### HIGHER SCHOOL OF INSURANCE AND FINANCE-SOFIA

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# **RISK MANAGEMENT OF FINANCIAL ASSETS**

## ABSTRACT

of a dissertation for the award of the educational and scientific degree "Doctor" Scientific advisor: Prof. Virginia Zhelyazkova, DSc, PhD

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The dissertation consists of 192 pages. The literature used covers a total of 160 sources in Cyrillic, Latin and Internet sites.

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The materials for the protection are available to those interested in the VUZF Library

#### I. GENERAL CHARACTERISTICS OF THE DISSERTATION

#### **1.** Relevance of the research

The problem of risk management is relevant and complex due to its importance both in human terms and within its specific dimensions. The acceleration of the processes of globalization, on the one hand, has a direct and ambiguous impact on all social processes, and to the greatest extent on the financial climate. On the other hand, the development of the concepts of the dominance of market management, as the basis of all economic activity, takes place in the conditions of many difficulties, which are specific to the current state of each economy. The reasons for this are due to the fact that the future results of investment or other business activities are significantly affected by both the shocks in economic policy and the numerous factors of market conditions that do not depend directly on economic entities, and the fact that economic phenomena and processes are also influenced by a large number of non-economic factors.

The realities show that applying the principle of free interaction of market participants and ensuring fair market competition inevitably increases uncertainty and economic risk. Each type of activity carried out by a system contains one or another risk, which manifests itself under certain conditions and may have negative or positive consequences for the system as a whole or for its structural parts. This view is related to the understanding of the objectivity of risks and their presence everywhere. In these conditions, it is extremely difficult to choose optimal solutions and predict their consequences. Therefore, in the system of market relations, financial risk is an objectively necessary economic category, process and phenomenon, which requires the development of both the theory and practice of financial analysis. According to the general opinion of risk scientists, the theory of risk does not fit within the currently dominant scientific ideas, but has its own philosophy, which is radically different from the leading theories (concepts) in classical science. This affects its three main axioms: comprehensiveness, admissibility, non-repeatability. It can be argued that the majority of management decisions are taken in terms of a certain risk, due to a number of factors - lack of complete information, the presence of opposing trends, elements of chance, etc. It would be unreasonable to think that risk-free entrepreneurship is possible. Risk management is inherently the other side of the freedom of entrepreneurial activity, ie. its intrisic price. In order to succeed in the conditions of fierce market competition, it is necessary for the economic entities to go for the introduction of innovative, non-traditional technologies, which objectively increases the risk. In any business idea, it is important not to avoid the risk, which is practically impossible, but to anticipate it and, if possible, to minimize it.

Therefore, the problem of quantitative and qualitative assessment of opportunities for large losses in the implementation of financial and other activities is relevant and requires continuous development. The importance and responsibility for finding solutions to these problems is the leading motive in the selection and development of the doctoral thesis.

The general plan of the defended thesis is based on separate problems in the management of financial risk. In this regard, the analysis is aimed at revealing some of its theoretical and applied aspects. An opportunity is being sought for the disclosure of certain methodological aspects for the assessment of financial risks. The analysis reveals existing problems in the accumulation of money capital and the associated risk, functions and certain problems in financial management. Particular attention is paid to the problems in risk management in commercial banks.

The relevance of the study stems from the dynamic changes in recent years in our country, in Europe and in the world. The destructive processes in the country and in the world have created an atmosphere of social insecurity and opportunities to maximize financial risks. Incorrect economic views have, as expected, led to dysfunctional economic policies, stagnation in the economy and escalating debts. The main feature of modernity has become not simple interaction, but interdependence, especially for the countries within the European Union. This reality requires seeking knowledge of the model of the general picture of risk and its specific manifestations, which should be used in the analysis, management and control of risk, both in the economic and financial spheres.

#### 2. Main characteristics of the research

The aim of the study is to analyze the theories and practices of risk management, revealing the conditions and some of the mechanisms for improving risk management in financial activities and to follow the trends presented in a more comprehensive concept.

The object of the study is the management of financial risk in the process of accelerating and deepening globalization, which has a direct and ambiguous impact on the dynamics of all social processes, including the uncertainty and risk in the financial sphere.

The subject of the study is the methodology of current trends in risk management based on the characteristics of capital flows in national and international practice and the resulting risks to financial assets and investments.

