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OPTIMAL MECHANISMS OF FINANCIAL RISK MANAGEMENT IN REAL SECTOR ENTERPRISES

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Abstract

In foreign experience, various effective ways are used in the management of financial risks in enterprises, for which various systems and standards have been developed. however, in the management of financial risks of enterprises of the real sector of the Republic of Uzbekistan, a single concept was not formed. In order to in this article, an analysis of the effective methods used in managing financial risks that correspond to our conditions was carried out and an attempt was made to formulate the most optimal. The article examines the financial risk management practices of real sector enterprises operating in the Republic of Uzbekistan, in particular, 3 joint-stock companies JSC "Quartz", JSC "Kokand Mechanical Plant" and JSC "Kyzylkumsement". Optimal mechanisms of financial risk management for the Republic of Uzbekistan are considered.

Keywords: Financial risk, diversification, hedging, insurance

INTRODUCTION

The globalization and liberalization of the world economy, the complexity of interstate economic relations, the development of information and telecommunications technologies, the acceleration of economic processes, their enrichment with new components, and non-stationary cyclic process - all this creates exogenous and endogenous financial risks of the financial structure. One of the main driving forces of the economy is the real sector enterprises. Changes in their financial situation can affect the entire economic system. Therefore, it is necessary to improve the management of financial risks of real sector enterprises in Uzbekistan. Timely



identification of their financial risks and taking the necessary measures will reduce the amount of financial losses. Managing one's financial risks through optimal mechanisms ensures the stability of the enterprise.

Although various systems, models, concepts, standards and methods for financial risk management have been developed and widely used in the world practice, in our practice there is still not enough attention to financial risk management.

Financial risk management, as a single system of risk management, should include a program to monitor the implementation of assigned tasks, to evaluate the effectiveness of measures taken, as well as a system of rewards at all levels of the organization.

In the management of financial risks, different effective methods are used depending on the type of these risks and the degree of loss. In this article, we will look at the most common and most acceptable of these methods, and the disadvantages of their successes.

LITERATURE REVIEW

Another simple method of determining financial risk management involves financial instruments, and any risk arising from the use of financial instruments is included in financial risk management. (Michael B.Miller, 2019). According to this definition, the financial risk arising from interest rate swaps is within the scope of financial risk management, whether or not the participating parties are financial institutions, and this has been accepted by many practitioners. Financial risk management can be defined in terms of financial firms or financial instruments.

According to Boehm, risk management is a series of steps to identify, address, and eliminate software threats that are a major source of threat or costly processing for successful software. Financial risk management is the process of dealing with the uncertainties that arise as a result of financial markets (Karen A. Horcher, 2005) Risk management is the identification, evaluation, and decision-making of the treatment of certain risks faced by an enterprise (or individual) by the enterprise (or individual). "These procedures can be formal or informal, involving quantitative and qualitative assessments that lead to reconsideration and decision-making" (P.Moles, 2013) says Peter Moles in his book Financial Risk Management Sources of Financial Risk and Risk Assessment. Heinz-Peter Berg calls risk management risk-based security management, which focuses on risks that can be managed using circulating financial instruments. The purpose of risk management is to minimize the various risks associated with a pre-selected area. Here, he was referring to the many types of threats posed by the environment, technology, people, organizations, and politics. (Heinz-Peter Berg, 2010)

RESEARCH METHODOLOGY

Comparative analysis, logical thinking and expert evaluation, generalization and grouping, forecasting, analysis of selected literature, as well as views and approaches of scientists and experts in the field on the topic of this article were effectively used in the research.

ANALYSIS AND DISCUSSION OF RESULTS

Real sector enterprises use internal and external mechanisms to manage financial risks, including financial risk management techniques. Below we discuss in detail the methods of financial risk management, ie. their characteristics, advantages, disadvantages and areas of application (See Table 1).

