Implementation of the risk appetite concept in the diagnosis of financial risks and threats to the economic security of enterprises of the viticulture and wine industry of Ukraine

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Abstract
The article reviews the essence of the concept of "risk appetite", which is a modern business concept that significantly increases the effectiveness of economic security management of an economic entity. The author of the article explores interrelated concepts: risk, threat, risk appetite, risk tolerance, as well as risk capacity in the context of ensuring the economic security of enterprises of the viticulture and wine industry. The article highlights the fact that the cultivation of grapes and the production of wine is a type of business with a high share of risks both due to the impact of natural phenomena that pose threats to the production of grapes of a certain quality, and a significant level of administrative burden in the field of state regulation. Therefore, economic entities involved in viticulture and wine-making are constantly exposed to threats and their activities are an object of economic security. The article focuses on the expediency of using risk appetite in managing risks and threats to the activities of agricultural sector. The differences between risk capacity, risk appetite and risk tolerance are determined. Attention is focused on the fact that risk appetite is determined depending on the strategic goals of the enterprise. These goals may determine the achievement of specific financial indicators, compliance with financial regulations and other indicators of the activity of wine industry entities. The author's vision of the definition of risk appetite and its management in the framework of ensuring the economic security of enterprises is proposed.

Keywords: risk appetite, risk tolerance, risk capacity, risk appetite assessment, risk appetite management, threat.

Introduction
Given the long-standing traditions of the Ukrainian people, as well as the unique and favorable natural and climatic conditions for growing grapes, the available quality raw material, production and infrastructure potential, together with the growing demand for wine products, viticulture and wine making is a prospective area of the national agricultural sector (Babyii, Oleg & Tymchenko, Kateryna, 2020).

The interrelated activities of grape growing and wine production are characterized on the one hand by considerable potential, and on the other by high dynamism and exposure to a strong influence of a combination of positive and negative factors. This, in turn, explains the strong correlation of a number of internal and external factors, various impact vectors, on the dynamics of the development of the domestic wine industry and, thus, determining the state of its development, as well as the prospects for its strategic expansion and growth (Babych, Iryna & Bilko, Marina, 2016).

Viticulture has always been a traditionally important branch of crop production, as well as one of the main budget-forming and socially significant economic activities of the regions of

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Ukraine. The successful development of the viticulture and wine making industry is determined, first of all, by the peculiarity of the terroir, which is a combination of factors such as the varietal structure of the cultivated grapes, soil type, climate and people working in this industry.

At the same time, it should be emphasized that the cultivation of grapes and the production of wine is a type of business with a high share of risks both due to the impact of natural phenomena that pose threats to the production of grapes of a certain quality, and a significant level of administrative burden in the field of state regulation. This means that business entities engaged in the field of viticulture and wine making are constantly exposed to threats, and their activities are an object of economic security (Morata, Antonio & Loira, Iris & Gonzalez, Carmen, 2022).

Thus, the study of modern methodological tools for diagnosing financial risks and threats to ensure the economic security of enterprises in the agricultural industrial sector of the economy, including the viticultural and wine-making complex, acquires new significance in the present conditions. In order to validate the risk assessment model for the adequacy and validity of the costs incurred, the article focuses on the expediency of using the concept of risk appetite.

**Material and methods**

The company’s risk management has become an essential component of modern corporate governance and is a subject of research that has been developing for many years and has recently become increasingly relevant. At that time, the number of companies that are unable to foresee and manage risks in their organizations is growing, and the dynamically changing competitive environment constantly pushes them to take risks in order to multiply and optimize profit. It is impossible to make a profit without taking on any risk. And yet, taking such risks without being able to manage them can lead to financial collapse. By regularly validating the risk management model, the company’s top management sets itself the task of determining the amount of acceptable risk to achieve strategic goals. The key factor is understanding the level of risk they are willing to take (Kannadhasan, M., 2013).

