterprise.
5. Ensuring the sustained economic balance of the enterprise in the process of its development.

Principles are the main mandatory rules of management, which are guided by managers when a possible risk is identified. These include the following:

1. Adequate assessment of risk consequences is no less important than possible benefits. This rule makes it possible to weigh all the positive and negative aspects of the existing risk and make a positive decision only if the advantages outweigh the disadvantages.
2. The unreasonableness of a high risk for a small benefit. It is a well-known statement that the greater the planned profit, the higher the level of risk

associated with obtaining it. However, in agriculture, even small incomes can be associated with a high risk for the company's activity, since there are many external independent risks in this area, such as weather, political, etc. As a result, an insufficiently substantiated decision can lead to significant losses and the loss of the company's financial and economic position.

3. Thorough search for alternative ways of developing the situation. In many situations, the development of events is possible according to several scenarios. The more such scenarios are established and detailed, the higher the probability of identifying the optimal option – with a high profit and an acceptable level of risk.

4. Categorical rejection of risk that exceeds the size of the company's own capital. In the case of a consequence of taking a risk that threatens the financial condition, the enterprise may lose not only its financial position, but also cause the threat of bankruptcy, so the critical "threshold" of the accepted risk should be the amount of equity capital.

5. The risk should be accepted only in case of full confidence about its low threat. Agriculture is characterized by specific terms of operational and financial cycles, therefore the payback of the invested capital in the vast majority occurs in a period of more than one year. In this regard, accepting a high risk with long-term payback threatens the crisis state of the entire enterprise for a period of more than 1 year. In order to preserve stable development, decisions should be made regarding risky projects only with confidence in the low probability of its occurrence.

Any decision made requires the development of a detailed strategic risk management plan, which can be implemented using the enterprise's multifactorial risk management matrix. This method is based on a comparison of the security indicators of the company's activity in the field of a dynamic market environment with the assumption of the occurrence of the corresponding types of risks. At the same time, the assessment of the safety of the activity of a separate business entity or the industry as a whole can be carried out with the help of a SWOT analysis, which makes it possible to combine the advantages and disadvantages of the enterprise in the market environment.

Among the most significant indicators of the safety of agricultural activity, the following can be distinguished: growth (decrease) in productivity; increase (decrease) in livestock and poultry productivity; increase (decrease) in sales revenue; increase (decrease) in cost price; exceeding the rate of revenue growth over the rate of cost growth; growth (decrease) in the company's property; increase (decrease) in current assets; increase (decrease) in current liabilities; increase (decrease) in equity; reduction (increase) of turnover periods of current assets; profitability (loss) of production and balance sheet liquidity. Thus, taking as a basis the outlined indicators and their values for the studied period

from the consolidated reporting of agricultural enterprises of the Zhytomyr region, a matrix of SWOT analysis was formed (Table 4).

The distribution of indicators in the fields of the matrix is based on the principle of identifying positive or negative trends. In order to determine the final score, each determined indicator of the SWOT analysis is assigned 1 point. Having calculated the sum of points for the positive and negative aspects of the matrix, we have the opportunity to draw a conclusion about the slight predominance (in the ratio of 8:4 or 2 times) of positive aspects in the prospects for the development of the industry over negative ones.

Table 4

**Matrix SWOT-analysis of the safety of agricultural enterprises
of Zhytomyr region**

Strong points (S)	Weak points (W)
1) increase in livestock productivity (by milk yield) (by 34.1%); 2) increase in sales revenue (by 61.5%); 3) excess of revenue growth rates over cost growth rates (by 1-7%); 4) profitability of production (by 10.6–17.8%); 5) balance sheet liquidity (by 24.3%).	1) fall in productivity (by 28.1%); 2) cost growth (by 22.8%).
Opportunities (O)	Threats (T)
1) growth of the company's assets (by 25.0%); 2) growth of current assets (by 55.3%); 3) increase in equity (by 25.1%).	1) growth of current obligation (by 37.6%); 2) increase in the volume of borrowed financial resources (by 24.8%).

Source: developed by the author

The combination of risk assessment parameters and trends of sustainable development of agricultural enterprises on one plane makes it possible to build a matrix of risk management strategies (Fig. 5). Based on the obtained results: assessment of the overall risk and level of security (25% – according to the SWOT-analysis), agricultural enterprises of the Zhytomyr region occupy a position in the 2nd quadrant of the matrix.

Quadrants 1, 2, 3 of the matrix of risk protection strategies determine the safe position of enterprises and meet the conditions of a soft risk management strategy. Quadrants 4, 5, 6 characterize the situation of critically acceptable risk and correspond to the strategy of moderate risk management.