The use of any method of protection directly leads to additional costs, or a decrease in profits or limited business opportunities. For this reason, the art of financial risk management is primarily concerned with finding a balance between risk and protection. As the Table 1 shows, many management practices are associated with specific types of financial risks. For example, currency or inflation risks can be managed primarily through hedging. Therefore, the choice of methodological tools for financial risk management largely depends on the composition of the main financial risks of the structure of real sector enterprises.

In order to find out how these mechanisms are used in the real sector enterprises under study, we will get acquainted with the normative and legal documents of the real sector enterprises under study.

- I. The practice of risk avoidance is used when the amount of financial risk in the enterprise exceeds the return on that risky activity.
- II. The mechanism for limiting the concentration of financial risks is usually applied to species that are above the permissible level, for example, for financial transactions in the area of significant or catastrophic risk (Blank, 2005). Establishing intra-firm standards in the development of a particular financial transaction or firm's financial performance program can also help minimize risks (Skamay, 2000).

Table 1 The essence and characteristics of financial risk management methods.

Method	Essence	Achievements	Disadvantages	Application			
Internal mechanism							
Avoid risks	Avoidance of risk transactions, operations and actions	No costs. Completely eliminates financial risk	Earnings are lost. Avoiding one risk can result in 2 chisels	In financial risks leading to catastrophic consequences			
Limitation	Quantitative restriction of risky transactions and transactions	Relative low cost. Reduces the risk of loss	The probability of making a profit is reduced. Not suitable for every risk	When giving a commercial loan, when distributing the investment			
Hedging	Positioning the asset in the opposite position in the financial market	The goal is achieved despite market volatility	Speculative risk, no additional income. The field of application is narrow	In currency and inflation risks			
Diversification	Distribution of financial risks by unrelated objects, processes, time intervals	Reduces the risk of loss without additional costs	Some financial risks cannot be applied. (inflation, tax)	In unsystematic risks			
Transfer	Transfer financial risks to 3 people, for example, transferring a portion of the risk to a partner.	Financial risk reduces the scope. Easy to use	Relevant partners will be needed. Additional costs are required	Any risk of finding a partner			
Self- insurance	l compensate for the l		Costs will increase. Capital is immobilized	In risks where other methods cannot be used			
		xternal mechanism					
Insurance	Reimbursement of losses from insurance funds	High reliability. Easy to use	There are uninsured risks. Additional cost	At high risk of loss			
Warranty	Commitment in the event of financial risk by 3 persons. For example, a state guarantee.	Minimal risk of loss	You need to have a credible image	At large project risks			
Factoring	Purchase of receivables by commercial banks on the basis of certain discounts	No risk of loss. Easy to use	High costs	Risks associated with the delivery of goods			
Promissory note	Transfer of debt obligations to another payer	Minimal risk of loss. Easy to use	The need to clarify the relationship with the 3rd person	At the risk of debt obligation			

^{*}prepared by the author.



JSC "Quartz" has introduced the following limiting mechanism:

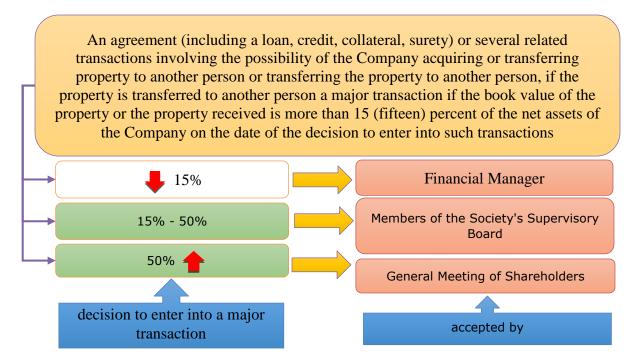


Figure 1. Limiting mechanism in JSC "Quartz"

III. Hedging is the insurance against price risk for any goods and materials under contracts and commercial transactions. According to it, the delivery (sale) of goods should be carried out in subsequent periods. Hedging features:

The economic essence of financial risk hedging is the partial or complete optimization of financial risks to the detriment of profitability. To protect his financial position, Hedger decided to give up the extra income he could get in a favorable market environment.