The scientific method of the research is a complex comparative analysis of foreign and Bulgarian theoretical views and practices related to risk management in the financial sphere.

Solving the problem inherent in the doctoral thesis required a thorough analysis of existing and possible approaches to ensure risk minimization. The study is aimed at revealing the possibilities for optimizing risk management, dictated by modern realities arising from modern geopolitics and geoeconomics, problems in the state, management and regulation of financial policy, factors generating risks and threats to the financial stability of the country. This necessitated the search for and disclosure of the causal links between weaknesses and threats arising from inadequate risk management.

In this regard, taking into account the limited financial capabilities of countries such as Bulgaria, the opportunities for optimizing the management of financial risk and Bulgaria's participation in the processes of ensuring the financial stability of the European Union countries are analyzed and revealed.

The author's research thesis is aimed at researching and analyzing the many theoretical and applied aspects that ambiguously consider the trends in the development of risk in financial activities in the new contradictory economic and financial realities, as well as to reveal some new problems related to management of risk, which have not been the subject of a more detailed analysis. An example of a real stress test is used.

#### **II. VOLUME AND STRUCTURE OF THE DISSERTATION WORK**

The dissertation consists of 192 pages. The literature used covers a total of 160 sources in Cyrillic, Latin and Internet sites.

The study is structured in four chapters. The first chapter is devoted to the general principles of financial risk management. The focus of the second is the analysis of the functions and sources of financial assets. The object of the third chapter is the analysis of the functions and instruments of the financial markets. The fourth chapter discusses some current problems in the formation of financial assets. The conclusion presents the main conclusions of the study.

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#### **III. SYNTHESIZED PRESENTATION OF THE DISSERTATION**

#### FIRST CHAPTER. General principles of financial risk management

The risk in the financial activity in theoretical and applied aspect manifests itself completely independently as an important component of the theory and practice of management. The existence of risk is directly related to the problem of uncertainty in any situation, which is diverse in both form and content.

In his doctoral dissertation Risk, Uncertainty and Profit, published in 1921, Frank Knight built his decision-making analysis on the difference between risk and uncertainty. Uncertainty is seen as radically different from the well-known concept of 'risk', from which the two concepts have never been distinguished in any way before. From this it is clear that the measurable uncertainty, ie. the risk is so far from immeasurable uncertainty that, in essence, there is no uncertainty at all.

Risk manifests itself as one way to reduce uncertainty, which is inherently ignorance of the authenticity or lack of ambiguity. Emphasizing this understanding of risk is important from the point of view of the fact that in practice to optimize its management and regulation, ignoring the objective and subjective sources of uncertainty, is hopeless.

World economics is represented by classical and neoclassical risk theory. All analysts of entrepreneurship emphasize its most important feature - the presence of risk at the stage of starting

a business, as well as in the process of further functioning of the business. Adam Smith also emphasizes that the entrepreneur is a person who acts in conditions of risk and as an owner goes to risk to realize a commercial idea and make a profit.

The classical theory of risk, based on John Mill and William Senor, identifies risk with the mathematical expectation of losses due to the choice of one or another solution, ie. the risk is considered as damage as a result of the implementation of a decision. Such a one-sided and limited approach to understanding the nature of risk is difficult to accept.

In the 1930s, economists Alfred Marshall and Arthur Pigou developed the foundations of neoclassical risk theory, the essence of which is that the entrepreneur, preferring one of the alternative solutions, should be guided by two criteria: first, by the magnitude of the expected profit and secondly, the size of its possible fluctuations around the average value of the profit. However, such an approach does not take into account the factor of the entrepreneur's personal attitude to risk. Special attention is paid to this fact by John Keynes, who writes about "risk costs" and their coverage and considers it appropriate to take into account three main types of economic risk in economic processes: first, the risk of the entrepreneur; second, the creditor's risk and third, the risk associated with the possibility of depreciation of the currency.

An analysis of the economic literature related to risk issues shows that there is no consensus among researchers on the definition of entrepreneurial risk. In this respect, there is still no unambiguous understanding of the nature of risk. For example, Hristo Draganov understands insecurity as a personally perceived sense of risk in a given situation. Russian researchers Galina Chernova and Andrei Kudryavtsev perceive uncertainty and risk as similar concepts. This is explained, in large part, by the multifaceted nature of this phenomenon. In addition, risk is a complex phenomenon with inconsistent and sometimes contradictory underpinnings.

