

Kyiv National University of Trade and Economics

Department of Economics and Business Finance

FINAL QUALIFYING PAPER

on the topic:

Financial risk management at an enterprise

based on data of PrJSC "Kalinovskiy machine building plant", Kalinovka,
Vinnitsa region

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INTRODUCTION

Topicality. Ukrainian enterprises in the course of their economic activity face a large number of diverse risks that may affect the effectiveness of the chosen activity. It follows that consideration of the risk factor is objectively necessary as well there is a need to determine the place of methods and tools of risk management in the overall management system of the enterprise.

Successful development of the national economy is impossible without creating added value. Enterprises have the greatest potential knowledge-intensive and machine-building industries, which include PJSC "Kalynivsky Machine-Building Plant". Under current trends and in conditions of uncertainty, the company must respond quickly to changes in external and internal factors that affect the competitive position and be able to objectively assess its own reserves and potential. Risks of activity can become an obstacle on the way of achievement of effective and profitable activity of the enterprise. An integral part minimizing these risks is the risk management of financial activities.

The purpose of the final qualification work is to determine the theoretical and methodological foundations, to form practical recommendations for improving the financial risk management system at an enterprise.

To achieve this goal it is necessary to solve the following tasks:

- to explore the theoretical principles of financial risk management at the enterprise;
- to analyze the financial condition of the enterprise;
- identify financial risks in the enterprise;
- to analyze financial risks at the enterprise;
- identify ways to improve the financial management system risks in the enterprise.

The object of research is the process of financial risk management at an enterprise.

The subject of research is theoretical-methodological and practical principles of financial risk management at an enterprise.

Research methods. The theoretical and methodological basis of qualification work is the dialectical method of cognition, principles system analysis and synthesis, statistical information processing. In addition, when writing a dissertation, the fundamental provisions of the work of domestic and foreign economists on risk management were used.

The information base of the study was formed on the basis of reporting data of PJSC "Kalynivsky Machine-Building Plant". analytical data published in the scientific literature and periodicals, expert developments and assessments of Ukrainian and foreign scientists.

The following domestic foreign scientists paid a lot of attention in their scientific works to the problems of financial risk management, improvement of the process of financial risk management at the enterprise: A. Adamska, V.Yu. Buikina, M.P. Voynarenko, I.I. Verbitska, O.I. Gonchar, S.S. Korobova, I.M. Posokhov, H.A. Khrushchev, F. Knight, J. M. Keynes and others. However, deep systemic transformations of external and internal business conditions that have a chaotic and uncertain nature, as well as the rapid development of methods of economic research necessitate the harmonization of existing theoretical and methodological approaches to risk management in the enterprise with modern economic realities.

The scientific novelty of the obtained results lies in the generalization of approaches to financial risk management. They were further developed practical recommendations for identifying ways to improve the financial risk management system in the enterprise.

Practical meaning. The results of the study and proposed ways to improve the financial management system risks in the enterprise can be taken into account and used by the enterprise in further decision-making to diagnose the financial crisis of the enterprise.

Approbation. The results of the study were provided to the company for further use and published in the collection of master's articles "Economics and Finance of Enterprise" in the article on the topic: THE VALUE OF RISK MANAGEMENT AT THE ENTERPRISE, 2021.

Structure and scope of work: the work consists of an introduction, three sections, conclusions and recommendations, a list of sources used and applications. The main content of the work is set out on 58 pages.

PART 1. THEORETICAL PRINCIPLES OF FINANCIAL RISK MANAGEMENT AT AN ENTERPRISE

In the economic system, any type of activity determines the emergence of risks that lead to losses (undesirable consequences) of the system as a whole or its structural components. Economic activity is accompanied by a large number of risks, both subjective and objective. The subjectivity of risk is due to the fact that in the economy there are real people (investors, managers, management teams, businessmen) with their experience, psychology, interests, tastes, propensity or aversion to risk, with their behavior, etc. Risk management as a direction of management is a set of management decisions aimed at identifying risk, assessing the probability of its occurrence and economic consequences of its negative manifestations, risk analysis and selection and application of the most appropriate risk management methods [1, p. 38].

Any activity of a modern machine-building enterprise operating in the domestic and foreign markets is exposed to a large group of risks and becomes increasingly unstable, changeable, complex and difficult to predict. Due to the global economic crisis in the world and other consequences caused by the spread of acute respiratory disease COVID-19 caused by the coronavirus SARS-CoV-2 (hereinafter - the COVID-19 pandemic), the risks of industrial machine-building enterprises are significantly increased bankruptcy [2]. That is why in modern conditions it is so important to identify, assess and develop ways to manage risks.

For Ukraine, the use of risk management technologies and the development of risk management culture is an important task of managing the country's economy and an important aspect of ensuring its dynamic development. In Ukraine, risk management is undergoing a period of formation: gradually there are professional associations that aim to solve certain problems in the field of risk management; large industrial companies initiate the creation of corporate risk management systems; global consulting companies dealing with risk management

and offering the best foreign practice on this issue enter the Ukrainian market [3, p.75].

Risk management allows you to control the development of the situation and due to the use of certain measures to maximize positive and minimization negative effects of risk events.

The risk in the economy is due primarily a disadvantage of information about possible to achieve one or more goals. Since the uncertainty of the results of economic activity in turn is due to objective factors, the very uncertainty in the economy is objective, and therefore, and the risks here must be considered an objective category.

The essence of risk is reflected in the following elements:

- the possibility of deviations from the predicted purpose;
- probability to achieve the desired result;
- lack of confidence in achieving a set target;
- possibility of material, moral and other losses related to the implementation of the alternative elected in the conditions of uncertainty [4, p. 247].

Currently, there are two approaches in the literature to determine the risk.

The first approach is based on the outcome of the event, and the risk is seen as the possibility or threat of deviation of the results of specific decisions or actions from expected. The second approach considers the phenomenon of risk itself as an action aimed at achieving a specific goal related to the elements of danger, the threat of loss or failure.

The theory of risk in applying to economic activity began to develop intensively from the middle of the last century. At the same time, in our country, in modern domestic practice of the analysis of economic activity, the concept of "risk" and "risk analysis" has recently appeared. It connected the previously accumulated international experience and a thorough domestic theoretical base, becoming a mandatory section of any business analysis [5 , p. 72].

Current risk definitions of a number of leading authors are given in tab. 1.1.

Table 1.1

Modern risk definitions in scientific literature

Author	Risk definitions
R. Picus	Probability of a particular event, resulting in a loss expected economic (financial) benefits or direct losses.
A.Tkachenko	Situational characteristic of the activity of any market entity, which consequence of uncertainty in its internal and external environments, and in its implementation for this subject there are adverse effects.
O.M. Lyashenko	"Risk" is considered as a two-factor concept, because on the one hand (the aspect of passive influence) is a conscious part of the danger, and on the other (the aspect of active influence) is an action aimed at eliminating the danger or threat or vice versa - the conscious (probable).) receiving damage, loss.
R. Pisanyuk, L. Nedilska	Unpredictable event that arises during the activities of any enterprise and can lead to negative (loss of profits and solvency), positive (benefits, profits) or neutral results
E.Bortnikova	The probability of underestimation of the intended result due to the implementation of any activity within the framework of uncertainty, which does not allow the subject for one hundred percent to be confident about the positive course of events.
Z.S Varnaliy,	Risk that arises in all areas of the businessman's activity: production, sale of goods and services, financial and trade e.t.
T.Stepanova, D. Padrik	The probability of loss by the subject of entrepreneurial activity of income as a result of certain industrial and financial activities.
S. Ilyashenko	The threat of loss of a part of its resources, lack of income or additional expenses as a result of specific activities.

Continuation of table 1.1

L. Donets	The danger of loss of resources or lack of revenues compared with the option calculated for rational use of resources..
I. Ivchenko	Probability of losses or loss of revenues compared to the predicted variant.
N.Y.Reverchuk	Risk is the possibility of deviating the results of specific decisions or actions from the planned ones

Source: Composed by the author based on [4],[6],[7, p.143] ,[8, p.73],[9,p.299],[10, p.389],[11, p.176],[12, p.85],[13, p.225],[14, p.311],[15, p.73]

This definition is the most objective definition of business risk in all areas of the company. The company's foreign economic activity leads to a certain specificity of its operation, including the specificity of risks.

As an economic category, the risk is an event that may occur or fail. In case of such an event, three economic results are possible:

- negative (loss, damage);
- zero result (lack of profit, but also the absence of damage);
- positive (gain, profit) [4, p. 221].

The difficulty of classifying risks lies in their number (see Appendix A).

The species diversity of risks is quite large, from fires and geological risks to interstate conflicts, as well as changes in the legal framework governing financial or other activities, and inflationary fluctuations.

There are significant differences between cases of business destabilization caused by natural, man-made, technological or operational failures, and situations arising from the spread of the COVID-19 pandemic. These differences are related to the severity and duration of the pandemic, forcing organizations to go beyond traditional sustainable planning strategies. Companies need to consider pandemic planning factors in their sustainability management activities to ensure a comprehensive response and preservation of their flagship products and services.

The differences between traditional cases of business destabilization and business destabilization through a pandemic are presented in tab.1.2.

Table 1.2.

Comparison of traditional business destabilization and destabilization due to the COVID-19 pandemic

Parameter	Traditional business destabilization	Business destabilization through a pandemic
Scale	The crisis is localized: it affects an individual firm, region, enterprise, third-party organization, workforce.	Systemic nature: under the influence is everyone, including labor, customers, suppliers and competitors.
Propagation speed	As a rule, the crisis is contained and isolated fairly quickly, as soon as a specific cause is identified its occurrence.	Rapid spread in all markets and countries a global chain reaction with a serious cascading effect.
Duration	As a rule, the crisis is short-lived, can last less than a week	Extended and longer action; interruptions can last up to several months.
Lack of labor	It can lead to a temporary shortage or reorientation of the workforce to other tasks.	Can lead to a rapidly growing or significant shortage of labor.
External coordination	May require concerted action with government and law enforcement officials, as well as security officials with health.	Requires coordinated work with representatives of state and law enforcement agencies, as well as with health professionals in several regions.
Infrastructure availability	Requires the availability of basic infrastructure (eg electricity, public transport, communications.	May limit access to infrastructure as the pandemic escalates, especially if other companies feel similar difficulty.

Source: Composed by the author based on [17, p.15]

Unfortunately, there is no single normative document for industrial enterprises in Ukraine at the state level that would regulate the issue of risk management in the non-financial sphere, despite the existence of other regulatory documents on this issue.

In Ukraine, Mokhor V., Bogdanov O., Kruk O., Tsurkan V. made an attempt to interpret the terms and interpretations of the guideline ISO / IEC Guide 73: 2009 in accordance with the traditions of scientific and technical Ukrainian language and in accordance with the requirements of DSTU 3966-2000 “Terminology”. Principles and rules for developing standards for terms and definitions. In accordance with this guideline, risk identification is considered as a process of identifying, researching and describing (describing) risks. Risk identification involves identifying sources of risk, research of events, their causes and possible consequences [18,19, p.12].

Quite revealing in his work Kulik G.Yu. the ratio of the main terms of risk management according to ISO / IEC Guide 73: 2009 [20, p.105].

Appendix B demonstrates the correlation of basic concepts of risk management.

Methods for maintaining risk and compensation for losses, creation of reserve funds, the attraction of external sources should be used.

The basic principles of building a risk management system include: optimal combination of centralization and decentralization in the management, unity of higher and economic leadership, planning farming, stimulation, science, responsibility, selection and arrangement of personnel, efficiency [21].

The assessment of the impact of risk to the enterprise must take into account the financial implications, influence on its stability and goals, influence on the political and regional position of the enterprise. Logical is the allocation of three degrees of seriousness of consequences: high, moderate and low, which are given in the tab. 1.3

Table 1.3

Analysis of the effects of risks

Degree of seriousness of consequences	Effects
High	Quantitative changes in the financial condition of the organization. A significant impact on the vital activity of the enterprise. Significant political or regional consequences.
Moderate	Correct changes in the financial condition of the organization. A moderate influence on the vital activity of the enterprise. Moderate political or regional consequences.
Weak	Quantitative changes in the financial condition of the organization. Minimum impact on the vital activity of the enterprise. Minimum political or regional consequences

Source: Composed by the author according to the data [22]

Each type of risk can allow different ways to reduce it. To select the best method of risk reduction, it is necessary to use an assessment of the probability of occurrence of a risk event (see tab. 1.4).

Table 1.4

Analysis of the probability of loss in carrying out economic activities at the enterprise

Probability estimation	Description	Indicators
Zero	Probability of occurrence of the event is equal to 0	The event does not occur at all
Low (remote)	There is almost no probability of occurrence of the event within 10 years or a probability of 25%	The event did not take place. The probability of occurrence of the event was small

Continuation of tab.1.4

Average (maybe)	There is a probability of occurrence of an event within 10 years or it is impossible to tell about probability of occurrence precisely. Probability of occurrence 50%	An event can occur several times over a period of time. It is difficult to control due to the influence of external factors. Exist the history of the event.
High (probably)	Probability of occurrence annually or probability of occurrence of the event 75%.	The potential for the event to occur several times over a period of time (for example, 10 years). The event took place recently.
Absolute	The probability of occurrence of the event is 100%	The event is realized probably by force recently identified causes.

Source: compiled by the author according to the data [23, p. 313]

It can be argued that risk is a probabilistic category of activities of economic entities, which is associated with uncertainty in the situation of inevitable choice, when it is possible to assess the probability of achieving the desired result, failure or deviation from the goal.

Risks, as already mentioned, are probabilistic, so if you quantify the probability of damage to the enterprise from 0 to 1, the destabilizing factors can be ranked on the following scale: 0 - no damage; 0.1 - 0.5 - risk area; 0.5 - 0.7 - danger zone; 0.7 - 0.9 - threat zone; 1 - damage caused. The range from 0.5 to 0.7 is a danger zone, and at the same time a threatening risk, i.e. in this period there are destabilizing factors without obvious intentions to cause damage, however, they have this trend [24, p.145].

Risk management is designed to mitigate the impact of emergencies such as the COVID-19 pandemic. ISO standards define risk as the effect of uncertainty on the ability to meet its objectives.

All modern standards for management systems (ISO 9001, ISO 22000, etc.) refer to the introduction of risk-oriented thinking. It is important to constantly

monitor the context (conditions in which we live and work) and the expectations of stakeholders. This is necessary in order to anticipate risks and opportunities in time and prepare for them. In this case, even if critical risks are realized, the right plan of action will allow to level negative consequences and even to benefit.

There are a number of standards dedicated to risk management, primarily the family of international standards ISO 31000: 2018 "Risk Management - Principles and Guidelines" (Risk Management - Principles and guidelines) [25, p.35]. In Ukraine, this document is considered as a basic document for risk management and building an effective risk management system in the company.

Today, international risk management standards are developed and used in the world, which operate both at the level of individual countries and their associations. Modern enterprises, forming their own risk management standards within the framework of building a corporate risk management system, can and should use the provisions of world standards. Detailed information and classification of standards can be found in Appendix C.

Identifying risk factors is one of the most difficult parts and at the same time one of the key areas of work to identify risks. It is difficult to conduct a factor analysis, because the same factors have different effects on the market in different conditions or may be completely insignificant. The Appendix D provides a basic risk identification algorithm, which is determined by a sequence of questions. The answers to them allow you to develop an effective risk identification procedure. The level of detail depends on the status of the risk management process in the context of the activities to which it applies.

The Appendix E discusses the main methods of risk identification that are most common and used. The generalization of these methods is carried out on the basis of the international Standard ISO / IEC 31010: 2009 "Risk management. Risk management techniques " (" Risk management - Risk assessment techniques "), which focuses on the concepts, processes and choice of risk assessment method.

Analyzing the theoretical principles of the first section, we can draw conclusions. The risk of entrepreneurial activity is multifunctional and represents the possibility of negative deviations from the projected desired result of accepted managerial decisions associated with the integration of the entity to the market. The risk arises both in the decision-making plan and in the process of its implementation. In both cases, the risk is essentially a model of the subject of uncertainty, a tool for the practical solution of contradiction with obscure (alternative) development of mutually exclusive trends of reasons, determined by the influence of factors of external and internal.

The key source of risk in the enterprise is uncertainty. It is a fundamental characteristic of the lack of information and knowledge in the economic decision-making process regarding a particular problem situation. In addition to uncertainty, risks are manifested due to conflict and alternative economic activities of enterprises in domestic and foreign markets. There is also such an approach as the complete avoidance of the risk of economic activity by abstracting from unreliable counterparties or investment decisions.

Risks are not only threats, but opportunities. One and the same event can have both negative and positive connotations. In addition to the obvious losses in connection with the pandemic, business also has new opportunities. The main thing is to dispose of them correctly.

This is helped by the standards written by life. All standards are based on the practices of successful companies. Using their experience, you can prepare for any situation and get out of the crisis with the least loss.

The COVID-19 pandemic has shown that risk assessment is not an empty formality. And those who carried out this work and constantly had potential threats in mind, who quickly reacted to changes, coped with the crisis and, moreover, were able to introduce new useful tools, work formats, and practices.

And, most importantly, the experience gained will not go unnoticed and it will be possible to use it in the future, after the end of the covid crisis.

PART 2. INVESTIGATION OF FINANCIAL RISK MANAGEMENT AT THE PrJSC “KALINOVSKIY MACHINE BUILDING PLANT”

2.1 Analysis of the enterprise financial state

Kalinovsky Machine-Building Plant Private Joint-Stock Company specializes in the supply and installation of equipment for the food and processing industries. The company is located in Kalinovka, Vinnytsia region, 67 Nezalezhnosti Street. The form of ownership is private. Organizational and legal form - a joint stock company.

The company is a legal entity in accordance with the legislation of Ukraine, has its authorized capital divided into shares, the amount of which is specified in the Charter; has an independent balance, current and other accounts, including currency, in banking institutions, round and other seals with the logo, corner and other stamps, trademarks and logos, letterheads, other necessary attributes.

The company implements complex projects - technological solutions, selection, design, manufacture, automation, supply, installation and wiring of equipment, commissioning, service, warranty and post-warranty service [29].

Main types of activity with indication of name of activity and code according to NACE: manufacture of machinery and equipment for food and beverage manufacturing, tobacco processing 28.93, manufacture of lifting and handling equipment 28.22, manufacture of machinery and equipment for agriculture and forestry 28.30.