A financial speculator, for example, takes hedges and uses currency hedging to make a profit, believing that market conditions will change according to the planned scenario. For them, derivatives (forwards, futures and options) are the most profitable, but at the same time the most risky investment option.

□ Preventing financial risks always requires additional operating costs and temporary allocation of funds.

It is also important to keep in mind that methods that are cheaper for the user are limited or ineffective, and universal methods that have guaranteed results can be very expensive for the enterprise.

The effectiveness of financial risk management in accordance with the selected methodological tools depends on institutional and organizational factors. Usually, the complexity

and maturity of a financial risk management organization depends on its business size and profile. Thus, the strongest and most serious management system, employing many qualified professionals, is at the disposal of financial institutions - banks, insurance companies, investment funds. The following table shows the types of hedges and the differences between them, in particular, their meaning, types, advantages and disadvantages. (See Table 2)

Table 2. Characteristics of the main types of hedging

Characteristics	Option	Futures	Swap	Forward
Feature	A contract in which the buyer acquires the right to buy or sell the asset at a predetermined price at a later date (or for a specified period of time) in the contract.	The purchase and sale of a fixed asset (commodity, securities, etc.) is a financial instrument (contract) only with an agreement on price and delivery.	An exchange of various assets is a contract that allows the exchange of goods for a specified period of time and conditions.	a contract in which one party (seller) undertakes to transfer goods (fixed assets) to another party (buyer) or to perform an alternative monetary obligation within a specified period and the buyer undertakes to accept and pay for this fixed asset (Latin financial instrument)
Туре	1) Put option - for sale 2) Call option - purchase 3) Double option - two-way	Delivered futures - the buyer has to buy, the manufacturer has to sell Non-delivery futures - without product delivery, price risk is covered.	Percentage swaps; Currency swaps; Stock Exchange; Currency interest rate swap; Commodity swap; Active swaps; Precious metals swap; Credit swaps; Svopsion va REPO operation.	1) The settlement (nondelivery) does not end with the delivery of the forward asset. 2) Forward delivery - ends with the delivery of the fixed asset and full payment under the terms of the transaction (agreement).
Achievements	Speed (can take up to 2 banking days) Guaranteed income is obtained. Ability to perform the contract at any time. Cheapness.	Low initial margin. Applies to a variety of assets (stocks, indices, commodities, metals, agricultural products, public and private loans and borrowings).	Ease of financing. The flexibility of the contract is beneficial to both the buyer and the seller. It opens closed markets for participants.	Such transactions are over-the-counter and do not depend on trading sessions; they can be used to participate in an IPO.
Disadvantages	If the product has a high volatility, the price may change during the execution of the order. They are very complex and require inspection and maintenance. limited duration, leading to the expiration of most of them. Trading options is very difficult to produce and the average investor may not be able to do it.	Value. In this case, not only the commission fee to the broker, but also the obligation to pay a commission for delays. Not applicable for small assets. High credit shoulder size.	Lack of guaranteed implementation. There are no standard terms and they cannot be resold	It forces its participants to fulfill the conditions. The contract cannot be terminated - no changes to the terms are allowed. No additional pre-contract fees are charged, only to cover the difference in cost. gives more freedom.

Insurance and hedging are completely different approaches. With the help of an insurance policy, you protect yourself from risks and do not lose additional income. However, you will often have to pay more in the form of insurance. However, due to the underdevelopment of the financial market in Uzbekistan, the practice of hedging is very rare.

IV. Diversification - used to neutralize the negative financial consequences of unsystematic (specific) types of risks. The working principle of the diversification mechanism is based on the separation of risks, the prevention of their concentration. Describing the diversification mechanism, it should be noted that it has a selective effect on reducing the negative effects of certain financial risks. The non-systemic (specific) group has a clear influence on the neutralization of complex, portfolio financial risks, and most of these systemic risks - inflation, taxes, etc. - are not neutralized. Therefore, the use of this mechanism in the enterprise is limited. Diversification of financial risks is widespread in the world and has several manifestations (See Figure 2).