The risk appetite is an important business concept that significantly enhances the economic security management of a business entity. In the literature, it is most often interpreted as the total amount of risk determined by analytical calculation, which the company is ready to accept. This concept is embedded in the methodological model of financial capital management of the company, which is closely interrelated with the risk management of supply, production and distribution of goods (key processes of the company’s activities – author’s note), as well as strategy and setting tactical goals. Each organization pursues different goals to increase value and, as a rule, must be aware of an acceptable level of risk at the same time.

![Fig. 1. Methodological concept of risk appetite of financial capital management of the company*](https://pecb.com/article/risk-appetite-the-cornerstone-of-enterprise-risk-management)

In our opinion, the economic security of all structural elements of the socio-economic system (including the viticulture and wine making industries – author’s note) in essence, it is an economic and managerial category and its state is determined by the level of development of these
elements in the economic space, the potential for their development, as well as the effectiveness of its use. Thus, economic security is determined by the managerial component, which determines the formation of an effective organizational and managerial mechanism to ensure it.

One of the key tasks in this area is the development of a rational scenario for ensuring economic security, including, including the task of rational allocation of resources according to a previously formulated algorithm for the implementation of a set of security measures.

One of the main methodological principles of financial management of economic security is a systematic approach. The concept of risk appetite in the present context of the study—this is one of the system-forming elements, closely interrelated and interdependent on other elements of risk leveling and ensuring the economic security of the business entity, which have orderly connections and form a certain structure with predetermined features.

The company's risk management models, including in agricultural activities, provide for ensuring competitiveness on the one hand and its financial stability in the conditions of changing external environment on the other. The risk accompanying certain managerial business functions should be considered not only as a negative phenomenon, but also as an opportunity to rationalize business and professional growth of a market entity (in this article, enterprises of the viticulture and wine industry - author's note).

Risk management is the process of working out a compromise aimed at achieving a balance between the benefits of risk reduction and the costs necessary for this. This is the process of developing an optimal, reasonable solution to ensure a balance between the benefits of optimizing risks and costs in terms of their comparison with the increase in the value of the enterprise. This is the process of effectively using the potential and real capabilities of an enterprise in a risk environment (Coyne, Thomas, 2013).

Consequently, the methodological model of the study of the implementation of the risk appetite concept in the process of managing the economic security of enterprises in the agricultural sector of the economy or those engaged in risky farming should include an integrated approach.

Special attention should be paid to the fact that integrated security implies the mandatory continuity of the process of ensuring security both in time and in space (throughout the technological cycle of the viticultural and wine-making enterprise), with mandatory consideration of all possible types of threats.

In whatever form an integrated approach is applied, it is associated with the solution of a number of complex diverse particular or specific tasks in their close relationship.

The methodological approach and the application of rational choice theory, in our opinion, can be used as best as possible in the study of the mechanism of ensuring economic security in conditions of uncertainty and limited resources. Rationality as an organizational or institutional strategy was described by Weber, who describes it as "... the systematic organization of ideas, people and resources in the interests of instrumental effectiveness and efficiency" (Weber, M., 1968).

In the work of V.A. Tambovtsev, the following interpretation of the concept under study is presented: security is a state of the subject, which means that the probability of an undesirable change in any qualities of the subject, the parameters of the property belonging to him, as well as the external environment affecting him is small (less than the established limit) (Tambovtsev, V. L., 2004).

A panoramic overview of the definitions of this concept presented in scientific publications allows us to summarize and highlight the following:

- to date, the conceptual apparatus is in the active stage of its formation;
- emerging new risks and threats of a previously unknown hybrid nature actualize scientific developments in order to find effective solutions;
- an increasing number of scientists are inclined to believe that the importance of
concentrating efforts on ensuring the protection of the object from destabilizing / destructive effects on the functioning of the object;

- quite new and not fully disclosed are the issues of ensuring resistance – the ability to withstand risks and threats of various nature and scale;

- the key to the basis of an effective mechanism for ensuring economic security is the provision of resources in an optimal structure and quantity.

The above allows us to summarize the key aspects of the ontology of economic security of the viticulture and wine making industry. In summary, viticulture and wine making is a highly intensive, highly profitable and at the same time capital-intensive sector of agricultural production, which is constantly under the influence of a combination of different factors. These factors make it necessary to study the industry and its constituent elements as an object of economic security in order to maintain resistance at a certain level or to resist the negative (destabilizing, destructive – author’s note) influence of risks and threats of various nature and scale. Among the totality of factors, the strongest influence in ensuring economic security is exerted by the availability of sufficient financial resources in an optimal structure.