Today, the company has the main shops: procurement, assembly, mechanical, foundry; auxiliary shops: tool, transport; as well as design and electrical departments.

Main directions of production: dairy industry - milk dryers, vacuum evaporators, baths for cheese salting, heat generators, circulating washing stations (SIR - sinks), crystallizers, pasteurizers; sugar industry - stackers of various

modifications, stackers; bakery production - tunnel-type bakery ovens, whistling cabinets; unloading equipment - unloaders of various modifications.

Most of the orders executed by the company are long-term (from 3 to 36 months). The main markets for the company are Ukraine, the Republic of Belarus and Turkey. The company manufactures and sells a variety of equipment for dairies, as well as machines for the sugar industry. The main clients in Ukraine are - "Dairy Alliance", ANVP "Visit", LLC "Ryhalsky milk powder plant" and LLC "Milksistem", Belarus - OJSC "Babushkina Krynka", OJSC "Kobrin butter and cheese plant" OJSC "Zhabinkovsky sugar plant" .

Authorized capital - UAH 3,763,000. In 2020, the average number of full-time employees is 410. The wage fund amounted to UAH 35972 thousand. Compared to the previous year, the wage fund decreased by UAH 12143 thousand. due to the reduction in the number of employees. The personnel program of the enterprise, aimed at ensuring the level of qualification of its employees to the operational needs of the plant, consists in proper and timely payment of employees, providing them with social and material benefits, which will interest staff in improving their knowledge and skills.

Modern trade in machinery and equipment is characterized by such features as:

- significant reduction in the life cycle of most types of goods in this group, artificial obsolescence, which is often facilitated by the state policy of accelerated depreciation and tax benefits for buyers of new and new products;
- increasing requirements for econometric, hygienic, environmental parameters of the product and its design;
- the need for compliance of machinery, equipment, components to the requirements of the International Organization for Standardization;
- concentration of 80% of world exports of engineering products in 12 industrialized countries (Japan, Germany, USA, France, Great Britain, Italy, Canada, Belgium, the Netherlands, Switzerland, Sweden, Korea); while 50% of world exports are to Japan, Germany and the United States;

- concentration of imports of machinery and equipment in industrialized countries: more than 60% of imports are in the United States, Germany, Britain, France, Canada, Italy, the Netherlands, Belgium, Japan, Spain and Switzerland, and the leaders in imports of machinery, equipment and vehicles are The United States, Germany and the United Kingdom - more than 35% of world procurement [30, p.20];

- active policy of national governments to stimulate the export of machinery and protection of national producers in order to maintain and develop the competitiveness of relevant sectors of the national economy in the world market.

PJSC "KMZ" independently carries out economic activity, forms plans on the basis of orders of consumers taking into account demand and a market situation.

As a result of economic activity PJSC "KMZ" receives certain financial results, tab. 2.1.

Table 2.1

Financial results of PJSC "KMZ" for 2014-2020

Indexes Thousand UAH	Years							The relative deviation of 2020 to 2019,%
	2014	2015	2016	2017	2018	2019	2020	
Net income from sales of products (goods, works, services)	49586	96786	74478	164167	186037	289177	111670	-61,4
Cost of goods sold (goods, works, services)	(40367)	(69563)	(69897)	(135224)	(151983)	(253979)	(90889)	-64,2
Gross profit (loss)	9219	27223	4581	29543	34054	35198	20781	-41,0
Other operating income	7718	4744	3711	32466	6776	10356	7601	-26,6
Administrative expenses	(4951)	(69330)	(7035)	(11587)	(12190)	(14453)	(13479)	-6,7

Continuation of tab.2.1

Selling expenses	(960)	(2884)	(1814)	(5353)	(7075)	(10008)	(10139)	1,3
Other operating expenses	(4590)	(5195)	(5710)	(32455)	(9144)	(8094)	(4692)	-42,0
Financial result from operating activities	6436	16955	(6267)	12614	12421	12999	72	-99,4
Other income	128	978	217	133	0	20	708	3440,0
Other expenses	79	43	40	94	30	14	11	-21,4
Financial result before tax	5347	17747	(-6090)	12653	12391	13005	769	-94,1
Expenses (income) from income tax	(407)	(3194)	(582)	(2247)	(2230)	(2731)	(28)	-99,0
Net financial result: profit loss	4940	14553	(6672)	10406	10161	10274	741	-92,8

Source: compiled by the author according to Appendix F, [29]

Net income from sales after a significant decline in the crisis year of 2014 in 2015 increased by 95.2%. But in 2016, net income has a significant decrease of 23%. As of January 1, 2016, the CIS Free Trade Agreement (FTA) with respect to Ukraine was terminated and, accordingly, the preferential regime for Ukraine in the CIS free trade zone was abolished, which led to a decrease in exports of equipment to the CIS countries and losses in UAH 6.672 million. In 2016-2019, net income increases significantly - in 2019 by 198.8% from the level of 2015, which indicates that the company not only has a positive trend in net income, but also increased its level compared to the post-crisis 2015 year. But due to the COVID-19 pandemic in 2020, net income fell by 61.4% from 2019 levels.

A significant increase in 2017-2019 in the cost of goods sold by 87.8%, with a significant increase in net income by 76.1%, led to a slight increase in gross profit by 19.1%.

The growth of administrative costs and marketing costs in the analyzed period indicates that the company needs to find ways to optimize such costs.

All of the above led to the fact that the company's net profit in 2017-2019 had a slight decrease from UAH 10.406 million to UAH 10.274 million. The company failed to restore the level of 2015, when the amount of net profit amounted to UAH 14.553 million.

Profitability indicators are relative characteristics of financial results and efficiency of the enterprise. They characterize the profitability of the enterprise from different positions and are grouped according to the interests of participants in the economic process and market exchange. Table 2.2 presents the calculations of profitability of the enterprise.

Table 2.2

**Profitability indicators of PJSC "Kalinovsky Machine-Building Plant"
for 2016-2020**

Profitability indicators	Calculation algorithm	Years				
		2016	2017	2018	2019	2020
Return on assets	Net income / Average annual amount of assets (balance) * 100%	-7,09	9,1	5,7	5,2	0,45
Return on total capital	Operating profit / Average annual amount of capital * 100%	-6,47	11,10	6,97	6,64	0,47
Return on equity	Net profit (loss) / Average annual amount of equity * 100%	-13,5	26,9	25,8	20,9	1,36
Profitability of product sales	Gross profit / Sales volume * 100%	6,15	17,9	18,3	12,2	18,6
Profitability of operating activities	Operating profit / Sales volume * 100%	-8,41	7,66	6,68	4,50	0,69

Continuation of tab.2.2

Net profitability of sales	Net profit / Sales volume * 100%	-8,96	6,32	5,46	3,55	0,66
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Source: compiled by the author according to Appendix F, [29]

The level of profitability is influenced by various factors, in particular, in 2016 PJSC "Kalinov Machine-Building Plant" suffered losses, respectively, was unprofitable. However, the following year, overcoming the negative impact of the abolition of preferential treatment for Ukraine in the free trade area within the CIS, restoring markets, became profitable. The level of profitability was significantly affected by the pandemic. Despite the fact that the company is profitable in 2020, most profitability indicators are catastrophically low, which indicates significant financial risks.

The financial condition of the enterprise is the main characteristic of the economic activity of the enterprise in the external environment. Thanks to him, you can determine the competitiveness of the enterprise, the main types of potential.

The state of the company's assets is also a significant factor. The dynamics and structure of the company's assets are given in tab. 2.3.

Table 2.3

**Dynamics and structure of assets of PJSC "KMZ"
for 2015-2020**

Characteristic	2015	2016	2017	2018	2019	2020	Relative deviation,%	
							2020 / 2015	2020 / 2019
1. Non-current assets								
Intangible assets	29	11	7	1837	786	0	-100,0	-100,0
Incomplete capital investments	100	22	451	1679	5463	8160	8060,0	49,4
Fixed assets	8175	10657	9958	19066	18313	13928	70,4	-23,9
Long-term financial investments that are accounted for using the equity method of other enterprises	239	239	239	239	239	239	0,0	0,0
Other financial investments	22200	22200	0	0	0	0	-100,0	-

Continuation of tab.2.3

Together under section 1	30743	33129	10655	22821	24801	22327	-27,4	-10,0
2.Current assets								
Stocks	18728	38616	49645	108500	84156	93122	397,2	10,7
Receivables	10072	22762	29214	50925	35620	26137	159,5	-26,6
Deferred expenses	13	28	18	15	36	139	969,2	286,1
Money and their equivalents	17723	5127	24625	27431	9637	15938	-10,1	65,4
Other current assets	2105	4640	10137	21419	6632	10951	420,2	65,1
Together under section 2	53095	71173	113639	208290	136081	146287	175,5	7,5
Balance	83838	104302	124294	231111	160882	168314	100,8	4,6

Source: compiled by the author according to Appendix F

During the analyzed period we see structural changes in non-current assets at the end of 2020, there are no intangible assets and significantly increased work in progress, fig. 2.1.

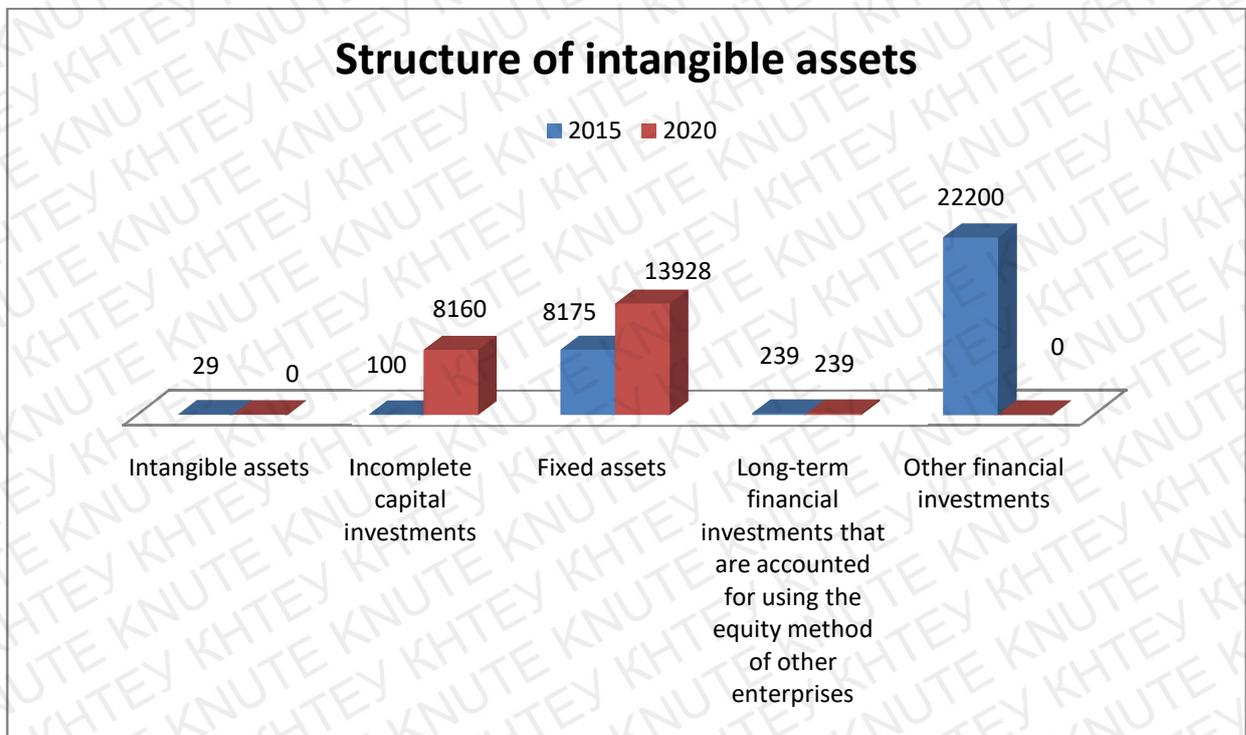


Fig.2.1. Structure and dynamics of assets of PJSC "KMZ" for 2015-2020, thousand UAH

Source: constructed by the author according to Appendix F

Analyzing current assets revealed that the structure has not changed over the past six years, but there is a tendency to increase inventories and receivables, which can be described as an ineffective policy of current assets management, which certainly increases financial risks, fig. 2.2.

Continuation of tab.2.4

for goods, works, services	8464	15836	16344	25482	17804	17495	106,7	-1,7
according to calculations with the budget	3363	318	311	489	171	394	-88,3	130,4
according to insurance calculations	376	325	249	414	560	311	-17,3	-44,5
according to payroll calculations	739	1236	1021	1613	2161	1298	75,6	-39,9
on received advances	13973	34852	65744	156137	83441	91834	557,2	10,1
Current supplies	0	0	0	0	0	0	0	0
Other current commitments	701	9257	5745	3146	2631	2437	247,6	-7,4
Total for section 3	27616	61824	89414	187281	106778	113769	312,0	6,5
Balance	83838	104302	124294	231111	160882	168614	101,1	4,8

Source: compiled by the author according to Appendix F

The authorized capital of PJSC " Kalinovsky Machine-Building Plant " is fully formed and paid in the terms established by the legislation. The reserve capital of the company for 2020 has not changed and amounts to 663 thousand UAH. There is no capital in revaluations. As of 31.12.2020, the company has no unpaid and withdrawn capital.

During the analyzed period, there is an increase in accounts payable, which also increases financial risks. At the beginning of 2020, accounts payable on the joint-stock company amounted to - 106778 thousand UAH, and as of 31.12.2020 is equal to - 113 769 thousand UAH. Thus, in the reporting period there was an increase in accounts payable. Liabilities for securities, bank loans and financial investments in corporate rights at the end of the reporting period are absent.

The assessment of financial stability allows you to determine how well the company managed financial resources during the period preceding this date. It is important that the state of financial resources meets market conditions and the needs of the enterprise itself, as insufficient financial stability can lead to a lack of funds for further development, and excessive - to hinder development, burdening the company with excessive inventories. In this case, the financial stability of the company is nothing more than a secure guarantee of liquidity, solvency,

independence from the coincidence of market conditions and the behavior of partners.

In the process of systematization of existing proposals for liquidity of the enterprise, it was found that most scientists to the factors influencing the liquidity of the enterprise include:

- qualitative structure of assets by the speed of their transformation into cash;
- the structure of sources of funds in terms of their maturity;
- the size of the final financial result of the enterprise;
- speed of working capital turnover;
- providing the company with working capital and their individual elements, etc.

Balance sheet liquidity characterizes the ability of the company to timely settle its current financial liabilities, current assets of different levels of liquidity.

The results of the calculation of balance sheet liquidity indicators are shown in tab. 2.5.

Table 2.5

Liquidity indicators of the balance sheet of PJSC "Kalinovsky Machine-Building Plant" for 2015-2020

Coefficient	Normative value	Years					
		2015	2016	2017	2018	2019	2020
Absolute liquidity ratio	$\geq 0,2$	0,624	0,830	0,275	0,146	0,090	0,141
Current ratio	$\geq 0,8$	1,241	1,232	1,271	1,112	1,274	1,286
Solvency ratio	≥ 2	1,923	1,151	2,563	4,273	1,974	2,074
Coefficient of financial stability	$\geq 0,75$	0,671	0,407	0,281	0,190	0,336	0,325

Source: calculated by the author according to Appendix F, [29]

The absolute liquidity ratio of the company as of 31.12.2020 is 0.141, which is insufficient compared to the estimated positive value of the indicator, which indicates that the company is not able to immediately repay its obligations.

The current liquidity ratio as of 31.12.2020 is equal to 1.286, which indicates a favorable liquidity condition of the joint-stock company's assets.

The coefficient of financial stability (or independence or autonomy) of the joint-stock company as of 31.12.2020 is equal to 0.325, which is within the approximate positive value and indicates sufficient financial independence of the joint-stock company.

The dynamics of liquidity ratios is given in fig. 2.3.

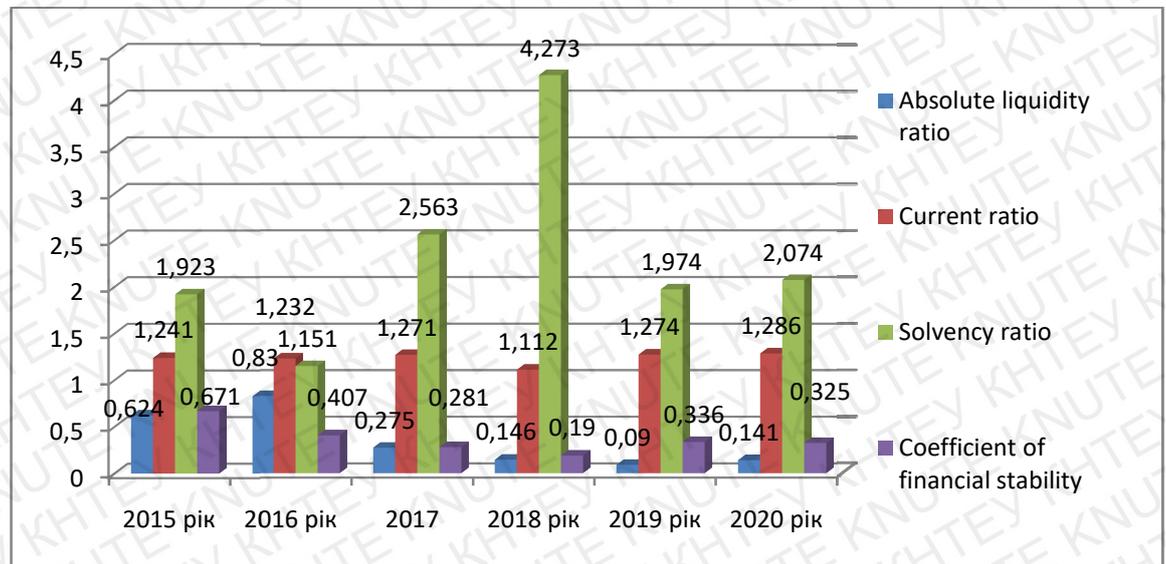


Fig. 2.3 Dynamics of liquidity ratios for 2015-2020

Source: constructed by the author according to Appendix F, [29]

There is a decrease in the financial independence of the company, as evidenced by the dynamics of the coefficient of financial autonomy. At the end of 2020 the company is able to independently finance 32.53% of its assets. The main task of the analysis of liquidity of the balance sheet - to check the synchronicity of income and expenditure of financial resources, to identify the ability of the company to pay its liabilities with its own property in certain periods of time. The liquidity of the balance sheet is determined by the degree of coverage of liabilities of the enterprise by its assets, the term of conversion into funds corresponds to the maturity of liabilities. The solvency ratio should be greater than zero, it is recommended to specify 0.3-0.6.