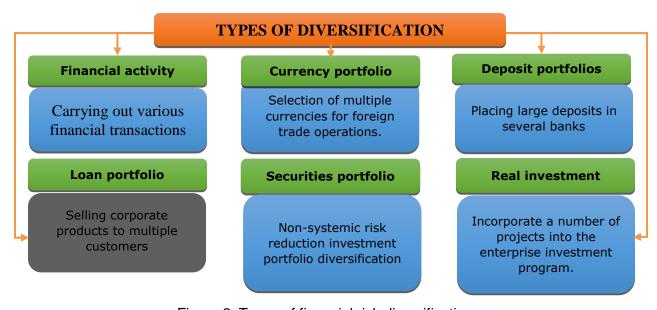


Figure 2. Types of financial risk diversification

The real sector enterprises we are studying are widely used in the diversification method, which has established partnerships with a number of subsidiaries to sell a wide range of products to more than 10 key customers. They are illustrated in the table below.

Table 3. Diversification of financial risks of real sector enterprises

Diversification	JSC "Quartz"	JSC "Kokand	ISC "Kyzydkumcomont"
type	JSC Quartz	Mechanical Plant"	JSC "Kyzylkumsement"
Scope of activity	Manufactures glass cans, glass bottles, compressed glass, automotive glass and ultra-durable materials.	Manufactures various types of metal structures, non- standard equipment, pressurized tanks for oil and gas and other industries.	Cement products, slabs, wall blocks, asbestos- cement products
Currency portfolio	Uz som, US dollar, euro	Uz som, US dollar, euro	Uz som, US dollar, euro
Shareholders	"State Assets Management Agency" 89.78%	"Uzneftegazmash"	"Uzpromstroy-building materials" 86.9%
Deposit and loan portfolio	JPMorgan Chase Bank Asaka bank National Bank AKB "Tenge bank"	Hamkorbank National Bank	National Bank
Partners	"Kungrad sodali korxonasi"UK, "Navoiy KMK" "Andijankabel"AJQK "Almalik KMK"AJ "Avtooyna"MCHJ "Fargʻonaazot"AJ	MXK "Uzbekneftegaz", AK "U ztransgaz", GAK "Uzkimyosanoat", "Uzpaxtasanoa", AK "Uzdonmaxsulot", AK "Uzspirtsanoat", GAK "Uzbekiston oziq-ovqat sanoati"	"Navoiy KMK" "Navoiyazot"AJ "Navoiy international airport" Korean air Citic telecom international, Keunecke silospedition Betan Green way Posco
Investment portfolio	Shares and dividends, IPO and SPO operations, corporate bonds, credit, long-term investment	Shares and dividends, IPO and SPO operations, corporate bonds, credit, long- term investment	Shares and dividends, IPO and SPO operations, corporate bonds, credit, long-term investment

This is determined by analyzing the effectiveness of the diversification policy of real sector enterprises, the dynamics of changes in the financial performance of the enterprise. The following table analyzes the financial risks of diversified portfolios (See Table 4 below).

Table 4. Diversified financial risk analysis (million soums)

Indicator	JSC "Quartz"			JSC "Kokand Mechanical Plant"			JSC "Kyzylkumsement"					
	2016	2017	2018	2019	16	17	18	2019	2016	2017	2018	2019
The difference between income and expenses from financial activities. From him:	2446	-6755	15180	13647	-2140	42	36	-7147	-1948	-7589	20985	42384
Differences from exchange rates	-1041	- 15559	518	7305	-136	66	17	-6927	-797	-7234	231	1003
The difference between income and expenses in the form of interest	3486	8570	14663	6342	-1962	-27	- 0,06	-242	849	9645	20754	41380