The high capital intensity of viticulture and wine making, as well as the long payback period of capital investments explains the logic of low investment attractiveness. Thus, financial and other resources invested in the laying and cultivation of vineyards are diverted from circulation for about 4 years. In addition, significant resources are required, which will be used for the purpose of caring for young vineyards and putting them into operation as part of perennial plantings. According to the director of the corporation "Ukrvinprom" V. Kucherenko, it takes about 40-50 thousand dollars to invest in one hectare of vineyards with drip irrigation to fruiting age.

It should also be noted that grape cultivation is directly dependent on weather conditions, i.e. factors that are beyond human control. All this and the associated costs of agricultural technology, irrigation and crop protection products and fertilisers make the industry one of the riskiest sectors for agriculture, which is the most susceptible to the threats and risks of this nature.

Results and discussion

The focus on economic security issues in terms of specific industry subjects has led us to the need for a detailed analysis of the semantic essence and interrelation of the concepts of "threat" ↔ "risk".

In its broadest sense, a threat refers to an unfavorable change in the political, socio-economic, environmental situation that causes significant real damage or harm to the state as a whole and its constituent structural elements in the context of their interests. A threat is a subjective, external or internal trend, little or uncontrollable by an agent, an event that entails the risk of loss, damage, harm or perceived as such. Note that threats are more specific, because they always have an addressee. To summarize, a threat is a real, targeted and immediate possibility of damage in various forms being caused to the interests of an enterprise.

A panoramic review of scientific sources published and available allowed us to summarize and highlight the key aspects of the concept of "threat":

1. Threatening is a pre-conflict situation.
2. A threat is always the intent and possibility of harm to security interests.
3. A threat always has a specific addressee (Rudakova, T.A., Cherkasova, Yu.V., 2019).

The associated concept of "risk" is most often understood as the probability of a loss or the possibility of some positive outcome (in the case of a speculative gain, for example - author's note). There is no doubt that scientific sources present many interpretations of it in the context of certain aspects of research (Aven, Terje, 2012).

The most accurate concept of risk in the
context of the issues studied by us in their work was presented by A.I. Zaripova and S.V. Kovalenko: "Risk is a value that characterizes potential losses (losses) associated with the adoption of incorrect management decisions developed as a result of studying the economic, political and social situation in which the company operates" (Zaripova, A.I., 2018).

This concept is more fully covered in the following criteria: the nature of risk in its economic manifestation, the causes of risk, the probability of occurrence of events, etc. (Felton, Ken, 2010).

As a result of generalization, we have identified the key aspects of the differences between risk and threats:

1. Risk includes uncertainty about whether a certain event will occur and whether an undesirable event will occur for the subject (in the context of this study – enterprises of the viticulture and wine making industry – author's note.) condition.

2. The threat is an integral part of the risk.

Concerning the second statement, we think that in order to assess, for example, financial risk, it is necessary to first assess the probability of an identified threat to a particular enterprise and then, if the probability is high, to assess the vulnerability of the enterprise's financial capital as well as the financial risk control mechanisms. The combination of these estimates will make it possible to estimate the total amount of financial risk.

Based on this, we believe that financial risk and financial threat represent different time stages of uncertainty. Both of these complementary concepts significantly determine the economic behavior of the subject, since they determine the safety of the object (in this case, the viticulture and wine making industries, author's note) through the possibility and probability of danger and damage (Vyatkin, A.A., 2018).

In our understanding, economic behavior is a system of social actions that, first of all, are associated with the use and recombination of economic resources and, secondly, are focused on obtaining benefits (benefits, profits, etc.) from their circulation (Verkhovin, V.I., 2015).

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**Fig. 2. Specific classification of financial risks of enterprises and wine making***

Identifying and identifying specific risk events is one of the most difficult and important tasks. The need for risk classification in viticulture and wine making is actualized by the tasks of operational risk management, and the risks themselves are determined by the specifics of
the internal and external environment of the type of activity or type of financial transactions.