The company has no long-term liabilities, so the coefficient of financial stability is low. The financial stability ratio reflects what part of the asset is financed by the stable sources, ie the share of those sources of funding that the company can use for a long time in its activities. The value of this indicator during

the analyzed period is constantly decreasing, which is negative trend, and is less than the normative value.

Indicators of the size of groups of assets and liabilities, allocated on the basis of the degree of liquidity of assets and urgency of repayment of liabilities, are used in compiling the liquidity balance. Such indicators include:

- A1 - absolutely liquid assets, A2 - quickly liquid assets,
- A3 - medium liquid assets, A4 - hard liquid assets,
- P1 - term liabilities, P2 - medium-term liabilities,
- P3 - long-term liabilities, P4 - permanent liabilities [31, p.235].

The analysis of balance sheet liquidity by the method of balance proportions is to compare the aggregate assets of the balance sheet, grouped on the basis of reduced liquidity, with aggregated items of liabilities, grouped on the basis of increasing maturity [32].

For the estimation of the real solvency on an enterprise there is balance(calendar)) of payments on the short period of time(day, week, ten-day period, at most 1 month).

Balance is liquid if the terms of liquidity are executed driven to the tab. 2.6.

Table 2.6

Balance sheet liquidity conditions

Articles of asset	Liquidity condition	Liabilities articles
Cash	$A1 \geq P1$	Payables
Accounts receivable, short-term financial investments	$A2 \geq P2$	Short-term loans
Inventories	$A3 \geq P3$	Long-term loans
Non-current assets	$A4 \leq P4$	Equity

Source: constructed by the author according to [33, p.51].

The balance is called absolutely liquid if all four inequalities are fulfilled: $A1 > P1$; $A2 > P2$; $A3 > P3$; $A4 \leq P4$.

Determine how liquid was the balance sheet of the enterprise for the analyzed period, using the data in tables 2.7 and 2.8, 2.9

Table 2.7

Grouping of assets of the balance sheet of PJSC "KMZ" for 2015-2020

Group name	Code	2015	2016	2017	2018	2019	2020
The most liquid assets	A1	17723	5127	24625	27431	9637	15938
Fast-moving assets	A 2	16512	33869	38940	69243	56113	45297
Slow-moving assets	A3	14406	32177	50074	111616	70331	85052
Hard-to-sell assets	A4	30743	33129	10655	22821	24801	22327
Balance	1300	79384	104302	124294	231111	160882	168614

Source: calculated by the author according to the balance sheet of the enterprise Appendix F

During the analyzed period, there were no significant changes in the structure of assets. In 2020, assets that are sold quickly increased. Assets that are difficult to sell have become smaller. This indicates an increase in liquidity.

Table 2.8

Grouping of liabilities of the balance sheet of PJSC "KMZ" for 2015-2020

Group name	Code	2015	2016	2017	2018	2019	2020
The most urgent obligations	P1	27384	104302	89414	187281	106768	113769
Short-term liabilities	P2	0	0	0	0	10	0
Long-term liabilities	P3	0	0	0	0	0	0
Permanent liabilities	P4	51768	42478	34880	43830	54104	54845
Balance	1900	79384	104302	124294	231111	160882	168614

Source: calculated by the author according to the balance sheet of the enterprise Appendix F

The structure of liabilities for the analyzed period remains unchanged except that in 2019 there were short-term liabilities. The formation of assets is at the expense of own sources.

Table 2.9

The results of the liquidity analysis of the balance sheet of PJSC "KMZ" for 2015-2020

Inequality	The results of inequalities					
	2015	2016	2017	2018	2019	2020
$A1 > P1$	No	No	No	No	No	No
$A2 > P2$	Yes	Yes	Yes	Yes	Yes	Yes
$A3 > P3$	Yes	Yes	Yes	Yes	Yes	Yes
$A4 \leq P4$	Yes	Yes	Yes	Yes	Yes	Yes

Source: calculated by the author according to Appendix F

According to the analysis of the balance sheet becomes close to liquid.

Current liabilities exceed cash. However, if we analyze the assessment in more detail, there is a tendency to exceed the assets that are sold quickly, over short-term liabilities. They exceeded long-term liabilities, which allowed them to replenish the account of the obligations of the company.

A positive trend is observed in assets that are difficult to sell because they are smaller than fixed liabilities. This means that PJSC "KMZ" is fully provided with working capital, which is mobilized in receivables.

At the same time, the analysis of only the liquid assets of the enterprise is far from sufficient to determine the degree of its solvency and creditworthiness. Therefore, in practice, expect a number of other indicators.

2.2 Identification of enterprise financial risk

Identification of risks at the enterprise involves not fixing the fact of occurrence of a risky event, but identifying the possibility of such an event, which has mostly negative consequences. Thus, identifications are made in advance to be able to take risk management measures.

In order to determine the financial risks of the enterprise, we group them and describe. This information is provided in the Appendix G.

The main risk factors that affect the company's activities are:

- recession in the economy as a whole;
- reduction of purchasing power of the population;
- a significant level of inflation; instability of economic and tax legislation;
- instability of financial and currency markets;
- strengthening of competition in the industry;
- shortcomings in the production sphere;
- miscalculations in the field of supply;
- deficits in financing;
- low level of marketing and loss of markets for products. The degree of dependence on legislative or economic restrictions is significant.

We identify the financial risks of PJSC "Kalinovsky Machine-Building Plant" and give them the characteristics that we have demonstrated in the Appendix H.

The external risks associated with a pandemic should be singled out. The main planetary problem today is the Covid-19 virus. The crisis dispels hopes for economic growth in 2021, instead, world production is projected to be the lowest since the 2008-2009 financial crisis. The IMF believes that the level of economic growth will be lower than 2.9%, which was achieved in 2019 and will fall to 0.7%. The last time such indicators were recorded in 2009 [36, p.21].

According to a World Bank study, the coronavirus pandemic will have a negative impact on the fundamental factors of long-term economic growth, weakening its future prospects. This is confirmed by various data. Due to the coronavirus pandemic and the quarantine measures introduced by the Ministry of Economy based on the State Statistics Service, the fall in GDP in 2020 was 4.2%, which was significantly better than the pessimistic expectations of most experts and quite close to the Government's forecast (4.8%). approved in March 2020 and included in the budget. At the same time, according to the IMF, the Ukrainian economy shrank by 5% in 2020, the World Bank - 5.5%.

The COVID-19 pandemic has become a significant test for the countries of the world. The current global crisis is one of the deepest in 150 years. According to the World Bank, in 2020, world GDP decreased by 4.3%, US GDP - by 5.4%, and the GDP of the European Union - by 3.6%, world trade decreased by 9.5%. At the same time, China's economy grew by 2%, which reduced the global decline in GDP [37, p.270]. According to the State Statistics Service, Ukraine's GDP decreased by 4% in 2020. Therefore, now, during the economic crisis, it is more important than ever to focus on supporting production, namely the industrial sector, as a source of economic growth.

A pandemic to the coronaviruses strengthened negative tendencies in an engineer that during many years is in the crisis state. The worst results industry showed in April in 2020, when the sharp falling was tested by all subindustries (fig. 2.4).

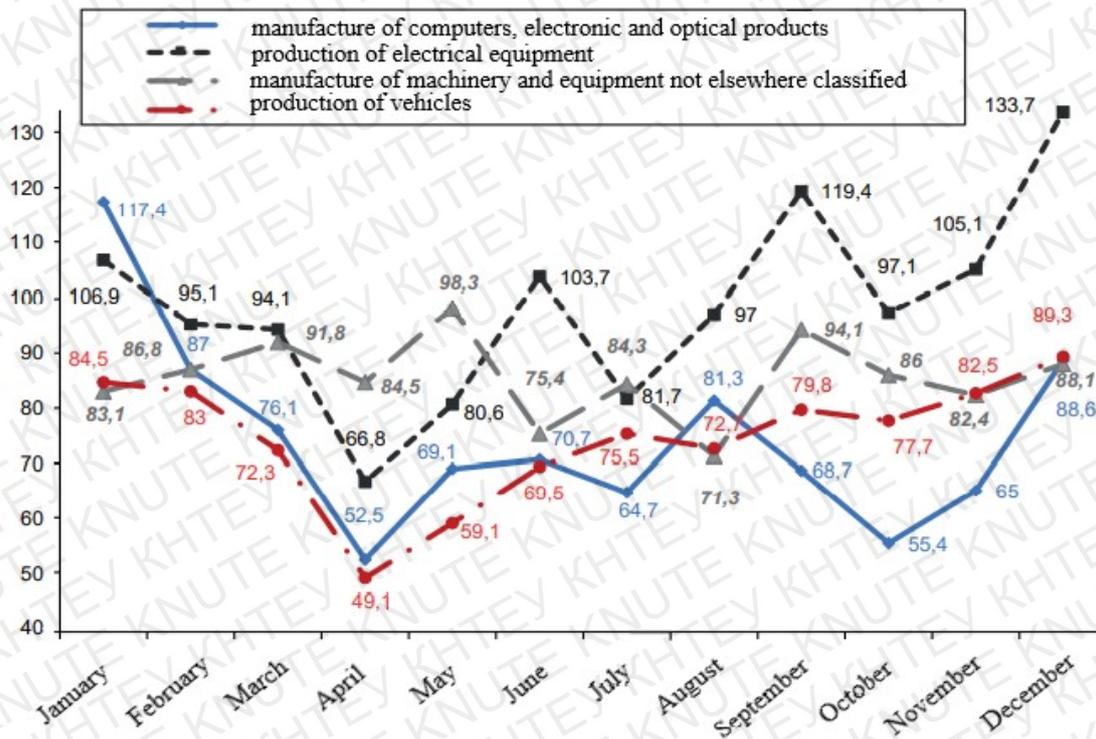


Fig. 2.4. Index of industrial products in subsectors of mechanical engineering in 2020,% to the corresponding month of the previous year.

Source: Government service of statistics [38]

Based on the above, a risk map was built for PJSC "Kalinov Machine-Building Plant".

The essence of the method is to identify all the risks that may affect the activities of the enterprise, and ranking them depending on the degree of impact on the activities of the enterprise. The risk mapping procedure is based on the application of expert judgment about the risks inherent in the enterprise, their probability of realization and significance for the enterprise (the level of possible losses). It is recommended to present the generalization of the opinion of experts about the risk map of the enterprise in a graphic form. In such a representation, one axis indicates the strength of the impact or the significance of the risk (level of losses), and the other indicates the frequency of occurrence of the risk or probability. At the same time, the risk map identifies the levels of tolerance (tolerance) of the enterprise to risks, namely:

- risks that fall into the light zone are acceptable to the company, ie those that the company can take without measures to reduce them;

- risks that fall into the dark zone are unacceptable for the company, ie those that require measures to reduce, neutralize or transfer.

Probability of risk	1,0				
	0,9		restrictions due to a pandemic		liquidity
	0,8		inflationary		insolvency
	0,7		tax	currency	turnover
	0,6			structural	profitability
	0,5	dividend			the risk of reducing financial stability
	0,4		credit risk		
	0,3				
	0,2	untapped opportunities			
	0,1	deflationary			
		minimal	allowable	controlled	critical

Fig. 2.5 Risk map for PJSC "Kalinov Machine-Building Plant"

Source: compiled by the author according to [29]

In times of economic and political instability, it is very important to forecast the situation and respond effectively to prevent or reduce the impact of instability factors on the financial condition of the enterprise.

2.3 Financial risk analysis at the enterprise

To summarize the results of the analysis of the internal and external environment of the enterprise and in order to identify internal and external opportunities and diagnose risks, we consider it necessary to conduct a SWOT-analysis for PJSC "Kalinovsky Machine-Building Plant". Data for SWOT-analysis are summarized in tab. 2.10.

Table 2.10

SWOT-analysis of PJSC "Kalinovsky Machine-Building Plant"

Strengths	Weak sides
<ul style="list-style-type: none"> - range of products that meet the needs of consumers; - many years of experience; - existence of contractual relations with partners in Ukraine and abroad; - qualified staff; - organizational culture with a focus on the European market. 	<ul style="list-style-type: none"> - a sharp deterioration in the financial condition of the company; - growth of accounts payable, the risk of loss of solvency; - increase in production costs; - lack of qualified personnel.
Opportunities	Threats
<ul style="list-style-type: none"> - access to new markets; - diversification, introduction of new productions; - increase in production and revenue; reducing the cost of production. 	<ul style="list-style-type: none"> - unstable, and sometimes crisis, situation in Ukraine; - reduction of sales volumes and orders; - difficulties in entering new foreign markets; - loss of part of the Ukrainian market due to lower construction rates. - pandemic restrictions; - unstable political and financial-economic situation in the country (due to the events taking place in the East of the country, shocks of the banking system, slowing economic growth, etc.).

Source: compiled by the author according to [29]

Analyzing the above data of the SWOT-analysis of PJSC "Kalinov Machine-Building Plant", it can be stated that, despite the fact that the company has a number of weaknesses and may face numerous external threats, its strengths and potential opportunities will be enough to achieve positive effect.

The company has an internal control system of the Company includes all internal rules, regulations and control procedures introduced by the company's management to achieve the goal - to ensure (within possible) stable and effective operation of the company, compliance with domestic policies, use and preservation of the company fraud prevention, timely detection of errors, compliance with the accuracy and completeness of accounting records, timely preparation of reliable financial information. The Auditor supervises the accounting and preparation of the Company's financial statements. The financial statements of the Company are prepared in accordance with the National Accounting Provisions (Standards) on the basis of actual accounting data, taking into account the necessary adjustments,

to ensure its compliance with the basic principles and qualitative characteristics used as a characteristic. In the reporting year, the Auditor conducted an audit of the financial and economic activities of the Company for 2020.

The first step to assessing the effectiveness of risk management of financial activities is to determine the type of stability of the enterprise. To do this, it is necessary to compare the following balance sheet elements: inventories (EA), working capital (SOC), short-term loans (CC), accounts payable (CU), overdue short-term loans (PAC), overdue accounts payable (PAC). NDF - normal sources of stock formation, which are defined as the amount of working capital, bank loans to cover stocks, accounts payable for goods $NDF = SOC + CC + CU$.

There are 4 options for stability:

- 1) $EA < SOC$ - absolutely stable financial condition;
- 2) $SOC < EA < NDF$ - normal stable financial condition;
- 3) $EA \geq NDF$ - pre-crisis (unstable) financial condition.

It indicates a situation where inventories and costs are greater than normal sources of funding, so the company is forced to attract additional sources of funding.

- 4) $EA \geq (NDF + PAC)$ - financial crisis (on the verge of bankruptcy).

Based on the analysis of the financial condition of the second section of the work, we note that the company has significant problems in managing the risks of financial activities is inefficient.

To cross-check the results of preliminary calculations should apply another method of identifying the financial crisis in the enterprise. This technique is based on the analysis of the structure of the balance sheet and involves the use of relative indicators to determine trends in the solvency of the enterprise.

In order to avoid subjectivism in determining the signs of a crisis on the basis of the analysis of financial ratios, it is necessary to develop a clear algorithm for assessing the satisfaction of the structure of the balance sheet of the enterprise. The following algorithm is used in Ukrainian practice.

If the structure of the balance sheet based on the analysis of current liquidity ratios (K1) and the ratio of own working capital (K2) is considered satisfactory, the stability of the financial condition of the enterprise is additionally assessed using the solvency ratio (K3), which is determined by the formula :

$$K_3 = \frac{K_{1\phi} + 3}{T(T_{1\phi} - K_{1n})} \div 2 \quad (2.1)$$

where $K_{1\phi}$ - is the actual value (at the end of the reporting period) of the current liquidity ratio; K_{1n} - the value of the current liquidity ratio at the beginning of the reporting period; 3 - regulatory term of loss of solvency (3 months); T - reporting period in months.

If the value of $K_1 < 2$ and $K_2 < 0.1$, the company tends to lose solvency.

If, according to the results of the analysis, the structure of the balance sheet is determined to be unsatisfactory, then the recovery coefficient (K4) is additionally calculated for the next 6 months according to the formula:

$$K_4 = K + \frac{6}{T(K_{1\phi} - K_{1n})} \div 2 \quad (2.2)$$

Table 2.11

Actual values of K1 and K2 of PJSC "Kalinov Machine-Building Plant"

Coefficients	2018	2019	2020
K1	1,271	1,112	1,274
K2	0,193	0,348	0,349
K3	0,626	0,516	0,678
K4	0,374	0,484	0,322

Source: Compiled by the author according to the company's financial statements

This table shows that in 2018 the value of K1 is lower than normal, which means that the company is likely to lose solvency, but in 2020 we have a tendency to improve.

The solvency recovery ratio K3 is less than one, which means that the company will most likely not be able to restore solvency within the next 6 months without active intervention and measures to manage the risks of financial activities.

After assessing the effectiveness of risk management of financial activities of the enterprise, it was found that the company may be threatened by a financial

crisis, which could lead to bankruptcy. Models for predicting the bankruptcy of enterprises are demonstrated in the appendix I.

It should be noted that the Altman model was developed in 1968, and after that the macro- and microeconomic conditions of the enterprise have changed significantly. In addition, the model does not take into account the sectoral characteristics of the development of domestic enterprises and their inherent forms of business organization. These shortcomings can be avoided only by developing our own models for predicting bankruptcy, taking into account our current realities.

Thus, according to the model of G. Springgate, enterprises are potentially bankrupt throughout the period under study, although according to the model of R. J. Taffler, they have a good long-term perspective. Empirical data confirm the fact that the specifics of domestic business (inflation, tax legislation, the degree of stock market development, regulatory accounting, etc.) makes it impossible to adequately apply foreign models of bankruptcy forecasting to obtain reliable results. This problematic aspect initiated the large-scale development of similar approaches in the post-Soviet space. Ukrainian realities and sectoral features of domestic enterprises are reflected in the discriminatory model of O. Tereshchenko and the official methodology of the Ministry of Finance of Ukraine within the Procedure for assessing the financial condition of the beneficiary and determining the type of collateral for servicing and repaying loans provided by international financial organizations [39, p.257, 46,47]. Using well-known models for determining the probability of bankruptcy, tab. 2.12.