Quadrants 7, 8, 9 correspond to the state of unacceptable risk and within their limits a strict risk management strategy should be implemented. At the same time, enterprises located in quadrant 9, which is characterized by crisis parameters, will have the least risk protection.

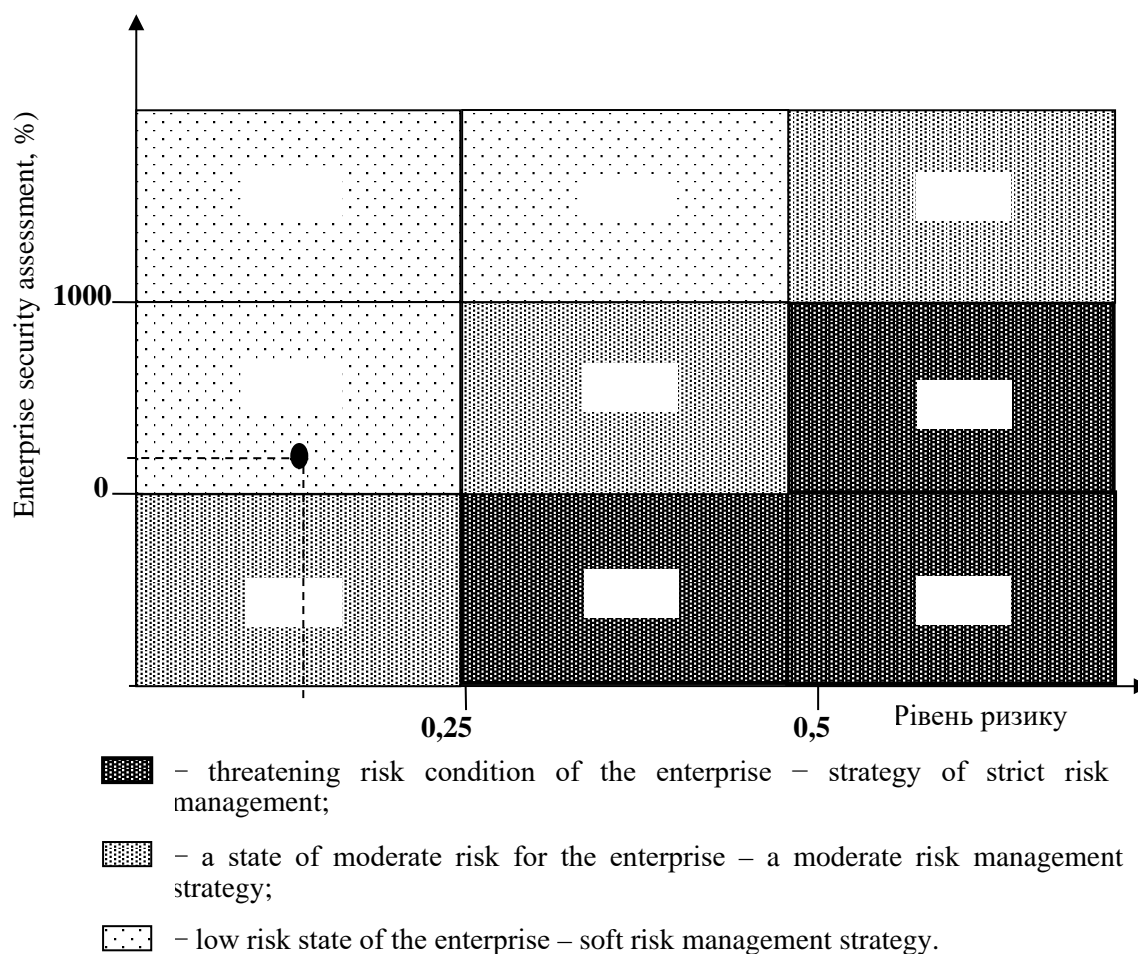


Figure 5. Matrix of enterprise risk management strategies

Source: developed by the author

The strategy of soft risk management in the safe zone for the enterprise is based on stable positive positions achieved in previous periods. The company's balanced capital, stable profits and good business reputation allow it to freely operate with a small risk and accept, subject to increased control, a medium-level risk (up to 0.5 percentage points).

This strategy, first of all, is characterized by the possibility of free operation with the available resources of the enterprise. It is aimed at modernization of production, active expansion of spheres of activity and volumes of production, use of existing potential and attraction of additional resources.