At the heart of any business activity is the expectation of receiving an income higher than the ordinary, average income. This expectation is vague enough and may or may not come true, so business is always associated with risk.

Risk is at the core of our being and therefore underlies all activity. As a probability category, its interpretation and quantitative dimension cannot be unambiguous. Therefore, the category "risk",

in our opinion, can be defined as the risk of potentially possible, probable loss of resources or reduced income compared to the option that is calculated in the rational use of resources in a given type of activity. In other words, we view the risk as a threat that the entity will incur losses in the form of additional costs or receive lower incomes than expected.

Although the consequences of risk most often manifest themselves in the form of financial losses or inability to achieve the expected profit, the risk is not only an undesirable result of the decisions taken. In certain cases, in investment projects there is not only a danger that the intended results will not be achieved, but also a probability that the expected profit will be exceeded. This should be understood as the essence of financial risk, which is characterized by the combination of the possibility of achieving both undesirable and particularly favorable deviations from the planned results, which is the motive for taking it.

It is considered that the quantitative assessment of the degree of risk allows to influence the economic process in question with greater reliability in order to increase the profit and reduce the risk. It is worth noting that the difference between risk and uncertainty refers to the way the information is set and is determined by the presence (in case of risk) or the absence (in case of uncertainty) of probabilistic characteristics of uncontrollable changes. In this sense, these concepts in mathematical theory are used to study operations, which distinguish the tasks of decision-making at risk and, accordingly, in conditions of uncertainty.

If it is possible to qualitatively and quantitatively determine the degree of probability of one or another option, this can also be defined as a "risk situation".

To understand the nature of financial risk, the relationship between risk and profit is fundamental. The financier is willing to take risks in conditions of uncertainty, above all, because along with the risk of losses there is a possibility for additional income. While it is clear that making a profit is not guaranteed, the reward for lost time, effort, and ability can be both profitable and unprofitable. Emphasizing, in determining risk, on the expectation of loss underestimates the creative function of risk. Without the ability to take risks, modern achievements would not be possible. According to Anthony Giddens, risk is part of the "colonization of the future".

Later, Ulrich Beck not only defined risk as "the modern approach to anticipating and controlling the future consequences of human action," but defined it as "a map for colonizing the future."

At the heart of modern concepts of risk management are the concepts of "risk and return". The inevitability of risk in the pursuit of excessive income is taken into account when planning for the creation and future development of business plans. For example, when conducting marketing research, the possibility of losses due to reduced demand and changes in the prices of products and resources is taken into account, ie. there is room for economic risk. The planning and organization of business processes takes into account the risk of reducing profitability, setting a certain level of efficiency in the use of resources and, accordingly, the level of current costs and profits. In the process of monitoring the business plan, the perceived and accepted level of risk is controlled in organizing and coordinating the activities of divisions and contractors. Therefore, the remuneration of managers should depend on their ability to anticipate developments and make effective decisions in conditions of increased risk.

At risk, the financial entity chooses the opportunity to make a super profit and at the same time to be at a loss. Thus, the pursuit of victory runs counter to the goal of "safety". But incomes above the ordinary or above the average, as a rule, are achieved as a result of risky actions.

Along with this, there is an inverse relationship between risk levels and liquidity, ie. the higher the level of liquidity, the lower the level of risk. High return on financial assets can be achieved by minimizing provisions, but which is fraught with the possibility of failure of operating processes and a significant risk of loss of liquidity, and on the other hand excessive provisions inevitably threaten the transformation and profitability of assets. Probably, we can talk about some optimal (equilibrium) level of risk, where there is room for both the required level of profitability and a sufficient degree of liquidity.

It is worth noting that the financial entity may partially transfer the risk to other entities in the economy, but it is impossible to completely avoid it. The reality shows that in order to make a profit, risky decisions must be made consciously. Therefore, in our opinion, the uncertainty and risk in the financial activity play a very important role, including in it the contradiction between the planned and the actual, which are the source for the development of each activity.