Table 2.12.

Determining the probability of bankruptcy of PJSC "Kalinov Machine-Building Plant" in order to manage financial risks

Model	Indicator value		
	2018	2019	2020
Altman's model	1,45	2,13	1,26
Springgate model	0,56	1,22	0,67
Taffler and Tishaw model	0,33	0,58	0,46
Tereshchenko's model	1,16	1,32	1,25

Source: Compiled by the author according to the company's financial statements and [40,

Analyzing the output data, we can conclude that the company has a low probability of bankruptcy, but the risk of deteriorating financial condition remains.

The study showed that for effective risk management in the enterprise it is advisable to go through a certain stage, namely: risk identification, risk assessment and minimization.

According to the results of the study of the third section, we came to the conclusion that in our opinion, to minimize the impact of risks, machine-building enterprises should have their own developed management program.

Summing up the conclusions of the second section, we can say that financial statements of the Company for 2020 are prepared in accordance with the Law of Ukraine "On Accounting and Financial Reporting in Ukraine with changes and additions" based on actual accounting data and gives a true and impartial reflection of the financial position of the Company in 31.12. 2020. There is no separate Regulation on "Systems of internal control and risk management of the issuer", which would summarize all control measures carried out in the course of economic activity and approaches of management personnel to risk management at the Company. The Company analyzes the terms of occurrence of assets and repayment of liabilities and plans its liquidity depending on the expected terms of repayment of the relevant financial instruments. In accordance with the plans of the Company, its needs in working capital are met by the receipt of cash from operating activities. The company does not attract credit resources. Proceeds from operating activities are sufficient for timely repayment of liabilities. The Company mainly places its cash and cash equivalents in large reputable banks located in Ukraine. The management carries out constant monitoring of the financial condition of the institutions where the funds and their equivalents are placed. Credit risk is associated with the failure of banks to meet their obligations and is limited by the amount of cash and cash equivalents. The company mainly carries out operations only with verified and creditworthy clients in the domestic market. In addition, management conducts an additional procedure for monitoring financial information about customers on a quarterly basis. Other risks are tracked and

analyzed in each case. Management monitors its capital structure on a regular basis and may make adjustments to its capital management policy and objectives, taking into account changes in the operating environment, market trends or its development strategy. Since the identified financial risks include both external and internal, it should be noted that the company can not influence external risks, the main task of risk management is to identify them and predict the probability of their occurrence. The task of risk management in relation to internal risks is their identification, ranking according to the probability of occurrence and determining their impact on the enterprise, and the main prevention of these risks. In the future, we will focus on the internal risks of PJSC "Kalinovsky Machine-Building Plant", consider how they can be managed. General recommendations for reducing the impact of financial risks may be the following:

- drawing up a new business plan aimed at the financial recovery of the enterprise;
- conducting regular audits to control the financial statements;
- creation of a reserve risk fund at the enterprise, the funds of which can be used in case of unexpected adverse situations, etc .;
- in order to prevent fines from the tax service to control the emergence of new regulations;
- control of future financial expenses of the enterprise;
- refusal to carry out financial transactions, the level of risk of which is excessively high;
- refusal to continue business relations with partners who systematically violate contractual obligations;
- refusal to use high amounts of borrowed capital;
- development of a program to reduce costs and control accounts payable and receivable, etc.

It is necessary to pay special attention to the risks of non-repayment of financial debts. In recent years, there has been a marked increase in the amount of receivables.

PART 3. WAYS OF IMPROVEMENT THE FINANCIAL RISK MANAGEMENT SYSTEM AT THE PrJSC “KALINOVSKIY MACHINE BUILDING PLANT”

Dynamic changes in the economic environment of functioning of industrial enterprises are accompanied by external and internal calls and threats, that increase in the conditions of turbulence of economic processes that predetermine the origin of the crisis phenomena and risk events with corresponding negative cost implications. A vagueness and changeability of economic environment complicate planning and prognostication of the expected results of menage, creates the danger of origin of unforeseeable financial losses, that can result not only in the decline of solvency and investment attractiveness of enterprise, loss of competitiveness of products, and in a pessimistic scenario - to bankruptcy and liquidation.

Globalization and integration processes that take place during the last decades in outer economic space protracted character of фінансово-економічної crisis that feel on itself national economies, entailed the increase of the scientifically-applied researches in the field of a management, negative consequences of their display sent to minimization, financial risks. Without regard to the increase of scientific interest and activation of the scientifically-applied researches in the marked sphere, the problems of management financial risks need further research, in particular in the aspect of analysis of risk environment and exposure and estimation of financial risks of industrial enterprises of different types of activity.

Financial risks are a basic element in the system of threats to the stable functioning and development of industrial enterprises, by the consequence of unweighed administrative decisions and influence of factors of environment, that appear under different circumstances related to inconsistency of cooperation between the subjects of market, by imperfection of relationships with state structures, instability of legislation, origin of the force-majeure circumstances, caused by a natural calamity, technogenic and natural catastrophes, by military operations and others like that. Productive and financially-economic activity of

industrial enterprise is related to the different types of risks, able to result in negative cost implications. To avoid factors that cause financial risks, it is impossible, however their minimization is possible at the terms of early exposure of their negative influence on the financial state of industrial enterprise. A financial risk that arises up in the process of functioning of industrial enterprise results in financial losses, the volume of that is determined by both the size of rejection of actual indexes from планових and character of certain financially-economic operations, meaningfulness of factors that cause risks, by their influence on financial end-point.

The exposure of primary causes of origin of factors that result in negative cost implications allows as a result of their analysis to educe certain errors in the acceptance of administrative decisions in the process of financially-economic activity. It is therefore possible to assert that counteraction to the financial risks can be effective, if a financial result depends on a person that accepts financial decisions. The necessity of systematic analysis of the financial state of industrial enterprise swims out from here. Monitoring of the financial state of industrial enterprise is an infobase for providing of effective operative management factors that cause financial risks a way them timely exposure and development of corresponding events in relation to their neutralization.

Minimization or removal of financial risks of industrial enterprise is based on counteraction to the factors, that they are caused. Therefore an exposure of factors that cause financial risks is an important enough element in the system of events in relation to a decline or removal of financial risks of industrial enterprise.

Minimization of financial losses or their non-admission is the ultimate goal of counteraction to the financial risks in the process of functioning of industrial enterprise. Indexes of the financial state of industrial enterprise, loud speaker of their changes and undesirable rejections of actual indexes from pre-arranged, it is possible to examine as indicators of exposure of financial risks. Stage-by-stage process, beginning from the exposure of financial risks with corresponding factors, that they are caused and completing development and realization of events in

relation to counteraction to the risks, it is brought around to fig. 3.1. High probability origins of financial risks, that cause considerable financial losses, are objective reason of violation of financial stability of industrial enterprise, substantial decline of financial safety that can entail his bankruptcy and liquidation. Providing of фінансово-економічної safety depends on the degree of налагодженості of technological processes of production and testability of results of financially-economic activity of industrial enterprise, timely exposure of undesirable rejections of financial indexes from their normative values, their analysis on the sources of origin, by the nature of displays in time, after the level of possible financial losses, after possibility of foresight, after possibility of minimization of influence on financial results and other.

On this chart attention is concentrated on financial risks, strengthening over of influence of that on financial activity of industrial enterprise can bring to critical financial strength security with heavy consequences or to his bankruptcy, that requires developments and introductions of effective events, that have them to minimize or remove.

As a result of research the chart of support of financial stability of industrial enterprises, that is based on the analysis of indexes them financial activity, is worked out, fig. 3.1.

Depending on the features of productive process and branch belonging of industrial enterprises the corresponding spectrum of characteristic types of financial risks, peculiar for the certain group of family after the type of financially-economic activity of the marked enterprises, appears in the process of their functioning. The conceptual chart of forming of events of counteraction to the financial risks of industrial enterprises envisages the detailed analysis of reasons of their origin that needs distribution of industrial enterprises after groups depending on character of activity and branch belonging.

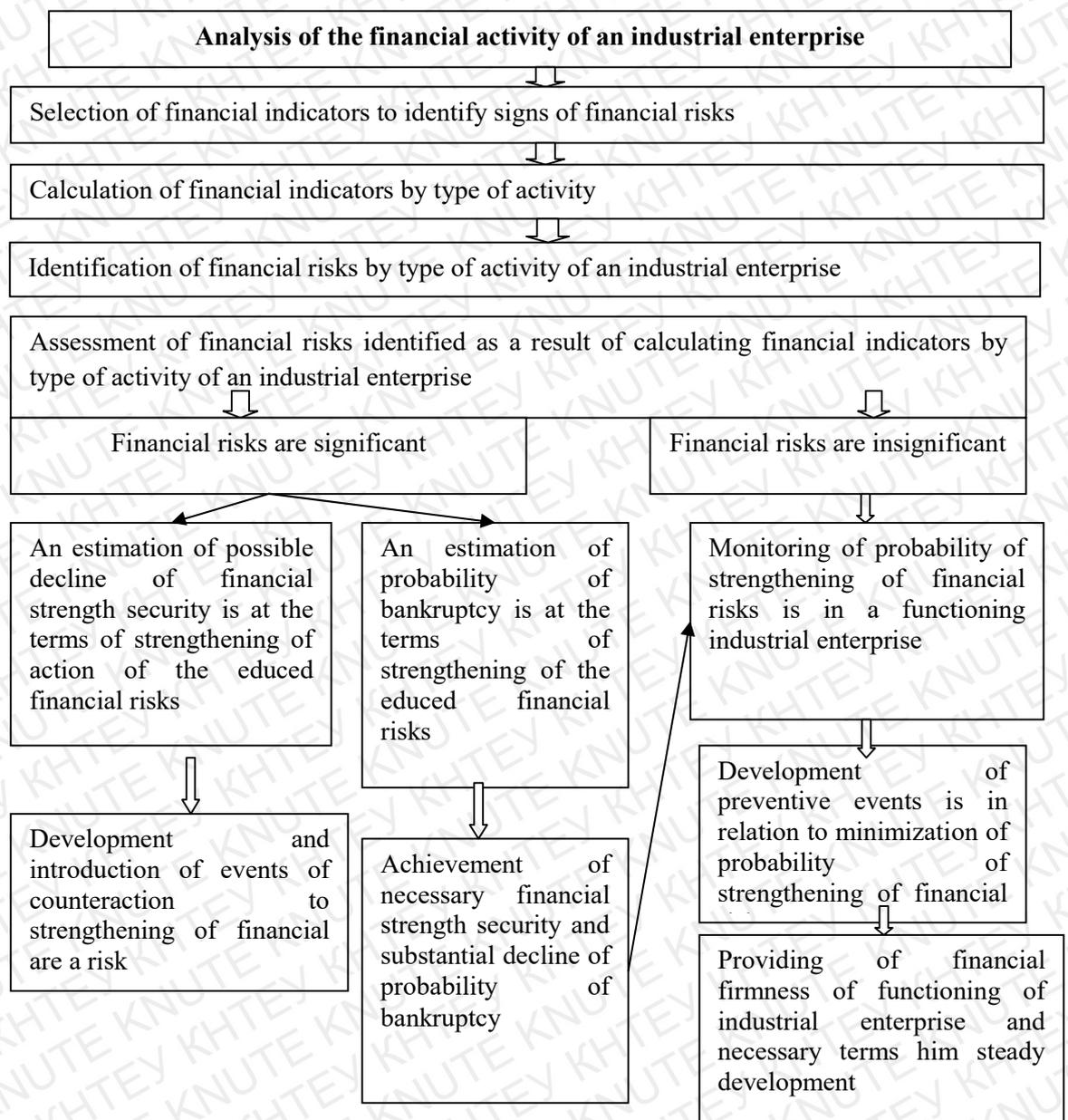


Fig. 3.1. Generalized chart of support of financial stability of enterprise

Source: Compiled by the author [43, p.90]

Depending on the features of productive process and branch belonging of industrial enterprises the corresponding spectrum of characteristic types of financial risks, peculiar for the certain group of family after the type of financially-economic activity of the marked enterprises, appears in the process of their functioning. The conceptual chart of forming of events of counteraction to the financial risks of industrial enterprises envisages the detailed analysis of reasons of their origin that needs distribution of industrial enterprises after groups depending on character of activity and branch belonging.

Will notice that probability of origin of financial risks and possibility of financial losses depend on certain direction of productive activity and stage of life cycle of industrial enterprise. The existent varieties of industrial enterprises in the process of functioning suffer from the threats of internal and external environment, the action of that appears in a generation, revolting impulses on all directions of financial, operating-room and investment activity, in the process of realization of basic financial tasks that consist in providing of financial equilibrium and necessary level of profitability; increase of property of enterprise (especially in part of the fixed assets, that participate in creation of products).

At the leadingout of industrial enterprise on the level of the safe functioning monitoring of sources of origin of financial risks is envisaged with an aim them timely exposure, minimization or liquidation and row of preventive events in relation to doing of their displays impossible.

The main approaches to risk planning based on a balanced scorecard are given in tab. 3.1.

Table 3.1

Basic approaches to risk planning based on a balanced scorecard

№	Brief description of the approach	The main advantages	The main disadvantages
1	Introduction of risk-oriented indicators (BSC plus)	- ease of implementation; -availability in perception	- threat of not taking into account some risks; - unclear distribution of staff responsibilities for related risks.
2	Complementing the classic BSC perspective "Risks"	- expanding the range of risks; - separate positioning.	- violation of causal relationships; - complicating the planning process.
3	Replacing projections with strategic success factors (BCR-card)	- not only risks but also chances are considered; - the block "External environment" is selected.	- significant implementation costs; - lack of clear responsibility for risks.
4	Combination approaches №2 and №3	Allocation of risks in a separate BSC; - automation of causal relationships.	Significant implementation costs; - difficulty in understanding.

Source: Compiled by the author [44, p.137]

The authors approaches №3 and №4 by Skakalsky Yu.S. among their main advantages highlight the full focus on the value of the company, expressed in terms

of DCF, EVA and MVA. Obviously, this approach is relevant, however, full concentration on one indicator can cause a conflict of interest, in case of need to make non-standard, but strategically correct, decisions that may adversely affect the targets for the near future.

In our opinion, such an unappealable focus on one indicator is unjustified, because cost-oriented indicators can be positioned as the main among a number of others in the classic variations of BSC, without complicating the process of strategic planning.

We propose to use the BSC plus approach, ie to supplement the "finance" projection with quantitative risk-oriented indicators, most of which are calculated using the weighted average cost of capital (WACC). In modern economics, WACC is understood as the return that investors expect when investing in an enterprise. The weighted average cost of capital is a predictable indicator, so it is subject to uncertainty, and therefore can be a guide for strategic risk planning in a balanced system of indicators focused on indicators of business value growth. Given the economic nature of WACC, it is clear that it is most affected by interest rate risk, the threshold values of which must be taken into account in strategic risk planning.

Despite the fact that there are many different methods of determining risks, in practice for industrial enterprises often use the method of cost-effectiveness analysis (the method of M. Ya. Petrakov, the method of assessing financial stability) [45, p.177].

It consists in identifying potential risk areas, in determining possible overspending due to incorrectly estimated value from the beginning, changes in the range of goods and services compared to the project, differences in design and productivity, changes in planned costs at the appropriate stages of production. The task of the method is to assess the risk of loss of financial stability by the company as a result of investments. An important stage of the risk management program, in our opinion, is the formation of a list of methods of influencing risks and determining the best methods for each of the groups of financial risks. The tab. 3.2 shows the methods of influencing the risks.

Table 3.2

Characteristics of methods of influencing risks

Group of methods	Characteristic
Risk avoidance	It is characterized by simple evasion of the measure connected with risks, but avoidance of risk most often means refusal of profit
Risk retention	Characteristically, the manager is fully responsible for the risk and in case of losses expects to cover them at their own expense
Risk transfer	It is characterized by the fact that the manager delegates responsibility for the risk to someone else, such as an insurance company
Risk diversification	It characterizes the process of distribution of invested funds between different objects of capital investment, which are not directly related to each other, in order to reduce the degree of risk and loss of income. Diversification is the most reasonable and relatively less expensive way to reduce the degree of financial risk
Hedging	Use of financial instruments that avoid or limit the risk of financial transactions as a result of adverse changes in exchange rates, commodity prices, interest rates in the future through the purchase or sale of futures contracts.
Limiting	Setting the maximum amount of losses from the occurrence of a risk, sale or loan. It is used in most companies that conduct credit and investment activities

Source: Compiled by the author [4, 45, p.198, 46, p.373]

For machine-building enterprises, in our opinion, it is advisable to choose such methods of influence as reducing the amount of losses, reducing risk, diversification of suppliers, self-insurance.

The choice of method or methods for optimizing specific types of risk depends on factors such as the size of losses and financial capabilities.

Completes the development of a risk management program to evaluate the effectiveness of this program. A detailed and informative evaluation of the effectiveness of the program can be done using an integrated approach. This approach includes:

- evaluation of the final results of work and efficient use of labor resources;
- evaluation of the effectiveness of system resources;
- evaluation of general performance indicators of a particular system;

- assessment based on balancing the interests of groups of external and internal environments.

Risk analysis and risk management system is proposed to be used at each enterprise when situations arise:

- projects are planned in the organization to improve the functioning;
- increasing safety and managing potential risks in the workplace;
- the company is preparing for events such as equipment failure, technology, staff illness or natural disasters;
- changes in the external environment are expected, for example, competitors entering the market or changes in policy.

With the help of experts, it was determined which of the methods is best applied to each risk group. A group of experts was formed to conduct the expert evaluation, which included both scientists who study the current stage of development of domestic engineering, and specialists who work directly at machine-building enterprises.