Management of risk protection under such a strategy can be carried out by all available methods, depending on the strength of the risk and the probability of its occurrence. In this way, investment projects will require the use of tools to prevent, reduce or accept risk, and individual high-risk projects may be rejected. Measures to expand production volumes and related to production,

marketing and financial diversification can be taken under the condition of constant monitoring of the risk level.

When implementing this risk protection strategy, the enterprise can use insurance only in relation to traditionally accepted insurance objects, other objects should be subject to regular ongoing control.

The strategy of moderate risk management is chosen in the case of negative trends in the development of the enterprise with low and medium levels of risk and a low level of economic security of the enterprise, as well as with a high assessment of security, however, with a high overall risk. All three zones of risk management strategies are of different proportions, however, only the zone of quadrant 4 is characterized by low quality of internal management of the entire enterprise as a whole, and therefore of risk, in particular. The rest of the quadrants are distinguished by enterprises with a significantly higher level of management, which indicates already existing principles of risk management, which should only be strengthened and expanded.

Thus, such a strategy should be recommended, firstly, for enterprises suffering from the consequences of unprofessional management decisions in the current and previous years. They are characterized by a reduction in the volume of production and sales, a high cost of production and low profits or losses. However, taking into account the inactive functioning on the market, the use of traditional sources of financing and sales markets, the level of possible risk for them is close to zero.

Secondly, the strategy of moderate risk management should be used by enterprises that are developing stably but slowly. Such enterprises mainly use classic management tools, proven and permanent methods, carry out production in traditional directions and, as a result, the level of probable risk for them does not exceed the average permissible limits.

Third, moderate risk management can be used by enterprises with a high level of security, and therefore quality management, which are actively functioning and constantly expanding their activities, which, of course, causes a high level of risk in relation to individual projects, activities and management decisions.

The mechanism of a moderate risk management strategy consists in the use of such tools as self-insurance – in relation to receivables, stock volumes, terms of concluded contracts, etc.; limitation – in relation to all types of current assets, amounts of receivables and payables, types of expenses, cost items; diversification – regarding expansion of types of activities, spheres of production, sales channels, investment projects, etc. When a high risk is detected, the enterprise must resort to insurance, transferring part of the risk to the insurance company. It is impractical to take a risk while in the delineated zones, as any manifestation of it can be a threat to the further functioning of the enterprise.

A strict risk management strategy involves careful monitoring of each possible risk and strict adherence to the entire risk management procedure. Such a strategy is characterized by the predominant use of risk avoidance tools (refusal of risk measures) and the complex use of risk prevention tools.

Being located in quadrants 7, 8 or 9, the enterprise is not able to take on risk or manage it independently. Therefore, in such cases, one should use insurance, search for external guarantors or unite with other interested entities in the process of managing and carrying out other activities. Such measures are expensive and not highly profitable, but they are able to provide a stable income to the enterprise and protect it from a crisis state.

Consequently, a reliable assessment of the level of economic security of the enterprise and probable risk makes it possible to choose a risk protection strategy adequate to its needs and capabilities, which will correspond to the direction of the general strategy.

Conclusions

To sum up, the driving force of systemic risk management is the organizational and economic mechanism. It includes a set of organizational, economic and informational measures, targeted influences and specific tools of such influences aimed at prevention (avoidance), leveling (reduction in level) or distribution of risk in order to ensure risk resistance and risk protection of enterprises. Impulses that activate the organizational and economic mechanism are increased uncertainty in the market or in state regulation, situational changes in the external and internal environments of the enterprise, innovations, market conditions, etc.

The decision-making mechanism for risk management of agricultural enterprises is based on the construction of a "decision tree", which includes five interrelated blocks: analysis of income and expenses using the break-even point, levels of operating and financial leverage; establishing the degree and level of risks based on the analysis and comparison of probable gains and losses; assessment of the expediency of their management and selection of management tools; evaluation of the effectiveness of their application; determination of the expected final result as an argument regarding the nature of the decision and its final adoption. Adequate is such a decision option, in which the amount of profit received by the enterprise will exceed the costs of risk prevention.

The development of the risk protection strategy of agricultural enterprises involves the assessment of the overall risk and the level of their security with the help of a multi-factor SWOT-matrix of the security of their activities. As a result of the construction of the matrix, agricultural commodity producers of the region occupy a position in its second quadrant, which corresponds to a low-level risk (up to 0.25 points) and the conditions of a soft risk management

strategy. Such a strategy provides for the possibility of free operation of the company's available resources, aimed at modernization of production, active expansion of spheres of activity and production volumes, use of existing potential and attraction of additional resources.

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