The logical justification for the risk, in our opinion, is manifested in the fact that if for the financial subject this is a natural state, then the tolerance for failure should also be natural. Therefore, enterprising businessmen need social protection, legal, political and economic guarantees, excluding sanctions in case of failure and at the same time stimulating the justified risk. The

economic operator should be assured that a possible error (risk) will not compromise either his activity or his image, as it is the result of a calculated risk, although the risk was not justified.

Financial activity requires continuous assessment of the amount of risk to which it is associated. Practice has imposed two approaches to its evaluation - theoretical and empirical. The theoretical approach reveals the requirements for the results of the adopted decisions related to the risk. In it, the risk is calculated not on the basis of past experience, but with the help of logical reasoning. The empirical approach considers the expected risk, analyzing it on the basis of past, already studied events, summarizing information about mass facts and phenomena.

The behavior of most of the financial entities in a risk situation can be divided into two characteristic types - first, active activity, taking full responsibility for the risk on themselves and second, passive activity with elements of risk.

In the first case, one takes a risk in order to make more profit, and in the second - in the hope of avoiding losses. There are different views on these two types of behavior. However, the fear of risk-related losses is very high among the entities operating in the conditions of developed market relations. Therefore, from the possible solutions are often chosen those that take into account the completely reliable options, thus the entity abandons the more dynamic development of its business.

The majority of financial entities report risk only under duress, when they are in a difficult situation, under the pressure of changes in market conditions, market competition, loss of corporate customers, i.e. then, when the continuation of the specific type of activity is in question and the very existence of the institution is put on the map.

It should be emphasized that even a simple understanding of the concept of "risk", and even more speculative assessment of its size, strongly depends on the subjective perceptions of the financial entity, the level of its preparation, awareness, type of psyche and even the mood in the individual. moment. Decision-making is influenced by his basic training, education, previous experience.

Risk reporting and the ability to take entrepreneurial risk must correspond to measures to reduce it. In our opinion, one of the most radical measures is risk insurance. An important way to reduce the negative consequences of risk is the creation of stocks, reserves. In cases of risk due to doubts about the reliability of counterparties, the economic condition of the contracting entities and their behavior in other transactions should be studied. In many cases, it is possible to reduce the risk by sharing it with guarantors, if possible. The advance payment of the transaction significantly helps to reduce the risk of non-payment.

The existence of risk, as an integral part of any business process, shows that its management in many cases manifests itself as an independent type of professional activity. In determining the nature of this activity, several positions oppose each other. We believe that two of them are major.

The first is characterized by the fact that it reflects the idea of the nature of management as a special function of public work. In this case, the focus is on management as an independent activity. Particular attention is paid to "coordination" and "coordination", which emphasize the appropriateness of management and the diversity of its functions. In this way, the systemic nature of the management activity, its complex structure and the dependence on the contradictory impact of the external environment are recognized.

In the other approach, the focus is not on the whole activity in the management, but only its final part, namely the management. In this situation, the goal setting, the modeling of the activity, the expert substantiation of the decisions remain in the shadows. This approach is very close to the command, centrally managed economy, when management takes a one-way form - "top - down", ie. actions with a command flavor.

Risk management is faced by every individual in every life situation. It is always necessary to take certain precautions and decide whether it is worth the risk or whether it is necessary to reduce the possible dangers or losses in some way. Risk management is about being aware of what events can be dangerous and how they can be regulated or prevented. It is a synthetic process that studies the influence of the various spheres of activity of the subject in accidental events causing physical and material damage.

A broader definition of risk management is associated with a special type of management activity aimed at reducing the impact of risk on the performance of the enterprise (firm). The significance of the management decisions faced by the managers is determined, above all, by the level of risk acceptable to the company. Each of them is characterized by its own risk preferences. On this basis, the risks to which it is exposed in the process of financial activity are determined, it determines what level of risk is acceptable and the methods how to avoid the losses arising as a result of the specific risk. The combination of these actions forms the risk management system. This particular area of finance requires knowledge in the field of financial analysis, methods for optimizing solutions to relevant tasks, etc. Therefore, we believe that management and risk are interrelated components of any financial system. One can be a source for the other.

By their nature, the consequences of risk can be divided into pure and speculative. The peculiarity of pure risks (also called statistical or simple) is that they practically always carry losses for the financial activity. Causes of them can be natural disasters, accidents, incompetent management of the company and others. Speculative risk (also called dynamic or commercial) carries either losses or additional gains for the subject. Reasons for them may be in the change of exchange rates, change in market conditions, change in investment conditions and others.