In order to effectively manage the available financial resources of the enterprises of the wine industry in conditions of uncertainty, as well as the constant presence of risks and threats of various kinds, it is advisable to form the basis of the organizational and managerial mechanism for ensuring EC from risk management tools.

The fundamental element of the risk management philosophy (which in our understanding correlates with threats – author’s note) for any business entity is to determine its appetite for risk.

In particular, one of the key positions, in our opinion, should be occupied by the concept of risk appetite in the context of ensuring the financial security of each enterprise in the industry.

The semantic analysis of the concept of "risk appetite" in relation to the problems of ensuring economic security boils down to the following. Risk appetite, in our understanding, reflects the amount of risk that an enterprise can afford in operations, depending on its financial and operational capabilities, growth rates and expectations in terms of profitability from interrelated or interested parties (creditors, distributors, investors, etc.) (Table 1.) (Kumar, Sonjai, 2021).

An effective risk management policy (in this study, wine industry enterprises, author’s note) should diagnose and verify the benefits of risk-oriented thinking, the conditions depending on which an industry enterprise will take on risk or avoid it, the goals of optimizing risk control and the necessary risk management system (Lam, James., 2017).

| A source | Interpretation |
|----------|----------------|
| ISO 31000:2009/ISO Guide 73:2009 | "The amount of risk that the organization is willing to pursue, maintain and/or accept" |
| The Institute of International Auditors (from January 2009) | "The level of risk that the organization wishes to accept" |
| COSO`s ERM framework | "The amount of risk that an organization is willing to accept in the process of obtaining added value" |
| Basel Committee on Banking Supervision** | "Risk appetite represents pre–determined levels and types of risks within the acceptable level of risks that the bank is ready to accept in order to achieve its goals, based on the scale and nature of its activities within the framework of the strategy and business plan" |
| Society of Actuaries ERM Symposium (from April 2010) | "The level of risk that the company's management considers acceptable in the process of achieving common financial and solvent goals" |
| HM Treasury’s Orange Book | "The amount of risk that is considered tolerant and justified" |

In our opinion, viticulture and wine making enterprises as agents of financial and economic relations should improve their approach to determining risk appetite. Any business, including in the wine industry, is inherently a risky project in which it is necessary to take risks in order to profit from the activities carried out, and in this case the risk appetite shows an acceptable balance between risks for grape and wine enterprises (for example, in new
investment projects, the introduction of new technologies, the release of new ones goods, etc.) and the profit that can be obtained (Liubokhynets, Larysa & Katkova, Tetyana & Kravchyk, Yurii, 2022).

Fig. 3. Risk appetite and its relation to market capacity and risk tolerance

Note that the concept of risk appetite (or risk appetite - author’s note) is interrelated with such concepts and terms as "risk capacity", as well as "risk tolerance". In the context of this study, the risk capacity is a terminal level of risk, upon reaching which unacceptable consequences for the wine industry enterprise occur, for example, such as bankruptcy (Iryna, Fedulova & Skopenko, Nataliia, 2020).

In turn, risk tolerance shows an acceptable level of risk for enterprises of the grape and wine-producing sector of the economy, measured in relation to any one (see all types of risks presented in Fig. 2.) a specific risk, whereas, in turn, risk appetite refers to all risks and is measured as the total value inherent in their activities of a given enterprise (Koller, Michael, 2011).

We believe that the first step for a wine industry enterprise will be to understand the capacity of risk — as an absolute limit on the level of risk that cannot be reached. Further, having determined the risk capacity, it will be possible to establish the level of risk appetite, and later calculate tolerance to specific types of risks.

All of the above fully reflects the problems of functioning of Ukrainian viticulture and wine making enterprises at the present time, which confirms the validity of our recommendations on the inclusion of methodological approaches for determining risk appetite for risk management, as well as leveling threats and dangers of various types and levels of scale of EB (Labys, Walter, 2002).