Table 3.3

**Determination of methods of influencing the financial risks of PJSC
“Kalinovsky Machine - Building Plant”**

№	Risks of PJSC “Kalinovsky Machine - Building Plant”	Recommended methods of influencing risks
1	Inflation, currency, deposit	Hedging
2	Tax	Limiting
3	Credit, dividend, investment	Risk avoidance, limitation
4	Liquidity, profitability	Risk retention
5	Risk of reduced financial stability	Risk retention
6	Restrictions due to a pandemic	Risk retention

Source: Compiled by the author according to the company

The ratio of different activities at a particular enterprise is determined by the initiator of the implementation of risk management procedures. The sequence of construction of the risk management system of PJSC "Kalinov Machine-Building Plant will be as follows, fig. 3.2

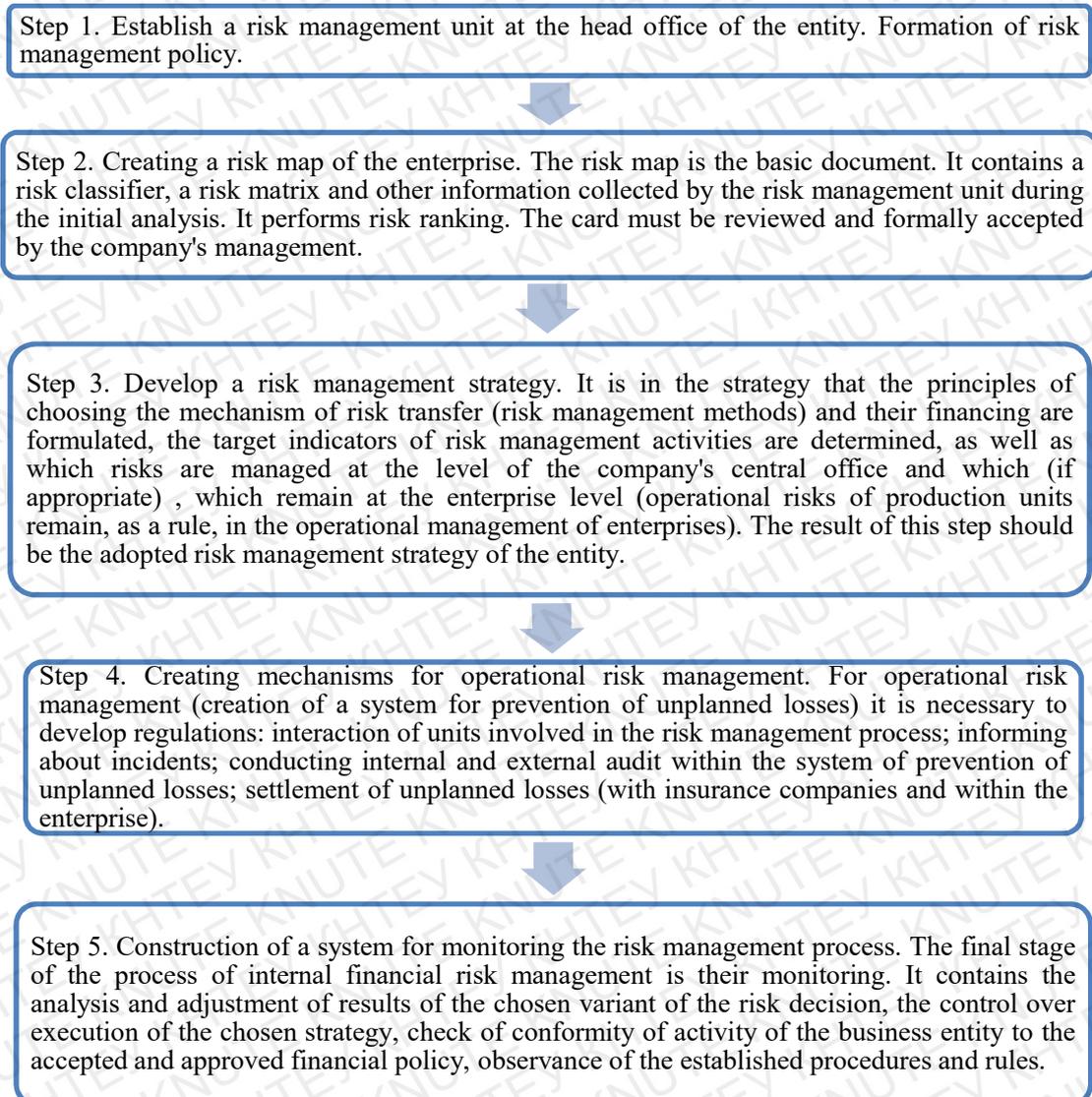


Fig. 3.2 Sequence of construction of risk management system of PJSC “Kalinovsky Machine - Building Plant”

Source: Compiled by the author according to the company

For successful financial risk management, we propose to develop and maintain a register of risks, appointing a responsible person or department. Keeping a register of risks at the enterprise PJSC "Kalinovsky Machine-Building Plant" will allow to identify them and understand how to manage them. The form of the register is shown in the appendix J.

In the process of analyzing the company's attitude to financial risk, it was found that among the risks to be managed by management identifies only currency risk and credit risk (non-repayment of receivables), however, a bottom-up study showed a much wider list, which shows the existence of a conflict of interest

between the "principal agent" or mental traps. In our opinion, the key tasks of controlling financial risks at the stage of identifying financial risks by the method of "bottom-up" is to identify and minimize the impact of behavioral factors using a model of controlling behavior. Very often in the enterprise there is a situation when an individual ignores certain probabilistic factors, important limitations or chooses the wrong basis for calculations. At the same time, the individual may also have subjective personal monetary preferences or emotional attachment to certain aspects (problems). It is in solving these problems that the basic essence of the behavioral approach to risk identification is manifested.

Describing the existing mental traps at the enterprise, A. Aschenbrücher notes that the concept of behavioral controlling does not rule out the fact that certain restrictions in the process of information processing by managers and controllers may cause a lack of necessary skills [47, p.192].

Ideas of absolutely rational behavior of the individual are utopian, because rationality and mental capacity are limited, and, consequently, even managers in a complex, uncertain and dynamic environment can make only to some extent reasonable decisions. In our opinion, such mental traps in the identification of financial risks by the method of "top-down" are more dangerous because they relate directly to management decisions. The list of detected traps is given in the appendix K.

Please note that when managing the risks of the enterprise, when maintaining a register of risks, it is necessary to take into account the above mental traps.

To increase the efficiency of the enterprise it is advisable to implement the following measures:

- anti-crisis program;
- opening a risk management department as part of improving the risk management system.

The Strategic Plan of PJSC "Kalinov Machine-Building Plant" will include a number of measures that in the future can bring the company out of crisis and

increase the efficiency of its activities. Risk-oriented management is considered as a special activity of the enterprise, which is aimed, on the one hand, to mitigate the impact of negative external and internal risk factors on performance, ie profit, and on the other - to use the possible positive impact of such factors.

To develop an effective risk management system at PJSC "Kalinov Machine-Building Plant" it is envisaged to create a risk management department and calculate the economic consequences of risk management using a cost approach. The integrated risk management system in the department will include the application of the model of three lines of protection [51, p.544]. This model is based on:

- first line - at the level of operational management of the enterprise. These units accept and are responsible for risks and report on the ongoing management of such risks;
- second line - at the level of the risk management unit and the compliance control unit, which monitors the implementation of effective risk management practices, internal control, compliance with legislation and administrative rules / internal regulations and fraud investigation;
- third line - at the level of the internal audit department to verify and assess the effectiveness of the risk management system, which provides top management with a conclusion on the accuracy of risk assessment and the effectiveness of their management [46].

We propose to create a Risk Management Department at the location of the main office, so the cost of finding and renting the premises is not expected. However, there is a need to repair the existing premises, purchase additional furniture, payroll costs, energy consumption, and so on. Suppose that the repair work of a room with an area of 23.5 m² will amount to UAH 40,000.

The calculation of equipment costs of the Office of Risk Management is presented in table. 3.4.

Table 3.4

Project costs for machinery and equipment

Machinery and equipment	Price, UAH	Quantity, items.	Total cost, UAH	Established service life, years	Annual amount of depreciation, UAH
Tables	6000	5	30000	7	4286
Chairs	833	12	10000	7	1429
Cabinets	8831	5	44156	8	5520
ASOS 2284N computers	37000	5	185000	5	37000
Office equipment (Canon N00e printer, Zeplin 576 scanner, Kodak R4 fax)	53480	1	53480	6	8913
Electrolux turbo 378 air conditioner	7800	2	15600	8	1950
Total	95445	-	338236	-	59097

Source: calculated by the author on the basis of the enterprise data

From the table. 3.4 we see that the annual amount of depreciation of machinery and equipment will be 59097 UAH. The next step will be the calculation of heating, lighting and water supply. The area of free space, under which it is planned to create a department, is 23.5 m². The calculations are presented in tab. 3.5.

Table 3.5

Project energy costs and water supply costs

Expense items	Expenses per year, UAH
Heating, Gcal	58750
Power supply, kWh	70500
Lighting, lux	35250
Water supply, m ³	28200
Total	192700

Source: calculated by the author on the basis of the enterprise data

The next step will be to calculate the salary fund of employees of the new department. The calculations are presented in tab. 3.6.

Table 3.6

Remuneration of employees of the risk management department

Position	Number of staff units	Annual salary fund, thousand UAH	Accruals to the salary fund, UAH
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Continuation of table 3.6

Head of Risk Management	1	266400	52800
Risk manager	2	187200	41184
IT-specialist	1	240000	58608
Analyst	1	180000	39600
Total	5	873600	192192

Source: calculated by the author on the basis of the enterprise data

The costs for two years of the office will be:

1 year: $338236 + 59097 + 192700 + 873600 = 1463633$ UAH

2nd year: $59097 + 192700 + 873600 = 1125397$ UAH

The next step will be to calculate the effectiveness of risk management from the establishment of the Risk Management Office at PJSC "Kalinovsky Machine-Building Plant". There are many concepts for calculating the effectiveness of risk management. The cost approach is characterized by the excess of risk management results over costs in the management process. The company's costs for risk neutralization (mitigation) should not exceed the amount of financial losses from the risk, even with the extreme probability of a risky event. These criteria for the effectiveness of risk management should be met in self-insurance and management of external threats to economic security.

To determine the effectiveness, the excess of the effectiveness of risk management over the costs of E_p by the formula is calculated [6]:

$$E_p = R_p - C_p \quad (3.1)$$

where R_p – the result of risk management (possible reduction of the impact of risk as the end result of risk processing);

C_p – risk management costs.

Table 3.7

Calculation of the effectiveness of risk management as a tool to improve the effectiveness of crisis management

Indicator	2022	2023	Total
The result of risk management as an increase in the financial result from operating activities (R_p), UAH	1949850	2599800	4549650

Continuation of table 3.7

Risk management costs (Cp), UAH	1463633	1125397	2589030
Effectiveness of risk management (Ep), UAH	486217	1474403	1960620

Source: calculated by the author on the basis of the enterprise data

The result of risk management as an increase in the financial result from operating activities (Rp) was defined as an increase in operating profit by 10% in 2022 and by 15% in 2023.

Thus, from tab. 3.7 we see that the overall effectiveness of risk management for two years in absolute terms is 1960620 UAH.

Another area of financial risk management should be identified. This is the construction of a risk control system through the interaction of financial risk controlling and internal audit. The methodology of building an internal audit service based on risk orientation gives owners an effective tool for monitoring the effectiveness of risk management, in addition, risk-oriented audit provides additional information support to management, thereby insuring the risk control process in the company using its own specific techniques.

CONCLUSIONS AND PROPOSALS

Risk identification is a very important stage of risk management, especially financial, at this stage the foundation of the risk management process in the enterprise is laid.

In accordance with the set goal, the theoretical qualification and development of practical recommendations for improving the financial risk management of PJSC "Kalinovsky Machine-Building Plant" were carried out in the final qualification work.

Theoretical principles of financial risk management at the enterprise are investigated. It is determined that financial risks are a type of risks associated with the implementation of the enterprise. That is, it is primarily related to profit as the main financial result of any business activity.

The identification of financial risks of PJSC "Kalinov Machine-Building Plant" is carried out. Their grouping is made and their manifestation at the enterprise is described. Among the listed risks of the enterprise, it was determined that they have a neutral on the negative effect. In particular, inflation risks and currency risks are offset by profits and so on. The external risks associated with a pandemic are highlighted.

A risk map has been built for PJSC Kalinov Machine-Building Plant.

In times of economic and political instability, it is very important to forecast the situation and respond effectively to prevent or reduce the impact of instability factors on the financial condition of the enterprise.

To summarize the results of the analysis of the internal and external environment of the enterprise and to identify internal and external opportunities and diagnose risks, a SWOT-analysis was conducted.

General recommendations for reducing the impact of financial risks may be the following:

- drawing up a new business plan aimed at the financial recovery of the enterprise;

- conducting regular audits to control the financial statements;
- creation of a reserve risk fund at the enterprise, the funds of which can be used in case of unexpected adverse situations, etc. ;
- in order to prevent fines from the tax service to control the emergence of new regulations;
- control of future financial expenses of the enterprise;
- refusal to carry out financial transactions, the level of risk of which is excessively high;
- refusal to continue business relations with partners who systematically violate contractual obligations;
- refusal to use high amounts of borrowed capital;
- development of a program to reduce costs and control accounts payable and receivable, etc.

The generalized scheme of support of financial stability of the enterprise is offered. The main approaches to risk planning based on a balanced scorecard and methods of influencing them are identified.

The form for registration of risks at the enterprise for the purpose of their control is offered. Mental traps were identified in the identification of financial risks of PJSC "Kalinov Machine-Building Plant" by the method of "top-down".

The study showed that for effective risk management in the enterprise it is advisable to go through a certain stage, namely: risk identification, risk assessment and minimization.

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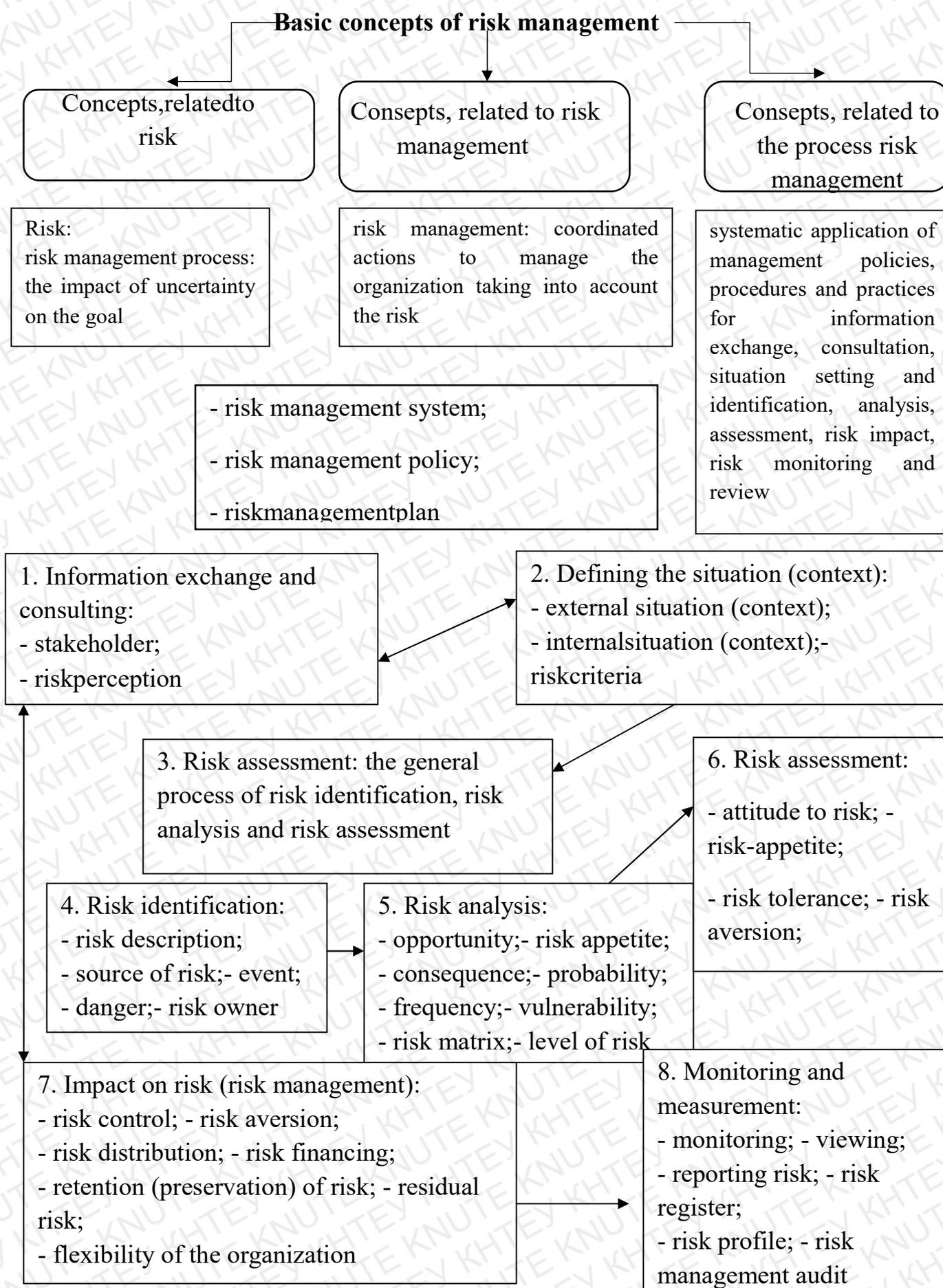
Generalized classification of risks

№ s / n	Classification feature	Type of risk	№ s / n	Classification feature	Type of risk
1	by sources of risk	economic technogenic natural household socio-political	7	by degree of risk saturation of management decisions	minimum small average increased maximum
2	by risk categories	individual social territorial collective	8	on the scale of the danger	absolutely acceptable acceptable maximum allowable inadmissible
3	by possible types of losses	material social ecological	9	by types of risk factors	external internal human factor
4	if possible	systematic(market) – not diversified unsystematic(specific)-diversified	10	by the magnitude of the risk	low medium high very high
5	by aspects of action	psychological social economic ecological legal political medico-biological	11	by area of origin	natural-ecological geopolitical socio-political demographic administrative macroeconomic entrepreneurial
6	by possible consequences	the risk as a result of which the company suffers economic losses risk, as a result of which the company does not receive the expected amount of income risk due to which both losses and additional income are possible	12	by economic characteristic	risk of reduced financial stability insolvency risk investment risk inflation risk interest rate risk currency risk deposit risk credit risk