A large group of risks is related to the purchasing power of the currency. Yeah, they're like that:

• inflation risks - due to the depreciation of the real purchasing power of money, which incurs real losses;

• deflationary risks - related to deflationary processes, in which the level of prices falls, and therefore incomes;

• currency risks - related to changes in exchange rates. They refer to speculative risks, where the loss of one entity as a result of changes in exchange rates, as a rule, brings additional profit to another entity, and vice versa;

• liquidity risk - related to losses in the sale of securities due to a change in the assessment of their qualities.

In our opinion, the investment risks related to the possibility of non-realization of expected profit or loss of profit in the process of realization of the investment project are one of the most common and significant. These include the following main aspects:

• risk of lost benefits - is associated with the occurrence of financial damage as a result of nonimplementation of certain activities;

• risk of reduced profitability - is associated with a reduction in dividends and interest rates on portfolio investments. It includes interest rate risk arising from an increase in the interest rates paid on borrowed funds above the rates on loans granted and credit risk arising in the event of default

by the borrower on the interest on the loan and the principal (principal debt) that the lender expects ;

• stock exchange risks - related to the risk of losses in stock exchange transactions;

• selective risks - are related to improper structuring of the types of investments and types of securities by the investor;

• risk of bankruptcy - is associated with a complete loss of equity as a result of improper investment.

If we consider the set of risks as a system in which each element occupies a strictly defined place and at the same time obeys the laws of the financial system as a whole, then the task of classifying risks is reduced to defining the system of risks and its constituent elements.

It is known that in the analysis of each system the following levels of its functioning are distinguished: mega-, macro- and microeconomics. Objectively, at each level of functioning there are specific levels of risks. Together, they form a single flow of risk, which is in constant motion and, consequently, development.

In principle, any classification is conditional, as the actual processes are much more complex. In the real processes between the indicated groups of risks there is an intertwining of the layers and in this connection the separate types of risks are manifested in the different groups simultaneously. For example, currency risk is present in each of the groups, which proves the interdependence of the groups and the elements.

Depending on the environment, financial risks can be analyzed as external and internal. External risks include those that are not relevant to the entity's operations. These are usually unforeseen changes in the legislation governing financial activities, lack of political stability and other similar situations. The source of internal risks is the company or credit institution itself. These risks arise from ineffective management and also as a result of internal abuses. Particularly significant internal risks are the personnel risks related to the professional level and some characteristic features of the employees.

The analysis of the classification features, types and subtypes of risk, in our opinion, can continue, but this will lead to a list of opinions of different researchers and experts, which does not answer the main question - what approach, what classification is the main and to what extent will it be able to reduce the degree of risk?

The most important for the financial risks and having the greatest practical significance is their classification as justified (legitimate) and unjustified (illegal) risks. In order to differentiate them, in our opinion, it is necessary to take into account, first of all, the fact that the border between them in the different types of financial activity and the different sectors of the economy is different.

All risks from the point of view of the possibility to be insured can also be subdivided into risks that are subject to insurance and risks that are not subject to insurance. Thus, some types of risks that are subject to insurance can be partially transferred to other financial entities (insurance companies) for certain costs in the form of insurance contributions.

In conclusion, we believe that it is practically impossible to completely avoid the risk, but by analyzing the source of losses, the subject is able to reduce the threat, i.e. to reduce the effect of adverse factors.

# CHAPTER TWO. ANALYSIS OF THE FUNCTIONS AND SOURCES OF FINANCIAL ASSETS

With the development of public relations, monetary instruments became more and more diverse, and also the form and nature of their movement changed. The state mobilizes financial resources to fulfill and expand its economic, social and political functions. Monetary relations in the sphere of circulation also spread in the sphere of production and distribution of the public product. Specific financial relations and institutions emerge, operating with various financial instruments in the form of money, national and foreign currency and securities.

The concept of "finance" becomes a widespread and generalizing economic category, characterizing the nature of monetary processes and monetary relations in society. The concept itself is associated with processes that on the surface manifest themselves in various forms and are necessarily accompanied by the movement of financial assets.