As can be seen from the table above, the level of financial risks of JSC "Quartz" is declining. This is due to the fact that the balance of financial activities in 2018-2019 is positive compared to previous years. Of these, foreign exchange risk decreased in 2017 compared to the previous year, while foreign exchange risk has decreased in recent years, and exchange rate gains have increased compared to previous years. We can see that the interest rate risks of JSC "Kokand Mechanical Plant" increased during the period under study, as during this period the costs in the form of interest exceeded the income. We can see that currency risks will increase by 2019. The increase in the level of financial risk of JSC "Kyzylkumsement" in 2017-2018 was caused by currency risks. During this period, the company suffered losses due to exchange rate differences. However, by 2019, these risks have been managed. This analysis gives us an analysis of the outcome of diversifying financial risks. This means that these enterprises do not have sufficient diversification rules. This is evidenced by the high share of the state in these enterprises. Therefore, today, work is underway to reduce and privatize the state share. In particular, it is planned to sell a 20% stake in the charter capital of JSC "Quartz" through a phased IPO on the stock exchange, initially expected to sell 5% of the stake this year. It is planned to sell 2.2 million shares (SPO) of Kokand Mechanical Plant JSC, which in turn will

reduce the share of Uzneftegazmash to 64.08% and increase the share of other shareholders to 35.92%. Also, according to the decree "On measures to further improve the mechanisms for attracting foreign direct investment in the economy of the Republic", it is planned to sell shares of 29 state-owned enterprises, including JSC "Kyzylkumsement".

V. The mechanism of **self-insurance** of financial risks is based on the reserve of some financial resources by the enterprise, which allows to eliminate the negative financial consequences for financial transactions that are not related to the actions of counterparties. The main forms of financial risk neutralization are:

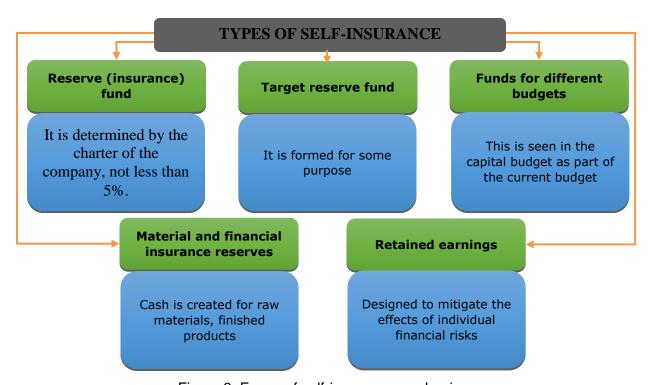


Figure 3. Forms of self-insurance mechanism

Self-insurance is a mandatory requirement for real sector enterprises in Uzbekistan. However, their quantity is determined by the normative documents of the enterprise. The requirements for reserve funds in the real sector enterprises are the same and look like this:

A reserve fund in the amount of 15 (fifteen) percent of the charter fund is created from the company's net profit. The reserve fund of the Company is formed by annual obligatory allocations in the amount of at least 5 (five) percent of the net profit until it reaches the amount specified in this Charter.

- In the absence of other funds, the Company's reserve fund is intended to cover the Company's losses, to issue the Company's corporate bonds, to pay dividends on preferred shares and to repurchase the Company's shares. The Company's reserve fund may not be used for other purposes.
- Other funds may be established in the Company in accordance with the decision of the general meeting of shareholders.
- When the reserve fund is fully or partially spent, it is recovered from mandatory contributions from net profit.

The following table shows the amount of reserve funds at the end of the year for the real sector enterprises we are studying. (See Table 5)

Indicator	JSC "Quartz"			JSC "Kokand Mechanical Plant"				JSC "	Kyzylk	umsei	ment"	
	2016	2017	2018	2019	2016	2017	2018	2019	2016	17	18	2019
Reserve capital	99	98	110	121	100	78	99	105	10	10	100	111
Retained earnings	209	126	125	24	118	120	47	16	609	10	6	125
Reserve for future expenses and payments	-	159	16	98	-	-	-	-	-	-	-	

Table 5. Analysis of the growth of reserve funds of real sector enterprises (%)

The table above shows the growth rates of enterprises' reserve funds. According to him, we can see that the composition of the reserve funds of these enterprises tends to change insignificantly. However, the retained earnings of these enterprises in JSC "Quartz" increased by 25% in 2017-2018, and in 2019 decreased by almost 80%. Kokand Mechanical Plant JSC decreased by 55% in 2018, while Kyzylkumsement JSC increased by 5-6 times in 2017 and 2019. In JSC "Kokand Mechanical Plant" and JSC "Kyzylkumsement" instead of reserve funds for future expenses and payments, special revenue funds will be formed.