We offer an empirical study of the methodological tool proposed above – risk appetite in ensuring the EC of enterprises in the viticulture and wine making industry (in particular, its financial component - author's note) on the example of the activities of the three largest wine producers in Ukraine:
- Odessavinprom PJSC "French Boulevard";
- PJSC "Koblevo";
- PJSC "Izmailsky winery".

Our choice is justified by the rich history of these companies and their significance in the domestic wine market.

Thus, the history of the "French Boulevard" begins in 1857, when the French merchant F. Nouveau laid wine cellars on Malofontanskaya Road, since 1902 - French Boulevard. And currently, it is there that part of the production and the main office of the company are located. The company has an agricultural, technological and intellectual resource that is unique in Ukraine and is characterized by the full cycle of wine production. The entire technological process from growing grapes to bottling the finished wine is carried out by a single control system. The company's structure includes about 2500 hectares of vineyards located in four climatic micro zones of the Saratsky and Ovidiopolsky districts of the Odessa region, 2 primary wine making plants, 3 workshops for the production of champagne and sparkling wines, as well as a technological base for secondary wine making, consisting of a tank farm, 2 oak aging workshops, 6 bottling lines.

About 100 names of sparkling and still wines, champagne wines and cognacs are produced under the trademark "French Boulevard". The company is a multiple winner of the Ukrainian industry ratings of various nominations and is part of the elite of the national wine making.

The next enterprise of the sample analyzed by us is the Koblevo plant. It was built back in
1982 in the Mykolaiv region near the Tiligul estuary on the Black Sea coast, and currently PJSC Koblevo is one of the most technologically equipped and powerful wineries in Ukraine of primary and secondary cycle.

More than 2450 hectares of the company's own vineyards are located on the lands of the Tiligulo Reserve. Unique natural and climatic factors - southern black soil and mild marine climate create ideal conditions for growing such refined grape varieties – "Aligote", "Bastardo", "Irshai Oliver", "Cabernet Sauvignon", "Merlot", "Muscat Hamburg", "Muscat Ottonel", "Odessa black", "Sauvignon", "Riesling", "Rkatsiteli", "Traminer", "Chardonnay", "Alaska", etc. Thanks to the compact location of the vineyards and the plant, all the harvested berries are delivered to the primary processing in record time - in 1-2 hours, which ideally corresponds to the required technological cycle.

The high quality of the raw materials - grapes of exquisite varieties, is the result of fruitful cooperation between scientists of the Institute of Grapes and Wine "Magarach" and specialists of the plant. Separately, it should be mentioned that the company buys seedlings of the best grape varieties in Germany, Italy, France. The Koblevo company is an innovatively active enterprise, all popular technological innovations used by winemakers in Europe have already been introduced into production. Since 2004, the plant has begun the process of upgrading equipment for the entire technological cycle: from the primary processing of grapes to bottling wine.

Currently, harvesting is carried out by French harvesters of the company "Gregoire", the unit cost of which exceeds UAH 2 million. These harvesters are able to harvest grapes in the shortest possible time - 100 tons of grapes per day. However, varietal and elite grape varieties are harvested only by hand. Among the most significant innovations for the production of high-quality products is the use of modern membrane presses in processing technology, which allow you to squeeze grape juice as carefully as possible without the possibility of getting into it skins and grape seeds. In addition, a significant amount of funds was invested for the purchase of a pure culture of wine yeast brought from Germany, Canada and France.

We should also mention the fact that the Koblevo plant uses a progressive fermentation technology at low temperature. For these purposes, stainless steel containers "Fabbri-inox" (France) are used with a special fermentation and storage temperature controller. The use of such equipment is a prerequisite for obtaining the highest quality wine.

It is noteworthy that the storage for wine materials of the Koblevo company is the largest in Ukraine. It can hold 15 million liters. It is in this storage that the cleaning of wine materials – grape must and its ripening takes place. In the process, the future wine is poured and filtered several more times. In the final stage of the technological process, wine materials are processed cold in accordance with European quality standards. This is mainly done in order to avoid turbidity of the finished product and for the purpose of forced precipitation of tartar. Only then the finished wine is poured into a prepared glass container and the bottles are sealed with Portuguese-made cork stoppers.