Understanding the nature of financial assets requires:

• first, clarifying the nature of money and monetary relations;

• second, the understanding that not all monetary relations and their groups, functioning in the exchange and distribution of the aggregate and the newly created product (income), are financial;

• third, understanding the objectivity of finance;

• fourth, understanding of the subjectivity of their organizational forms by society as a whole.

The evolution of finance and the financial system is also characterized by the following important circumstances:

First, by the fact that the economic processes of production, circulation and consumption of production are accompanied and to some extent reflect adequate financial processes of movement and change in values, the dynamics of income, costs and profits.

Second, separate financial transactions arise, ie. movement of financial assets as such, without being directly related to the production and sale of goods. Currency and stock markets are being formed, forming in their unity the financial market. The movement of financial assets takes on an independent character and thus the money circulation becomes a financial process.

With the advent of conditional money, as representatives of the universal real commodity, an opportunity is created for complete detachment of the value of the commodity from its material carrier, possessing specific consumer properties, independent movement and distribution. Thus, in the conditions of the developed commodity-money relations, all economic relations on the occasion of the exchange and distribution of the aggregate social product are realized in the form of monetary relations.

Financial assets, as an objective economic category, have two main functions - distributionstimulating and control.

The distribution-stimulating function derives from the nature of the financial assets and consists in the fact that in the functioning of the financial relations there is a direct movement of values, ensuring the realization of the objective laws of income distribution and at the same time an effective stimulating effect on the activity of the various financial entities.

First, through financial relations, the sequence of income distribution of special-purpose funds is realized. The experience of economic activity in the conditions of commodity-money relations shows that before proceeding to the distribution of income for individual consumption, society is

obliged with the help of financial mechanisms to create funds for expansion of production, reserve insurance, to support management. , for education, for healthcare, for social protection, for defense, etc.

Second, with the help of financial assets, the realization of the regularities of the quantitative ratios between the funds formed in the distribution of income is ensured. This means that in the distribution of income it is important not only the sequence of separation of their individual parts, but also compliance with the necessary proportions between them. Errors and omissions in the laws of proportional distribution of income at each stage of social development can also lead to negative consequences in the development of the country.

Third, financial relations are obliged to ensure the realization of the optimal combination of different interests in society (national, regional, group, departmental, private, personal) and thus create incentives for effective business. Ignoring some interests in favor of others, the lack of scientific approaches in studying their development inevitably leads to social conflicts and low economic efficiency.

The control function of finance is closely related to the distribution-stimulating one. This is due to the objective nature of financial relations and at the same time to their subjective organization by the state.

The objective nature of financial relations does not mean that they are formed spontaneously, without the intervention of the governing entity - the state. Conversely, the state on the basis of knowledge of the objective laws of income distribution and the summarized results of practice develops the strategy and tactics for the use of financial assets and on this basis gives financial relations subjective forms, determines the methods for their implementation. Therefore, the subjective activity in the field of creating forms of financial relations can lead to various consequences in the country's economy. As a result, regardless of the will and desire of the governing bodies that created the forms of financial relations, positive or negative consequences will appear in the financial environment.

This shows that finance, by virtue of its objectivity and subordination to economic laws, has an inherent control function. The control function of finance is their ability to show the consequences for the economy in the subjective organization of the forms of financial relations and thus to signal

their compliance or non-compliance with the objectively necessary financial relations at a given stage of development of society.

The disclosure and realization of the functions of finance as an objective category is of great practical importance, because without knowing what financial laws for the distribution of national income need to be realized with the help of subjectively established forms of financial relations, it is impossible to create a financial mechanism capable of ensuring efficient economic activity. Moreover, in our opinion, it can happen that subjective institutions, not having a complete idea of the functions of finance as a distributive category, begin to construct forms of financial relations that are absolutely inadequate at a given stage of social development. The result of such actions is always negative for the economy, regardless of the wishes and expectations of the governing entities.

The signaling of the society for conformity or non-conformity of the forms of financial relations to the objectively necessary types of financial relations is done through certain indicators. But the data of financial indicators are purely subjective constructions and therefore they can give both real and unreal picture of the consequences caused by the developed and applied forms of financial relations. When the indicators do not reflect the real picture of the consequences caused by the application of the developed forms of financial relations, then such a fact creates a distorted information base, based on which it is impossible to draw reliable conclusions about the effectiveness of functioning forms of financial relations. That is why an objective approach is needed in the construction of the financial indicators themselves.