Of course, with the formation of reserve funds, the catastrophic impact of financial risks on the company's operations was reduced. However, there are downsides to this. This is because it has been found that inactive money in the economy causes damage. These financial resources could be used by the company to expand its financial and economic activities. Therefore, in managing financial risks, an enterprise must deal with the factors of these risks, not the consequences.

VI. One of the methods of external financial risk management is the **insurance** method, which is recognized as the most effective method. This is because "the safest way to deal with all the financial risks that are practically impossible, especially due to unreasonably high costs, is to insure them. The financial system includes intermediaries, such as insurance companies that specialize in risk transfer activities. These companies collect special insurance premiums from customers who want to reduce their risk and give them to investors who agree to pay insurance claims and assume the risk in return for a certain premium. "Therefore, "insurance companies not only play an important role in managing the financial risks that may arise in the activities of corporate structures, but also act as an investment institution in a market economy and invest in corporate structures through the financial market."

The following figure shows the growth rate of financial risk insurance activities of insurance companies operating in the Republic of Uzbekistan in 2019 compared to 2018. (See Figure 4) As can be seen from the graph, today the practice of insurance companies to insure various other financial risks is increasing. In particular, in 2019, compared to 2018, the receipt of premiums for financial risks increased by almost 144%, which indicates that the real sector of Uzbekistan pays special attention to financial risk management.

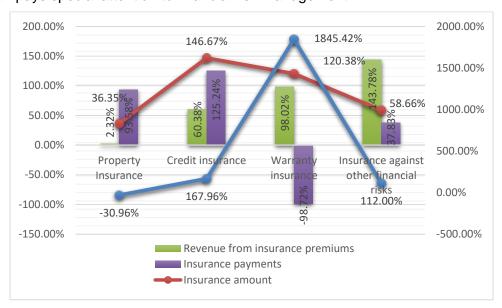


Figure 4. Growth rates of financial risk insurance in 2019

Even during this period, when financial risks arose, the number of insurance claims collected by real sector enterprises increased by almost 38%. We can see from the chart above that the practice of credit insurance is also widely introduced. In it, we can see that in 2019, compared to 2018, the amount of premiums paid by enterprises to insurance companies for credit risk exceeded the amount of compensation received by them. The largest number of transactions in 2019 was related to the insurance of guarantees, which is an increase of almost 1900% compared to 2018. However, in this type of insurance, the amount of insurance compensation decreased by 99%. In general, it is advisable to use the insurance method as an external mechanism for managing the financial risks of real sector enterprises for the following purposes:

- If a financial risk factor is identified during the development of the business plan;
- High level of financial risk in new investment projects;
- Prevention of uncertainty in the formation of the investment portfolio;
- To cover losses caused by financial risks;
- Insurance as a reliable method saves time and financial resources than other methods when uncertainty is high.

As a clear indication of the current state of financial risk management in real sector enterprises in the Republic of Uzbekistan, the study of their organizational structure shows that the financial manager (director) does not have a specialist in financial risk management.