The Koblevo company produces not only wines, but also "Marengo" vermouth, which is popular with domestic buyers, which was created according to a classic recipe in the Italian-French traditions. This drink is made only from high-quality dry wine and an infusion of natural spices and herbs. The recipe for vermouth of Ukrainian production is based on the experience of French and Italian winemakers, who are considered professionals and world experts in the production of vermouth. However, the proportions of the ingredients used are an exclusive development of the technologists of PJSC Koblevo and the recipe is kept in the strictest confidence. Among the main components of the exclusive drink are rose petals, basil, lemon balm, chamomile, immortelle, wormwood, sage and lavender. They are brought to the plant from crop farms in
Ukraine. But pod vanilla, fragrant coriander and whole nutmeg are supplied from Indonesia and Madagascar.

The third analyzed enterprise of this sample is the PJSC "Izmailsky Winery", which was founded in 1949 and is currently part of one of the largest commercial and industrial holdings in Ukraine specializing in the production and sale of high-quality wines and alcoholic beverages, with a full cycle of wine production. The company grows Italian seedlings of Aligote, Cabernet Sauvignon, Merlot, Nutmeg Ottonel, Riesling, Rkatsiteli, Traminer and Chardonnay.

The main factory of secondary winemaking is located in Izmail, where there are 5 lines for the production and sterile bottling of still wines in glass bottles and cardboard packaging with a capacity of 1 liter. The champagne workshop, equipped with a tank farm and 2 bottling lines, allows you to produce high-quality wines. Product quality is monitored at all stages of production. The company's assortment includes more than 100 names of sparkling, still and champagne wines, the recipe of which was developed by the company's technologists. It should be noted that the wines of the brands "Vinograd", "Odeske Vishukane", "Wine Izmail", "Champagne Ukraine Izmail", "Ukrainian Wine", "Soviet Champagne", champagne "Odessa Tradition" have repeatedly become winners in tasting competitions in Ukraine and abroad, and have also been awarded diplomas and medals.

So, on the example of the activities of the three largest wine producers of Ukraine - PJSC "French Boulevard", PJSC "Koblevo" and PJSC "Izmailsky Winery", the author of this article calculated the probability of bankruptcy separately using the Altman method, the Taffler method and the Savitskaya method. However, the conducted analytical studies indicate that only an integrated approach will be able to minimize the error of the forecast of bankruptcy of enterprises in the industry, which means that they will be more likely to provide data to senior management for rapid response in order to level the maximum risks and threats to the EC of grape-growing enterprises (Table 2.).

**Table 2. Comprehensive assessment of the probability of bankruptcy of viticultural and wine-making enterprises using the methods of Altman, Taffler and Savitskaya, 2020***

| Indicator          | Calculation formula                                                                 | Odessa-vinprom PJSC "French Boulevard" | PJSC "Koblevo" | PJSC "Izmail wine-making plant" |
|--------------------|--------------------------------------------------------------------------------------|----------------------------------------|----------------|----------------------------------|
| Altman Coefficient | \( Z_{\text{Alt}} = -0.3867 -1,072 \times X_1 + 0.0578 \times X_2 \)                   | - 1.71                                  | - 2.03         | - 1.86                            |
| Taffler coefficient | \( Z_{\text{Taf}} = 0.53X_1 + 0.132X_2 + 0.181X_3 + 0.16X_4 \)                         | 0.22                                   | - 0.08         | - 0.34                           |
| Savitskaya coefficient | \( Z_{\text{Sav}}=0.111 \times X_1 + 13.22 \times X_2 + 1.671 \times X_3 + 0.516 \times X_4 + 3.8 \times X_5 \) | 12.25                                  | - 2.49         | - 1.82                           |

* Source: calculated by the author on the basis of the financial statements of the analyzed enterprises

Based on the calculated indicators of Table 1., we can conclude that the enterprises of PJSC "Koblevo" and PJSC "Izmailsky Winery" in 2020, the enterprises were at risk of bankruptcy, since the Savitskaya coefficient was fixed below "1". At the same time, as in the calculation of the Taffler coefficient, there was no risk of bankruptcy at the French Boulevard PJSC enterprise (\( Z = 12.25 \)). Note that if the value of the Savitskaya \( Z \) – coefficient is greater than 8, there is no risk of bankruptcy.