Continuation of appendix A

13	by duration of exposure	constant temporary	23	by opportunity foresight	predicted unpredictable
14	by duration of manifestation	long-term (related with development) short-term (opportunistic)	24	by object of origin	risk of separate business operations risk of different types of economic activity risk of general economic activity
15	by the time of making management decisions related to risk	ahead timely belated	25	by types of validity	reasonable (rational) unreasonable (irrational) adventurous
16	depending on the profession	professional non-	26	at the place of manifestation	in the foreign market in the domestic market
17	depending on the nature and economic consequences of risky events	net risk speculative	27	depending on the type of operations, which are characterized by a certain type of risk	operating financial investment
18	by situational class	in conditions of uncertainty in conditions of conflict (competition) in conditions of vagueness (fuzzy)	28	by the degree of subjectivity and objectivity	risk with objective probability risk with subjective probability risk with objective-subjective probability
19	depending on the possibility of enterprise risk management	risks that can be managed risks that cannot be managed by the enterprise	29	depending on the nature and regularity of the risk	statistical non-statistical
20	depending on the scale of risk events	global local	30	according to people's perception	arbitrary forced
21	by expiration date	retrospective current	31	by level of occurrence	mega-risks macro risks
22	by the number of decision makers	risk individual group risk	32	under the possibility of insurance	uninsured risk uninsured risk
33	by the institution that generates them	- laws and orders of the government, local authorities; - inconsistency and inconsistency of state economic policy; - regulatory policy			-situation in local and global markets;

Source: compiled by the author according to the data [17, p.523]

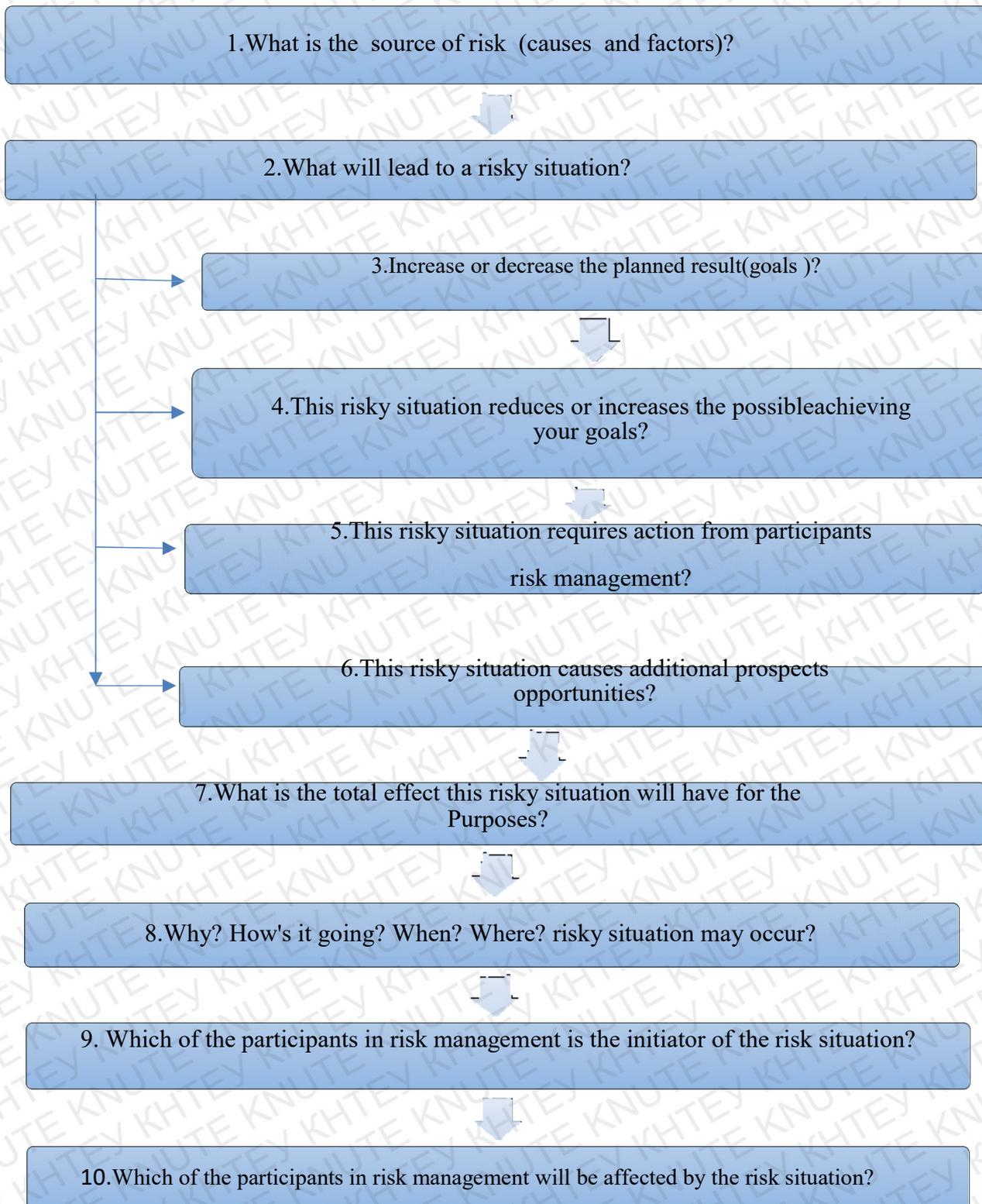


Characteristics of the risk management process in the most common international risk management standards

Sign	ISO 31000:2018	COSO ERM	AC/NZS 4360:2004	FARM	BS31100:2008
Developer/Publisher	International Organization for Standardization	Committee of Sponsorship Organization of Treadway	Joint Technical Committee OB-007 "Risk Management"	Federation of European Risk Management Associations	British Standards Institute
Number of stages (components) in the management process Risk	5	8	8	7	6
Contents of the risk management process	1. installation of the environment; 2. risk assessment (risk identification; analysis risk; risk assessment); 3. Influencing risk; 4. communication and consulting; 5. Monitoring	1. determination of the object of control; 2. identification of risks; 3. risk analysis; 4. quantification; 5. evaluation; 6. threat detection and opportunities; 7. decision-making, their processing risk and assessment Correlation risk and degree Influence portfolio; 8. Control	1. determination of the object of control; 2. identification of risks; 3. risk analysis; 4. quantification and continuous risk assessment; 5. threat detection and opportunities; 6. Communication risk; 7. acceptance solutions and processing risk; 8. Control	1. definition of the object of the management strategy; 2. risk assessment (analysis, identification of sources, description, quantitative assessment, assessment); 3. identification of threats and opportunities; 4. decision-making; 5. risk handling; 6. rating residual risk; 7. Control	1. Contents risk; 2. risk detection; 3. risk assessment; 4. risk reaction; 5. risk reporting; 6. Risk response.
Identification	Yes	Yes	Yes	Yes	No

Source: compiled by the author according to the data [26]

Basic risk identification algorithm



Source: compiled by the author according to the data [16]

Risk identification methods

Method	Scope
1. Brainstorming	Participants' opportunities to predict a situation where data is missing or new non-standard solutions are needed Problems.
2. Surveys and interviews Structured, or partially structured interviews	Identification of hazards the effectiveness of the means management, are used in the collection of input data to assess the risk by stakeholders.
3. Delphi method	1990 - 2004 - Did not enter risk management or all stages of the life cycle of the system, wherever agreed assessments of experts are required.
4. Checklists	Lists of hazards, risks or failures of management tools, which are usually developed on the basis of previously obtained experience, results of preliminary risk assessment or failure results, in the past.
5. Preliminary hazard analysis – PHA (Preliminary Hazard Analysis)	Identification of hazards, hazards and events that may disrupt or damage these activities, equipment or system.
6. Hazard and Operability Study	A method of identifying hazards and risks for people, equipment, the environment and/or achieving the goals of the organization. HAZOP is a qualitative method based on the use of control words that help to understand why design goals or operating conditions cannot be achieved at every stage of a project, process, procedure or System.
7. Hazard Analysis and Critical Control Points (HACCP)	Allows you to build a hazard identification structure and check management tools in all parts of the process, protect against dangers and ensure high reliability and safety of products. Minimization of risk by applying management tools in the production process, and not only when control of final products.
8. Structured analysis of scenarios by the method of "what if?" (SWIFT - Structured what-if technique)	A systematized scenario research method based on teamwork that uses a set of words or tooltip phrases to help team members identify and script dangerous situations during a meeting Development.

9. Root Cause Analysis (RCA - Root Cause Analysis) (RCFA - Root Cause Failure Analysis)	The RCA method is used to investigate losses due to different types of failures, while loss analysis is mainly used to investigate financial or economic losses from external factors. The RCA method aims to identify the primary reasons for failure without considering them external manifestations.
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Source: compiled by the author according to the data [28, p.37]

Підприємство	Приватне акціонерне товариство "Калинівський машинобудівний завод"	Дата(рік, місяць, число)	КОДИ
Територія		за ЄДРПОУ	2016 01 01 25494693
Організаційно- правова форма господарювання		за КОАТУУ	0521610100
Вид економічної діяльності		за КОПФГ	230
Середня кількість працівників	347	за КВЕД	28.93

Одиниця виміру: тис.грн. без десяткового знака

Баланс

(Звіт про фінансовий стан)

на 31.12.2015 р.

Актив	Код рядка	На початок звітнього періоду	На кінець звітнього періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Необоротні активи				
Нематеріальні активи:	1000	47	29	0
первісна вартість	1001	353	353	0
накопичена амортизація	1002	306	324	0
Незавершені капітальні інвестиції	1005	22	100	0
Основні засоби:	1010	8579	8175	0
первісна вартість	1011	23777	24787	0
знос	1012	15198	16612	0
Інвестиційна нерухомість:	1015	0	0	0
первісна вартість	1016	0	0	0
знос	1017	0	0	0
Довгострокові біологічні активи:	1020	0	0	0
первісна вартість	1021	0	0	0
накопичена амортизація	1022	0	0	0
Довгострокові фінансові інвестиції: які обліковуються за методом участі в капіталі інших підприємств	1030	239	239	0
інші фінансові інвестиції	1035	22200	22200	0
Довгострокова дебіторська заборгованість	1040	0	0	0
Відстрочені податкові активи	1045	0	0	0
Гудвіл	1050	0	0	0
Відстрочені аквізиційні витрати	1060	0	0	0

Залишок коптів у централізованих страхових резервних фондах	1065	0	0	0
Інші необоротні активи	1090	0	0	0
Усього за розділом I	1095	31087	30743	0
II. Оборотні активи				
Запаси	1100	11596	18728	0
Виробничі запаси	1101	4200	7753	0
Незавершене виробництво	1102	4049	4535	0
Готова продукція	1103	3336	6429	0
Товари	1104	11	11	0
Поточні біологічні активи	1110	0	0	0
Депозити перестраховання	1115	0	0	0
Векселі одержані	1120	0	0	0
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	4838	3665	0
Дебіторська заборгованість за розрахунками: за виданими авансами	1130	1787	5159	0
з бюджетом	1135	5444	5474	0
у тому числі з податку на прибуток	1136	822	842	0
з нарахованих доходів	1140	0	0	0
із внутрішніх розрахунків	1145	0	0	0
Інша поточна дебіторська заборгованість	1155	191	228	0
Поточні фінансові інвестиції	1160	0	0	0
Гроші та їх еквіваленти	1165	909	17723	0
Готівка	1166	0	4	0
Рахунки в банках	1167	909	17719	0
Витрати майбутніх періодів	1170	28	13	0
Частка перестраховика у страхових резервах	1180	0	0	0
у тому числі в:				
резервах довгострокових зобов'язань	1181	0	0	0
резервах збитків або резервах належних виплат	1182	0	0	0
резервах незароблених премій	1183	0	0	0
інших страхових резервах	1184	0	0	0
Інші оборотні активи	1190	1239	2105	0
Усього за розділом II	1195	26032	53095	0
III. Необоротні активи, утримувані для продажу, та групи вибуття				
Баланс	1300	57119	83838	0

Пасив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
I. Власний капітал				
Зареєстрований (пайовий) капітал	1400	37630	37630	0
Внески до незареєстрованого статутного капіталу	1401	0	0	0
Капітал у дооцінках	1405	0	0	0
Додатковий капітал	1410	0	0	0
Емісійний дохід	1411	0	0	0
Накопичені курсові різниці	1412	0	0	0
Резервний капітал	1415	663	663	0
Нерозподілений прибуток (непокритий збиток)	1420	5559	17929	0
Неоплачений капітал	1425	(0)	(0)	(0)
Видучений капітал	1430	(0)	(0)	(0)
Інші резерви	1435	0	0	0
Усього за розділом I	1495	43852	56222	0
II. Довгострокові зобов'язання і забезпечення				
Відстрочені податкові зобов'язання	1500	0	0	0
Пенсійні зобов'язання	1505	0	0	0
Довгострокові кредити банків	1510	2152	0	0
Інші довгострокові зобов'язання	1515	0	0	0
Довгострокові забезпечення	1520	0	0	0
Довгострокові забезпечення витрат персоналу	1521	0	0	0
Цільове фінансування	1525	0	0	0
Благодійна допомога	1526	0	0	0
Страхові резерви, у тому числі:	1530	0	0	0
резерв довгострокових зобов'язань; (на початок звітного періоду)	1531	0	0	0
резерв збитків або резерв належних виплат; (на початок звітного періоду)	1532	0	0	0
резерв незароблених премій; (на початок звітного періоду)	1533	0	0	0
інші страхові резерви; (на початок звітного періоду)	1534	0	0	0
Інвестиційні контракти;	1535	0	0	0
Привзовий фонд	1540	0	0	0
Резерв на виплату джек-поту	1545	0	0	0
Усього за розділом II	1595	2152	0	0

III. Поточні зобов'язання і забезпечення				
Короткострокові кредити банків	1600	0	0	0
Векселі видані	1605	0	0	0
Поточна кредиторська заборгованість: за довгостроковими зобов'язаннями	1610	0	0	0
за товари, роботи, послуги	1615	2831	8464	0
за розрахунками з бюджетом	1620	87	3363	0
за у тому числі з податку на прибуток	1621	0	3194	0
за розрахунками зі страхування	1625	252	376	0
за розрахунками з оплати праці	1630	531	739	0
за одержаними авансами	1635	6998	13973	0
за розрахунками з учасниками	1640	0	0	0
із внутрішніх розрахунків	1645	0	0	0
за страховою діяльністю	1650	0	0	0
Поточні забезпечення	1660	0	0	0
Доходи майбутніх періодів	1665	0	0	0
Відстрочені комісійні доходи від перестраховиків	1670	0	0	0
Інші поточні зобов'язання	1690	416	701	0
Усього за розділом III	1695	11115	27616	0
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття	1700	0	0	0
V. Чиста вартість активів недержавного пенсійного фонду	1800	0	0	0
Баланс	1900	57119	83838	0

**Баланс (Звіт про фінансовий стан)
на 31.12.2016 р.**

Актив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Необоротні активи				
Нематеріальні активи:	1000	29	11	0
первісна вартість	1001	353	353	0
накопичена амортизація	1002	324	342	0
Незавершені капітальні інвестиції	1005	100	22	0
Основні засоби:	1010	8175	10657	0
первісна вартість	1011	24787	28712	0
знос	1012	16612	18055	0
Інвестиційна нерухомість:	1015	0	0	0
первісна вартість	1016	0	0	0
знос	1017	0	0	0
Довгострокові біологічні активи:	1020	0	0	0

первісна вартість	1021	0	0	0
накопичена амортизація	1022	0	0	0
Довгострокові фінансові інвестиції: які обліковуються за методом участі в капіталі інших підприємств	1030	239	239	0
інші фінансові інвестиції	1035	22200	22200	0
Довгострокова дебіторська заборгованість	1040	0	0	0
Відстрочені податкові активи	1045	0	0	0
Гудвіл	1050	0	0	0
Відстрочені аквізиційні витрати	1060	0	0	0
Залишок коштів у централізованих страхових резервних фондах	1065	0	0	0
Інші необоротні активи	1090	0	0	0
Усього за розділом I	1095	30743	33129	0
II. Оборотні активи				
Запаси	1100	18728	38616	0
Виробничі запаси	1101	7753	11955	0
Незавершене виробництво	1102	4535	15554	0
Готова продукція	1103	6429	11096	0
Товари	1104	11	11	0
Поточні біологічні активи	1110	0	0	0
Депозити перестраховування	1115	0	0	0
Векселі одержані	1120	0	0	0
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	3665	11577	0
Дебіторська заборгованість за розрахунками: за виданими авансами	1130	5159	9816	0
з бюджетом	1135	1020	1066	0
у тому числі з податку на прибуток	1136	20	265	0
з нарахованих доходів	1140	0	0	0
із внутрішніх розрахунків	1145	0	0	0
Інша поточна дебіторська заборгованість	1155	228	303	0
Поточні фінансові інвестиції	1160	0	0	0
Гроші та їх еквіваленти	1165	17723	5127	0
Готівка	1166	4	1	0
Рахунки в банках	1167	17719	5126	0
Витрати майбутніх періодів	1170	13	28	0
Частка перестраховика у страхових резервах	1180	0	0	0
у тому числі в: резервах довгострокових зобов'язань	1181	0	0	0
резервах збитків або резервах належних виплат	1182	0	0	0
резервах незароблених премій	1183	0	0	0
інших страхових резервах	1184	0	0	0

Інші оборотні активи	1190	2105	4640	0
Усього за розділом II	1195	48641	71173	0
III. Необоротні активи, утримувані для продажу, та групи вибуття	1200	0	0	0
Баланс	1300	79384	104302	0

Пасив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
I. Власний капітал				
Зареєстрований (пайовий) капітал	1400	37630	37630	0
Внески до незареєстрованого статутного капіталу	1401	0	0	0
Капітал у дооцінках	1405	0	0	0
Додатковий капітал	1410	0	0	0
Емісійний дохід	1411	0	0	0
Накопичені курсові різниці	1412	0	0	0
Резервний капітал	1415	663	663	0
Нерозподілений прибуток (непокритий збиток)	1420	13475	4185	0
Неоплачений капітал	1425	(0)	(0)	(0)
Вилучений капітал	1430	(0)	(0)	(0)
Інші резерви	1435	0	0	0
Усього за розділом I	1495	51768	42478	0
II. Довгострокові зобов'язання і забезпечення				
Відстрочені податкові зобов'язання	1500	0	0	0
Пенсійні зобов'язання	1505	0	0	0
Довгострокові кредити банків	1510	0	0	0
Інші довгострокові зобов'язання	1515	0	0	0
Довгострокові забезпечення	1520	0	0	0
Довгострокові забезпечення витрат персоналу	1521	0	0	0
Цільове фінансування	1525	0	0	0
Благодійна допомога	1526	0	0	0
Страхові резерви, у тому числі:	1530	0	0	0
резерв довгострокових зобов'язань; (на початок звітного періоду)	1531	0	0	0
резерв збитків або резерв належних виплат; (на початок звітного періоду)	1532	0	0	0
резерв незароблених премій; (на початок звітного періоду)	1533	0	0	0
інші страхові резерви; (на початок звітного періоду)	1534	0	0	0
Інвестиційні контракти;	1535	0	0	0
Призовий фонд	1540	0	0	0

Резерв на виплату джек-поту	1545	0	0	0
Усього за розділом II	1595	0	0	0
III. Поточні зобов'язання і забезпечення				
Короткострокові кредити банків	1600	0	0	0
Векселі видані	1605	0	0	0
Поточна кредиторська заборгованість: за довгостроковими зобов'язаннями	1610	0	0	0
за товари, роботи, послуги	1615	8464	15836	0
за розрахунками з бюджетом	1620	3363	318	0
за у тому числі з податку на прибуток	1621	3194	0	0
за розрахунками зі страхування	1625	376	325	0
за розрахунками з оплати праці	1630	739	1236	0
за одержаними авансами	1635	13973	34852	0
за розрахунками з учасниками	1640	0	0	0
із внутрішніх розрахунків	1645	0	0	0
за страховою діяльністю	1650	0	0	0
Поточні забезпечення	1660	0	0	0
Доходи майбутніх періодів	1665	0	0	0
Відстрочені комісійні доходи від перестраховиків	1670	0	0	0
Інші поточні зобов'язання	1690	701	9257	0
Усього за розділом III	1695	27616	61824	0
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття	1700	0	0	0
V. Чиста вартість активів недержавного пенсійного фонду	1800	0	0	0
Баланс	1900	79384	104302	0

Баланс (Звіт про фінансовий стан) на 31.12.2017 р.