While the internal control regulations adopted at Kyzylkumsement and Kokand Mechanical Plant, which are the subject of our study, look the same, Quartz JSC has introduced a section called "Risk Management", along with many changes, innovations and extensions. The internal control regulations of these societies and their differences are given in the table below. (See Table 6)

Table 6. Internal control regulations of real sector enterprises

	JSC "Quartz"	JSC "Kokand Mechanical Plant"	JSC "Kyzylkumsement"		
Definition of internal control	-	+	+		
Internal Control	System Audit Commission; Internal Audit Service; Corporate Consultant. The system of internal control is defined by the internal documents of the company and consists of an audit commission, internal audit service, supervisory board, execu body and employees at all levels.				
Principles of internal control system	 Continuous operation Accountability of all participants of the internal control system Distribution of responsibilities Ensuring a separate organizational unit for the day-to-day internal control of the Company; Carrying out internal control on the basis of clear and thorough cooperation of all divisions of the society; The urgency of reporting abnormalities 				
Components of		control environment			
the internal control system		 risk assessment - means the identification relevant risks that are inextricably 			

Duties of the Supervisory Board	In the direction of internal control of society policy, internal control and risk management system development directions and strategies, internal control and risk management system defines principles and approaches.	of certain tasks at different levels and in the internal sequence; The society takes appropriate measures to protect against unauthorized access to information Monitoring approval of the direction of development of the internal control system and the identified measures and strategies; on the basis of reports of the head of the executive body, internal and external audit, audit commission and other sources covering all aspects of internal control, as well as information from sources such as financial control, operational control, compliance with the law, control over internal policies and measures to evaluate the reliability and effectiveness of the internal control system and report annually to the annual general meeting of shareholders on the results of the analysis; determination of the structure and composition of the divisions of the company responsible for internal control; Continuous improvement of internal control measures.			
Audit Committee	Organize control over the financial statements of the company, the reliable and effective organization of the internal control system				
Head of the executive body of the company	Distributes powers, duties and responsibilities among the heads of structural divisions of the Company on certain internal control and risk management procedures;	The head of the executive body of the company is responsible for the organization of internal control activities in the company in accordance with the company's policy in the field of internal control, approved by the company's supervisory board.			

Here, the definition of internal control is given in the regulations of JSC "Kyzylkumsement" and "Kokand Mechanical Plant". According to him, internal control is a continuous process aimed at the Company's activities, aimed at improving the effectiveness of risk management, control and corporate governance processes, based on the Company's goals in the following areas and achieving a sufficient level of relative success:

- efficiency and effectiveness of operations, including efficiency, profitability and level of asset protection;
- reliability and accuracy of financial statements;
- Compliance with laws and regulations governing the activities of society.

The internal control charter of JSC "Quartz" has a section "Risk assessment", which stipulates that the assessment, control and management of certain types of risks related to the activities of the company are carried out by management and structural units in accordance with internal procedures. The Company exchanges information between the governing bodies, supervisory authorities and structural divisions of the Company, which is necessary for the rapid and strategic management of risks.

CONCLUSIONS AND RECOMMENDATIONS

From the above we can draw the following conclusions:

- 1. Internal and external mechanisms are used in financial risk management. Bunda, Internal methods include risk avoidance, diversification, limitation, self-insurance and hedging. External mechanism include insurance, warranty, factoring and promissory note.
- 2. Real sector enterprises of the Republic of Uzbekistan shall use the internal control regulations when using the standards applied in the management of financial risks abroad.
- 3. While the management of financial risks abroad uses different appropriate methods depending on the type and size of financial risks, the enterprises of the Republic of Uzbekistan mainly use internal mechanisms.
- 4. In foreign practice, the practice of hedging from an external mechanism is widespread, but in Uzbekistan a very small percentage uses insurance.

From our review, analysis and conclusions, we have formulated the following recommendations:

- 1. Each method used in financial risk management has its advantages and disadvantages, so it is advisable to plan a separate strategy for each of the expected financial risks.
- 2. Given the lack of development of the stock market in the Republic of Uzbekistan, except for internal mechanisms for the management of financial risks in real sector enterprises, the expansion of insurance practices is the best option
- 3. It is necessary to determine ways to involve the financial risks of real sector enterprises in the country by creating insurance mechanisms that insure, minimize insurance indemnities and increase the amount of premiums;
- 4. It is expedient to identify measures to improve the derivative securities market in the country and to gradually develop the practice of hedging financial risks.

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