A panoramic review of the literature devoted to this concept allowed us to conclude that there is no single formula for calculating risk appetite. Rather, the authors'
scientific publications describe the methods of calculating the indicator, but they differ depending on the specific situation under consideration (Iryna, Fedulova & Sagaydack, Julia., 2018). It is more legitimate, in our opinion, to use not one, but a set of indicators, which will allow us to determine the value of the indicator with greater accuracy. In our opinion, it would be advisable for wine industry enterprises to calculate the integral value of risk appetite based on a set of 3 groups of indicators:

- I group of indicators, which will include indicators of capital adequacy, liquidity and solvency, etc.;
- II group of indicators reflecting the limits of economic capital by areas of activity in viticulture and winemaking, as well as by types of risk;
- III group of indicators, which will include all other indicators that characterize the features and nuances of doing business in the wine industry.

We recommend calculating risk appetite in relation to specific target indicators of the company’s activity. For evaluation, it is necessary to identify the main factors and rank specific risks that affect the achievement of the optimal indicator.

Karl Birch in his research (Birch, K., 2015) identifies the following key factors that influence the risk appetite of the enterprise:

- external factors, primarily changes in political as well as economic conditions, changes in industry, changes in production technology, etc.;
- government restrictions, we are talking about the introduction or abolition of duties and fees, embargoes, etc.;
- the probability of fraud, in this context we mean a set of issues related to the very nature of business, control in business, as well as the ethical components of the business environment;
- accounting factors, we are talking about the volume of transactions, the specifics of the implementation of export-import operations, the complexity of the accounting system, as well as changing rules and regulations;
- internal factors that depend on the enterprise, such as gaps in the production system (in the context of a dissertation study – interruptions in the supply of raw materials, production disruptions, etc. – author's note), the number and quality of hired personnel, changes in the organizational structure of the enterprise, etc.

The leitmotif of the author's research, which acts as the “key” to solving the problem of reducing risks and threats to economic security in the wine industry, is the organization of a control system. In this context of the study, we can emphasize that determining the enterprise’s appetite for risk and tolerance to it is the first step in developing an insider threat program. Determining what needs to be protected and what an enterprise is willing and willing to do to protect its assets creates a basis for prioritizing risks, which in turn helps determine the resources that should be allocated to mitigate internal threats (Gelles, Michael, 2016).

It should be recognized that finding a balance between risk appetite and control is not an easy task, but every company should strive for this and constantly work to find this balance. If you know exactly the risk appetite of your company, then you can already talk about the existence of a basis on the basis of which you can determine whether there is congruence (correspondence, consistency and consistency in this context - author's note) between the set goals of the activity and the actions of management.

In general, the risk appetite monitoring and validation system should be carried out on a regular basis, as well as when the company's strategy changes, as well as the key conditions of its economic activity.

We propose an algorithm for managing risk appetite for the studied enterprises (Fig. 4).
Main strategic objectives viticultural and wine-making enterprises

Determination of risk capacity and limitations

Business strategy and tactical goals

Diagnosis of the attitude to risk

**Risk appetite**
(aggregate quantitative and quality indicators)

**Definition tolerance**
to risk (totality of limits and thresholds)

**Fig. 4. Risk appetite management algorithm at the enterprises of the viticulture and wine industry**
* Source: developed by the author

**Conclusions**

Thus, it can be concluded that in order to effectively manage the available financial resources of the enterprises of the wine industry in conditions of uncertainty, as well as the constant presence of risks and threats of various nature, it is advisable to form the basis of the organizational and managerial mechanism for ensuring EC from risk management tools. The concept of risk appetite is considered in this context as a modern approach to the establishment of acceptable risks for business entities, including policies, processes, controls and systems by which the risk appetite in the company's activities is established, transferred to performers, and also controlled. At the same time, risk appetite is used to justify the methodological tools of the management system, including the system of ensuring economic security.

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