Актив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Необоротні активи				
Нематеріальні активи:	1000	11	7	0
первісна вартість	1001	353	353	0
накопичена амортизація	1002	342	346	0
Незавершені капітальні інвестиції	1005	22	451	0
Основні засоби:	1010	10657	9958	0
первісна вартість	1011	28712	29467	0
знос	1012	18055	19509	0
Інвестиційна нерухомість:	1015	0	0	0
первісна вартість	1016	0	0	0
знос	1017	0	0	0
Довгострокові біологічні активи:	1020	0	0	0
первісна вартість	1021	0	0	0
накопичена амортизація	1022	0	0	0
Довгострокові фінансові інвестиції: які обліковуються за методом участі в капіталі інших підприємств	1030	239	239	0
інші фінансові інвестиції	1035	22200	0	0
Довгострокова дебіторська заборгованість	1040	0	0	0
Відстрочені податкові активи	1045	0	0	0
Гудвіл	1050	0	0	0
Відстрочені аквізиційні витрати	1060	0	0	0
Залишок коштів у централізованих страхових резервних фондах	1065	0	0	0
Інші необоротні активи	1090	0	0	0
Усього за розділом I	1095	33129	10655	0
II. Оборотні активи				
Запаси	1100	38616	49645	0
Виробничі запаси	1101	11955	21352	0
Незавершене виробництво	1102	15554	18567	0
Готова продукція	1103	11096	9715	0
Товари	1104	11	11	0
Поточні біологічні активи	1110	0	0	0
Депозити перестрахування	1115	0	0	0
Векселі одержані	1120	0	0	0
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	11577	7688	0
Дебіторська заборгованість за розрахунками: за виданими авансами	1130	9816	19627	0
з бюджетом	1135	1066	1609	0
у тому числі з податку на прибуток	1136	265	15	0
з нарахованих доходів	1140	0	0	0
із внутрішніх розрахунків	1145	0	0	0
Інша поточна дебіторська заборгованість	1155	303	290	0

Поточні фінансові інвестиції	1160	0	0	0
Гроші та їх еквіваленти	1165	5127	24625	0
Готівка	1166	1	1	0
Рахунки в банках	1167	5126	24624	0
Витрати майбутніх періодів	1170	28	18	0
Частка перестраховика у страхових резервах	1180	0	0	0
у тому числі в:				
резервах довгострокових зобов'язань	1181	0	0	0
резервах збитків або резервах належних виплат	1182	0	0	0
резервах незароблених премій	1183	0	0	0
інших страхових резервах	1184	0	0	0
Інші оборотні активи	1190	4640	10137	0
Усього за розділом II	1195	71173	113639	0
резерв незароблених премій: (на початок звітного періоду)	1533	0	0	0
інші страхові резерви: (на початок звітного періоду)	1534	0	0	0
Інвестиційні контракти:	1535	0	0	0
Призовий фонд	1540	0	0	0
Шасив	рядка	звітного періоду	звітного періоду	стандарту фінансової звітності
I. Власний капітал				
Зареєстрований (пабовий) капітал	1400	37630	37630	0
Внески до незареєстрованого статутного капіталу	1401	0	0	0
Капітал у дооцінках	1405	0	0	0
Додатковий капітал	1410	0	0	0
Емісійний дохід	1411	0	0	0
Накопичені курсові різниці	1412	0	0	0
Резервний капітал	1415	663	663	0
Нерозподілений прибуток (непокритий збиток)	1420	4185	-3413	0
Неоплачений капітал	1425	(0)	(0)	(0)
Вилучений капітал	1430	(0)	(0)	(0)
Інші резерви	1435	0	0	0
Усього за розділом I	1495	42478	34880	0
II. Довгострокові зобов'язання і забезпечення				
Відстрочені податкові зобов'язання	1500	0	0	0
Пенсійні зобов'язання	1505	0	0	0
Довгострокові кредити банків	1510	0	0	0
Інші довгострокові зобов'язання	1515	0	0	0
Довгострокові забезпечення	1520	0	0	0
Довгострокові забезпечення витрат персоналу	1521	0	0	0
Цільове фінансування	1525	0	0	0
Благодійна допомога	1526	0	0	0
Страхові резерви, у тому числі:	1530	0	0	0
резерв довгострокових зобов'язань: (на початок звітного періоду)	1531	0	0	0
резерв збитків або резерв належних виплат; (на початок звітного періоду)	1532	0	0	0

Резерв на виплату джек-поту	1545	0	0	0
Усього за розділом II	1595	0	0	0
III. Поточні зобов'язання і забезпечення				
Короткострокові кредити банків	1600	0	0	0
Векселі видані	1605	0	0	0
Поточна кредиторська заборгованість: за довгостроковими зобов'язаннями	1610	0	0	0
за товари, роботи, послуги	1615	15836	16344	0
за розрахунками з бюджетом	1620	318	311	0
за у тому числі з податку на прибуток	1621	0	0	0
за розрахунками зі страхування	1625	325	249	0
за розрахунками з оплати праці	1630	1236	1021	0
за одержаними авансами	1635	34852	65744	0
за розрахунками з учасниками	1640	0	0	0
із внутрішніх розрахунків	1645	0	0	0
за страховою діяльністю	1650	0	0	0
Поточні забезпечення	1660	0	0	0
Доходи майбутніх періодів	1665	0	0	0
Відстрочені комісійні доходи від перестраховиків	1670	0	0	0
Інші поточні зобов'язання	1690	9257	5745	0
Усього за розділом III	1695	61824	89414	0
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття	1700	0	0	0
V. Чиста вартість активів недержавного пенсійного фонду	1800	0	0	0
Баланс	1900	104302	124294	0

Баланс (Звіт про фінансовий стан)

на 31.12.2018 р.

Актив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Необоротні активи				
Нематеріальні активи	1000	7	1837	
первісна вартість	1001	353	2448	0
накопичена амортизація	1002	(346)	(611)	0
Незавершені капітальні інвестиції	1005	451	1679	0
Основні засоби	1010	9958	19066	
первісна вартість	1011	29467	40954	0
знос	1012	(19509)	(21888)	0
Інвестиційна нерухомість	1015			
Первісна вартість інвестиційної нерухомості	1016	0	0	0
Знос інвестиційної нерухомості	1017	0	0	0
Довгострокові біологічні активи	1020			
Первісна вартість довгострокових біологічних активів	1021	0	0	0
Первісна вартість довгострокових біологічних активів	1022	0	0	0
Довгострокові фінансові інвестиції:				
які обліковуються за методом участі в капіталі інших підприємств	1030	239	239	0
інші фінансові інвестиції	1035	0	0	0
Довгострокова дебіторська заборгованість	1040	0	0	0
Відстрочені податкові активи	1045	0	0	0
Гудвіл	1050	0	0	0
Відстрочені аквізиційні витрати	1060	0	0	0
Залишок коштів у централізованих страхових резервних фондах	1065	0	0	0
Інші необоротні активи	1090	0	0	0
Усього за розділом I	1095	10655	22821	
II. Оборотні активи				
Запаси	1100	49645	108500	0
- виробничі запаси	1101	21352	31478	0
- незавершене виробництво	1102	18567	58704	0
- готова продукція	1103	9715	18307	0
- товари	1104	11	11	0
Поточні біологічні активи	1110	0	0	0
Депозити перестраховання	1115	0	0	0
Векселі одержані	1120	0	0	0
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	7688	12687	0
Дебіторська заборгованість за розрахунками:				
за виданими авансами	1130	19627	31068	0
з бюджетом	1135	1609	6646	0
- у тому числі з податку на прибуток	1136	15	1147	0
Дебіторська заборгованість за розрахунками з нарахованих доходів	1140	0	0	0
Дебіторська заборгованість за розрахунками із внутрішніх розрахунків	1145	0	0	0
Інша поточна дебіторська заборгованість	1155	290	524	0
Поточні фінансові інвестиції	1160	0	0	0
Гроші та їх еквіваленти	1165	24625	27431	0
- готівка	1166	1	14	0
- рахунки в банках	1167	24624	27417	0
Витрати майбутніх періодів	1170	18	15	0
Частка перестраховика у страхових резервах	1180	0	0	0
- в резервах довгострокових зобов'язань	1181	0	0	0
- в резервах збитків або резервах належних виплат	1182	0	0	0
- в резервах незароблених премій	1183	0	0	0
- в інших страхових резервах	1184	0	0	0
Інші оборотні активи	1190	10137	21419	0
Усього за розділом II	1195	113639	208290	
III. Необоротні активи, утримувані для продажу, та групи вибуття	1200	0	0	0
Баланс	1300	124294	231111	

Пасив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Власний капітал				
Зареєстрований (пайовий) капітал	1400	37630	37630	0
Капітал у дооцінках	1405	0	0	0
Додатковий капітал	1410	0	0	0
- емісійний дохід	1411	0	0	0
- накопичені курсові різниці	1412	0	0	0
Резервний капітал	1415	663	663	0
Нерозподілений прибуток (непокритий збиток)	1420	(3413)	5537	0
Неоплачений капітал	1425	0	0	0
Вилучений капітал	1430	0	0	0
Інші резерви	1435	0	0	0
Усього за розділом I	1495	34880	43830	
II. Довгострокові зобов'язання і забезпечення				
Відстрочені податкові зобов'язання	1500	0	0	0
Пенсійні зобов'язання	1505	0	0	0
Довгострокові кредити банків	1510	0	0	0
Інші довгострокові зобов'язання	1515	0	0	0
Довгострокові забезпечення	1520	0	0	0
- довгострокові забезпечення витрат персоналу	1521	0	0	0
Цільове фінансування	1525	0	0	0
- благодійна допомога	1526	0	0	0
Страхові резерви	1530	0	0	0
- резерв довгострокових зобов'язань	1531	0	0	0
- резерв збитків або резерв належних виплат	1532	0	0	0
- резерв незароблених премій	1533	0	0	0
- інші страхові резерви	1534	0	0	0
Інвестиційні контракти	1535	0	0	0
Призовий фонд	1540	0	0	0
Резерв на виплату джек-поту	1545	0	0	0
Усього за розділом II	1595			
III. Поточні зобов'язання і забезпечення				
Короткострокові кредити банків	1600	0	0	0
Векселі видані	1605	0	0	0
Поточна кредиторська заборгованість за:				
довгостроковими зобов'язаннями	1610	0	0	0
товари, роботи, послуги	1615	16344	25482	0
розрахунками з бюджетом	1620	311	489	0
- у тому числі з податку на прибуток	1621	0	0	0
розрахунками зі страхування	1625	249	414	0
розрахунками з оплати праці	1630	1021	1613	0
Поточна кредиторська заборгованість за одержаними авансами	1635	65744	156137	0
Поточна кредиторська заборгованість за розрахунками з учасниками	1640	0	0	0
Поточна кредиторська заборгованість із внутрішніх розрахунків	1645	0	0	0
Поточна кредиторська заборгованість за страховою діяльністю	1650	0	0	0
Поточні забезпечення	1660	0	0	0
Доходи майбутніх періодів	1665	0	0	0
Відстрочені комісійні доходи від перестраховиків	1670	0	0	0
Інші поточні зобов'язання	1690	5745	3146	0
Усього за розділом III	1695	89414	187281	
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття				
V. Чиста вартість активів недержавного пенсійного фонду	1800	0	0	0
Баланс	1900	124294	231111	

Баланс (Звіт про фінансовий стан) на 31.12.2019 р.

Актив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Необоротні активи				
Нематеріальні активи				
первісна вартість	1000	1837	786	
первісна вартість	1001	2448	2448	0
накопичена амортизація	1002	(611)	(1662)	0
Незавершені капітальні інвестиції	1005	1679	5463	0
Основні засоби	1010	19066	18313	
первісна вартість	1011	40954	44584	0
знос	1012	(21888)	(26271)	0
Інвестиційна нерухомість	1015			
Первісна вартість інвестиційної нерухомості	1016	0	0	0
Знос інвестиційної нерухомості	1017	0	0	0
Довгострокові біологічні активи	1020			
Первісна вартість довгострокових біологічних активів	1021	0	0	0
Первісна вартість довгострокових біологічних активів	1022	0	0	0
Довгострокові фінансові інвестиції:				
які обліковуються за методом участі в капіталі інших підприємств	1030	239	239	0
інші фінансові інвестиції	1035	0	0	0
Довгострокова дебіторська заборгованість	1040	0	0	0
Відстрочені податкові активи	1045	0	0	0
Гудвіл	1050	0	0	0
Відстрочені аквізиційні витрати	1060	0	0	0
Залишок коштів у централізованих страхових резервних фондах	1065	0	0	0
Інші необоротні активи	1090	0	0	0
Усього за розділом I	1095	22821	24801	
II. Оборотні активи				
Запаси	1100	108500	84156	0
- виробничі запаси	1101	31478	16588	0
- незавершене виробництво	1102	58704	47075	0
- готова продукція	1103	18307	20482	0
- товари	1104	11	11	0
Поточні біологічні активи	1110	0	0	0
Депозити перестрахування	1115	0	0	0
Векселі одержані	1120	0	0	0
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	12687	16088	0
Дебіторська заборгованість за розрахунками:				
за виданими авансами	1130	31068	12424	0
з бюджетом	1135	6646	6425	0
- у тому числі з податку на прибуток	1136	1147	2	0
Дебіторська заборгованість за розрахунками з нарахованих доходів	1140	0	0	0
Дебіторська заборгованість за розрахунками із внутрішніх розрахунків	1145	0	0	0
Інша поточна дебіторська заборгованість	1155	524	683	0
Поточні фінансові інвестиції	1160	0	0	0

Гроші та їх еквіваленти	1165	27431	9637	0
- готівка	1166	14	14	0
- рахунки в банках	1167	27417	9623	0
Витрати майбутніх періодів	1170	15	36	0
Частка перестраховика у страхових резервах	1180	0	0	0
- в резервах довгострокових зобов'язань	1181	0	0	0
- в резервах збитків або резервах належних виплат	1182	0	0	0
- в резервах незароблених премій	1183	0	0	0
- в інших страхових резервах	1184	0	0	0
Інші оборотні активи	1190	21419	6632	0
Усього за розділом II	1195	208290	136081	
III. Необоротні активи, утримувані для продажу, та групи вибуття	1200	0	0	0
Баланс	1300	231111	160882	
Пасив	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату переходу на міжнародні стандарти фінансової звітності
1	2	3	4	5
I. Власний капітал				
Зареєстрований (пайовий) капітал	1400	37630	37630	0
Капітал у дооцінках	1405	0	0	0
Додатковий капітал	1410	0	0	0
- емісійний дохід	1411	0	0	0
- накопичені курсові різниці	1412	0	0	0
Резервний капітал	1415	663	663	0
Нерозподілений прибуток (непокритий збиток)	1420	5537	15811	0
Неоплачений капітал	1425	0	0	0
Вилучений капітал	1430	0	0	0
Інші резерви	1435	0	0	0
Усього за розділом I	1495	43830	54104	
II. Довгострокові зобов'язання і забезпечення				
Відстрочені податкові зобов'язання	1500	0	0	0
Пенсійні зобов'язання	1505	0	0	0
Довгострокові кредити банків	1510	0	0	0
Інші довгострокові зобов'язання	1515	0	0	0
Довгострокові забезпечення	1520	0	0	0
- довгострокові забезпечення витрат персоналу	1521	0	0	0
Цільове фінансування	1525	0	0	0
- благодійна допомога	1526	0	0	0
Страхові резерви	1530	0	0	0
- резерв довгострокових зобов'язань	1531	0	0	0
- резерв збитків або резерв належних виплат	1532	0	0	0
- резерв незароблених премій	1533	0	0	0
- інші страхові резерви	1534	0	0	0
Інвестиційні контракти	1535	0	0	0
Призовий фонд	1540	0	0	0
Резерв на виплату джек-поту	1545	0	0	0
Усього за розділом II	1595			
III. Поточні зобов'язання і забезпечення				
Короткострокові кредити банків	1600	0	10	0
Векселі видані	1605	0	0	0
Поточна кредиторська заборгованість за:				
довгостроковими зобов'язаннями	1610	0	0	0
товари, роботи, послуги	1615	25482	17804	0
розрахунками з бюджетом	1620	489	171	0
- у тому числі з податку на прибуток	1621	0	0	0

розрахунками зі страхування	1625	414	560	0
розрахунками з оплати праці	1630	1613	2161	0
Поточна кредиторська заборгованість за одержаними авансами	1635	156137	83441	0
Поточна кредиторська заборгованість за розрахунками з учасниками	1640	0	0	0
Поточна кредиторська заборгованість із внутрішніх розрахунків	1645	0	0	0
Поточна кредиторська заборгованість за страховою діяльністю	1650	0	0	0
Поточні забезпечення	1660	0	0	0
Доходи майбутніх періодів	1665	0	0	0
Відстрочені комісійні доходи від перестраховиків	1670	0	0	0
Інші поточні зобов'язання	1690	3148	2631	0
Усього за розділом III	1695	187281	106778	0
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття	1700	0	0	0
V. Чиста вартість активів недержавного пенсійного фонду	1800	0	0	0
Баланс	1900	231111	160882	0

Баланс (Звіт про фінансовий стан)

на 31.12.2020р.

А к т и в	Код рядка	Напочаток звітної пе ріоду	Накінець звітної пе ріоду	На дату пере ходу на міжнарод ні стандар ти фінансов ої звітності
1	2	3	4	5
I. Необоротні активи				
Нематеріальні активи:	1000	786		
первісна вартість	1001	2448	2448	
Накопичена амортизація	1002	1662	2448	
Незавершені капітальні інвестиції	1005	5463	8160	
Основні засоби:	1010	18313	13928	
первісна вартість	1011	44584	44899	
знос	1012	26271	30971	
Інвестиційна нерухомість:	1015			
первісна вартість	1016			
знос	1017			
Довгострокові біологічні активи:	1020			
Первісна вартість	1021			
Накопичена амортизація	1022			
Довгострокові фінансові інвестиції: Які обліковуються за методом участі в капіталі інших підприємств	1030	239	239	
Інші фінансові інвестиції	1035			
Довгострокова дебіторська заборгованість	1040			
Відстрочені податкові активи	1045			
Гудвіл	1050			
Відстрочені аквізиційні витрати	1060			
Залишок коштів у централізованих страхових резервних фондах	1065			
Інші необоротні активи	1090			
Усього за розділом I	1095	24801	22327	
II. Оборотні активи				
Запаси	1100	84156	93122	
Виробничі запаси	1101	16588	13852	
Незавершене виробництво	1102	47075	60110	
Готова продукція	1103	20482	19149	
Товари	1104	11	11	

Поточні біологічні активи	1110			
Депозити перестраховання	1115			
Векселі одержані	1120			
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	16088	9280	
Дебіторська заборгованість зарозрахунками: завиданими авансами	1130	12424	11794	
З бюджетом	1135	6425	4481	
У тому числі зподатку на прибуток	1136	2	313	
Знахованих доходів	1140			
Із внутрішніх розрахунків	1145			
Інша поточна дебіторська заборгованість	1155	683	582	
Поточні фінансові інвестиції	1160			
Гроші та їх еквіваленти	1165	9637	15938	
Готівка	1166	14	8	
Рахунки в банках	1167	9623	15930	
Витрати майбутніх періодів	1170	36	139	
Частка перестраховика у страхових резервах	1180			
У тому числі:				
Резервах довгострокових зобов'язань	1181			
Резервах збитків або резервах належних виплат	1182			
Резервах незароблених премій	1183			
Інших страхових резервах	1184			
Інші оборотні активи	1190	6632	10951	
Усього за розділом II	1195	136081	146287	
III. Необоротні активи, утримувані для продажу, та групи вибуття	1200			
Баланс	1300	160882	146287	
П а с и в	Код рядка	На початок звітного періоду	На кінець звітного періоду	На дату пере ходу міжнародних стандартів фінансової звітності
I. Власний капітал				
Зареєстрований (пайовий) капітал	1400	37630	37630	
Внески до незареєстрованого статутного капіталу	1401			
Капітал у дооцінках	1405			
Додатковий капітал	1410			
Емісійний дохід	1411			
Накопичені курсові різниці	1412			
Резервний капітал	1415	663	663	
Нерозподілений прибуток (непокритий збиток)	1420	15811	16552	
Неоплачений капітал	1425	0	0	0
Вилучений капітал	1430	0	0	0
Інші резерви	1435			
Усього за розділом I	1495	54104	54845	
II. Довгострокові зобов'язання із забезпечення				
Відстрочені податкові зобов'язання	1500			
Пенсійні зобов'язання	1505			
Довгострокові кредити банків	1510			
Інші довгострокові зобов'язання	1515			
Довгострокові забезпечення	1520			
Довгострокові забезпечення витрат персоналу	1521			
Цільове фінансування	1525			

Благодій надопомога	1526		
Страхові резерви, у тому числі:	1530		
Резерв довгострокових зобов'язань; (на початок звітнього періоду)	1531		
Резерв взбитківа борезервналежних виплат; (напочаток звітнього періоду)	1532		
Резерв незароблених премій; (напочаток звітнього періоду)	1533		
Інші страхові резерви; (напочаток звітнього періоду)	1534		
Інвестиційні контракти;	1535		
Призовий фонд	1540		
Резерв внавіплату джек-поту	1545		
Усього за розділом II	1595		
III. Поточні зобов'язання із забезпечення			
Короткострокові кредити банків	1600	10	
Векселівидані	1605		
Поточна кредиторська заборгованість: за довгостроковими зобов'язаннями	1610		
За товари, роботи, послуги	1615	17804	17495
За розрахунками з бюджетом	1620	171	394
За у тому числі з податку на прибуток	1621		
За розрахунками з оплати праці	1630	2161	1298
За одержаними авансами	1635	83441	91834
За розрахунками з учасниками	1640		
Із внутрішніх розрахунків	1645		
За страховою діяльністю	1650		
Поточні забезпечення	1660		
Доходи майбутніх періодів	1665		
Відстрочені комісійні доходи від перестраховиків	1670		
Інші поточні зобов'язання	1690	2631	2437
Усього зарозділом III	1695	106778	113769
IV. Зобов'язання, пов'язані знеоборотними активами, утримуваними для продажу, та групами вибуття	1700		
V. Чиста вартість активів недержавного пенсійного фонду	1800		
Баланс	1900	160882	168614

Source: compiled by the author according to the company

Determination of financial risks that may arise in PJSC "Kalinov Machine-Building Plant"

Financial risk groups	Characteristic
1. External financial risks	External financial risks are the same for all economic entities in a market economy with a developed regulatory framework. Exceptions are monopoly companies and large organizations that have the resources and potential to lobby for their corporate interests.
1.1. inflationary	Inflation risks are associated with the depreciation of the national currency, which leads to negative internal (lower asset value, reduced income and profits, increased capital turnover, etc.) and external (reduced consumer purchasing power, increased competition, bankruptcy of business partners, etc.) effects. Inflation risks are especially dangerous for importers of products, or companies that buy imported raw materials and components for production. At the same time, inflation risk can have positive effects on exporters.
1.2. deflationary	Deflationary risks, which are manifested in the appreciation of the national currency, are opposite in direction and consequences. The existence of significant deflationary risks leads to lower incomes of exporters and additional positive effects in the activities of importers and companies that buy imported resources.
1.3. currency	Currency financial risks are similar in nature to inflation and deflationary risks, as they arise due to fluctuations in foreign exchange rates and directly affect the activities of foreign economic entities.
1.4. deposit	Deposit risks are the probability of non-repayment of deposits, non-repayment of certificates of deposit, changes in the terms of the deposit agreement or the rules for providing such services by banks. An example of the occurrence of deposit risks is the ban of the National Bank of Ukraine in September-November 2008 on early termination of the deposit agreement by the client.
1.5. tax	Tax risks are associated with improper administration and collection of taxes and fees by public authorities. One of the main types of tax risks is the risk of non-refund of VAT for exporters of goods and services. The occurrence of this type of risk reduces the financial stability and liquidity of the enterprise and leads to the formation of a number of other financial risks, usually with negative effects.

Continuation of appendix G

2. Internal financial risks	These risks and the consequences of their occurrence reflect, first of all, the effectiveness of the enterprise management system. Internal risks arise as a result of actions or inaction of the enterprise, and therefore are subject to monitoring, control and optimization.
2.1. Investment	Investment risks are associated with fluctuations in the income from investment activities of the enterprise. By investing various tangible and intangible assets in investment projects, the company hopes to obtain some income or other positive socio-economic effect.
briefcases	Portfolio risk is integral, which reflects the set of financial risks of all financial and tangible assets that are part of the investment portfolio. Accordingly, it is quite difficult to manage this risk, because to optimize it it is advisable to use a set of agreed methods of risk management.
interest-bearing	Interest rate risk arises due to changes in interest rates on resources, capital and other factors of production. This risk can be considered an external risk, but for many companies it is internal (banks, credit unions, leasing companies and companies that provide commodity loans).
credit	The impact of credit risks on the activities of domestic enterprises is not as significant as in the financial and economic system of developed countries. As the domestic stock market is underdeveloped, bank lending is much lower than in developed countries, commodity loans to suppliers are also declining, as evidenced by statistics on accounts payable and receivable.
dividend	Arise in the process of forming dividend policy.
2.2. Business processes (operational)	Risks of business processes are distinguished by traditional areas of financial analysis of the enterprise: liquidity, turnover, profitability and financial stability. Liquidity risks depend on the assets owned by the company.
liquidity	The higher the liquidity value of the asset, the lower the level of liquidity risk, and conversely, with decreasing liquidity, the level of financial risk increases. According to the classification of liquidity of assets, the highest level of liquidity is held by cash on hand, current account funds and demand deposits.
profitability	The risk of profitability is manifested in fluctuations in the level of profit that companies expect to receive in financial and economic activities.
financial stability	The risk of financial stability is to upset the balance and stability of financial and economic development of the enterprise.

Continuation of appendix G

reversibility	The speed and period of turnover of financial assets is determined primarily by the internal conditions of the enterprise - the clarity of goals, strategy developed, the optimal management structure and the effectiveness of risk management. The occurrence of the risk of turnover is also influenced by external factors - the speed of settlement and cash service, the presence of administrative restrictions on financial transactions, the level of corruption of public authorities, imperfect legislation and more.
2.3. Other financial risks	
structural	Structural financial risk arises due to the lack of optimal cost structure (imbalance in fixed and variable costs, investment and operating, indirect and indirect, etc.).
emission	The issue arises due to the lack of demand or its excess for securities, the issue of which is carried out by the enterprise.
untapped opportunities	The risk of untapped opportunities is associated with the activity or inactivity of the entity, which leads to loss of opportunity to obtain income, profit or other financial and economic result in the presence of favorable external (low competition, high demand) and internal (significant potential, sufficient resources) factors.

Source: compiled by the author according to the company

Identification of financial risks of PJSC "Kalinov Machine-Building Plant"

№	Risk groups	Manifestation of risks at the enterprise
1.		External financial risks
1.1.	inflationary	The coronavirus crisis will have long-term consequences for both the world economy and Ukraine. New waves of pandemics and new strains of the coronavirus are constantly emerging, forcing governments to impose quarantine restrictions. Despite the fact that companies and people are finding different ways to adapt to the new reality, the risk of high inflation is growing. Ukraine's economy is expected to recover in 2021, creating inflationary pressures for the NBU (in May and June 2021, inflation was 9.5%).
1.2.	currency	Most of the orders executed by the issuer are long-term (from 3 to 36 months). The main markets for the company are Ukraine, the Republic of Belarus and Turkey. The total revenue of the enterprise for 2020 is UAH 111.7 million. of which exports - UAH 75.9 million. from total revenue. The total expected profits from concluded but not yet executed agreements (contracts) at the end of the reporting year in the amount of 204050 euros. That is, export earnings are up to 69%, so currency risk is significant, it is associated with exchange rate fluctuations and it is necessary to control and find ways to minimize the negative impact.
1.3.	depository	There are three main channels that the NBU uses to influence the economy: the interest rate channel, the lending channel and the exchange rate channel. The first is the most understandable. When the NBU finds that inflation is about to get out of control and rise above the target level, it raises the discount rate. This leads to an increase in interest rates on loans and deposits. Faced with such changes, firms and households are reducing their investment and consumption.
1.4.	tax	For the company of the main types of tax risks there is a risk of non-refund of VAT. As PJSC Kalinov Machine-Building PlantPJSC Kalinov Machine-Building Plantexports a significant share of its products, it is important to control this risk.
2.		Internal financial risks
2.1.	credit	The company operates on the principle of self-financing, self-financing and self-sufficiency. During 2020, the company was financed mainly from its own funds. According to the decision of the Supervisory Board dated 31.07.2020, a loan in the amount of UAH 120,000 was attracted from JSB Ukrgasbank. The loan was raised at 14.7% per annum. As of December 31, 2020, the loan was fully repaid.

Continuation of appendix H

2.2.	dividend	During the reporting year, the Company's shares were not traded on the domestic and foreign securities markets, the Company's securities were not listed / delisted on stock exchanges, and no additional securities were issued. During the reporting year, PJSC "Kalinov Machine-Building Plant" did not perform or conclude transactions with derivatives or transactions in derivative securities. It did not issue any derivative securities. Therefore, this type of risk is not the main one.
2.3.	investment	Investment risk characterizes the possibility of financial losses in the process of investment activities of the enterprise. There are the following types of investment risk: the risk of real investment and the risk of financial investment. In 2020, the amount of long-term financial investments, which are accounted for using the equity method of other enterprises, remained unchanged, no income from equity participation was received.
2.4.	liquidity	The total liquidity ratio as of 31.12.2020 is equal to 1.286, which indicates a favorable liquidity condition of the joint-stock company's assets. The coefficient of financial stability (or independence or autonomy) of the joint-stock company as of 31.12.2020 is equal to 0.325, which is within the approximate positive value and indicates sufficient financial independence of the joint-stock company. The ratio of liabilities to equity is equal to 2.074, the ratio of borrowed and own funds.
2.5.	profitability	The company's net profit for the year ended December 31, 2020 amounted to UAH 741 thousand. against 10 274 thousand UAH. as of December 31, 2019. A significant increase in 2017-2019 in the cost of goods sold by 87.8%, with a significant increase in net income by 76.1%, led to a slight increase in gross profit by 19.1%.
2.6.	financial stability	The general analysis of the indicators of the capital structure group indicates the presence of significant financial risks in the activities of machine-building companies.
2.7.	reversibility	In accordance with the plans of the Company, its needs in working capital are met by the receipt of funds from operating activities. The company does not attract credit resources. Proceeds from operating activities are sufficient for timely repayment of liabilities.
2.8.	structural	Structural financial risk arises due to the lack of optimal cost structure. The growth of administrative costs and marketing costs in the analyzed period indicates that the company needs to find ways to optimize such costs.
2.9.	untapped opportunities	The risks of untapped opportunities for the analyzed enterprise will be as follows: failure to sign profitable agreements, loss of income from financial investments.

Source: compiled by the author according to the data [29, 34, p.566]

Models of predicting the bankruptcy of enterprises

Model name	Some factors included in the model	The results of empirical research
Model Altman	X1 - liquidity (working capital / assets); X2 - profitability (net profit / shares); X3 - profitability (profit before taxes and interest / assets); X4 - financial stability (equity / debt); X5 - turnover (revenue / assets)	$Z = 0,717X_1 + 0,847X_2 + 3,107X_3 + 0,42X_4 + 0,998X_5$ $Z < 1,8$ - the company has a high probability of bankruptcy; $1,8 < Z < 2,9$ - the company is in a zone of uncertainty; $Z > 2,9$ - the enterprise is financially stable
Model Springgate	X1 - working capital / assets; X2 - profit before taxes and interest / assets; X3 - profit before interest / short-term debt; X4 - revenue / assets.	$Z = 1,03X_1 + 3,071X_2 + 0,66X_3 + 0,4X_4$ If the criterion for the enterprise is $Z < 0,862$, then the enterprise is a potential bankruptcy, if $Z > 2,451$, then the threat of bankruptcy is minimal and the enterprise is financially sound
Taffler and Tishaw model	where X1 is operating profit / current liabilities; X2 - current assets / liabilities; X3 - current liabilities / total assets; X4 - net income / total assets X4 - net income / total assets	If the value of Z calculation is more than 0,3, it means that the firm has good long-term prospects, if less than 0,2, then bankruptcy is more than likely.
Model O.O. Tereshchenka	X2 - the ratio of balance sheet currency to liabilities; X3 - the ratio of net income to the average annual amount of assets; X4 - the ratio of profit to revenue; X5 - the ratio of inventories to revenue; X6 - the ratio of revenue to fixed capital.	$Z = 1,5x1 + 0,08x2 + 10x3 + 5x4 + 0,3x5 + 0,1x6$ The obtained values of Z can be integrated as follows: $Z > 2$ - the company is financially stable and it is not threatened with bankruptcy; $1 < Z < 2$ - the company has a disturbed financial balance (financial stability), but it is not threatened with bankruptcy if the transition to crisis management; $0 < Z < 1$ - the company is threatened with bankruptcy if it does not take remedial action; $Z < 0$ - the company is semi-bankrupt

Source: grouped by author by [40]

Form for the register of risks of PJSC "Kalinovsky Machine-Building Plant"

№	Risk to achieve the objectives	Causes of risk	Description of possible consequences of risk realization	Risk response plan		Evaluation of the effectiveness of actions in case of risk realization	Risk assessment (residual risk)			Risk owner
				Preventive measures	The person responsible for the event		Probability of implementation	Assessment of negative consequences	Risk rating	
1										
2										
3										

Source: Compiled by the author according to the company

**Mental traps in the identification of financial risks of PJSC "Kalinovsky
Machine-Building Plant" by the method of "top-down"**

Mental traps	Description	Example
Experience and habits	Focusing on past events prevents you from seeing new ones threats	Comparison of the current economic situation with the crises of past periods.
The illusion of control	Confidence in the control of certain types of risks hinders their objective assessment	The increase in unpaid accounts payable poses a threat to the solvency of the enterprise and may result in loss of part assets in court
Underestimation of risks to benefits	Guide usually underestimates the risks that promise significant benefits in future	Reckless investments in the renewal of fixed assets of the enterprise "bind" capital and increase interest rate risks
Situationality solutions	Decisions are often made that reduce current risks, but increase prospective ones.	Purchasing large volumes of components at a current price leads to immobilization of funds and loss of the opportunity to purchase at a more favorable price in the future.

Source: Compiled by the author according to the company and [35, p.25]