The specific universal forms of existence and functioning of finance are manifested through such categories as income, expenses, taxes, payments, deductions, accumulation of funds, budget formation and budget financing, investment, financial assistance, etc., characterizing the most diverse types cash flows. The interrelation of these categories at state and interstate level, at the levels of different economic entities, of legal entities and individuals express the essence of finance and financial processes.

Finance, in its essence, accumulates, in the end, three characteristic qualities or, more precisely, manifests itself in three different planes.

# CHAPTER THREE. ANALYSIS OF THE FUNCTIONS AND INSTRUMENTS OF THE FINANCIAL MARKETS

Financial management as a management of financial assets has the ultimate goal of satisfying the interests of all parties involved in their implementation. Subjects of these financial assets are financial donors and recipients. The former have the opportunity and desire to provide financial resources, and the latter - to dispose of them. The functioning of financial assets is realized with the help of the organizational-instrumental triad: markets, institutions, instruments. Proposals for investment and financing, search and pooling of donors and recipients are concentrated on the markets. The search for and unification of financial donors and recipients is done with the help of financial institutions operating professionally in the financial markets. The practical implementation of the proposals of financial and investment nature, ie. the transfer of financial assets from donors to recipients is carried out with the help of market instruments, allowing to most effectively meet the objectives of specific entities in these operations.

The activities of the majority of financial entities are closely related to the variety of financial markets, each of which is an organized or informal system for trading in financial assets and instruments. In these markets there is an exchange of money and their equivalents, granting loans, mobilizing capital and more. In these operations, the main role is played by the financial institutions, directing the flows of financial assets from the owners to the recipients. It is customary to distinguish several main types of financial markets: foreign exchange market, money market, gold market, stock market.

The Forex Market handles foreign exchange transactions. The main subjects in this market are banks and other credit and financial institutions. Assets with a maturity of no more than one year are traded on the Money Market. The Gold Market works with large gold deals, including standard gold bars. The main volume of physical gold transactions is carried out between banks and specialized companies. Gold futures and options trading are concentrated on futures exchanges. The Capital Market accumulates and transfers long-term capital and debt. It is the main type of financial market in the conditions of market relations, with the help of which the companies look for sources for financing their activity. An important segment of the capital market is the market of capital financial assets, which are related to equity and debt securities. The capital financial assets market functions as primary and secondary. The primary securities market serves the issuance and primary placement of equity and debt securities. In this market, companies receive the financial resources they need by selling their securities. The company's entry into this market is possible only if it is included in the listing of the exchange. This, in turn, presupposes the fulfillment of a number of conditions regarding the number of shares in circulation, the level of capitalization, the level of profit, etc. The secondary market functions as a turnover of already issued equity and debt securities. In this market, companies do not receive financial resources directly, but it is extremely important because it allows investors, if necessary, to receive both monetary assets invested in securities and income from operations with them. The possibility of resale of securities is based on the freedom and the right of their holder to dispose of them at its discretion. The existence of the secondary market in itself stimulates the activity of the primary market.

The share and debt securities of the companies appear as instruments for attracting capital on a long-term basis. In addition, there are operations not only of a fund nature (ie on a long-term basis) but also of a short-term nature, in particular to generate speculative income. Securities markets (as a generalized concept for the markets of capital financial assets and derivative securities - derivatives) in turn function as exchange and over-the-counter, futures and spot operations.

The stock market is a function of stock exchanges. The procedure for participation in the tenders for issuers, investors and intermediaries is determined by the exchanges themselves. The over-thecounter market functions as a turnover of securities that have not gained access to stock exchanges. Securities that have been admitted to official trading on the stock exchange are in circulation on the stock exchange market.

In the spot market, the exchange of assets for cash takes place immediately during the transaction, and in the futures markets, futures contracts are traded, providing for the delivery of underlying assets in the future. The futures market (depending on the type of financial instruments traded on it), in turn, has several segments: forward, futures, options and swaps.

The financial manager is most interested in the securities market, because: first, it carries out the main transactions with securities of companies; second, the placement of the company's securities on this market for investors serves as an indicator of its successful operation; third, the securities market is a major source of additional funding.

The securities market, unlike the markets for goods and services, has a clear specificity, manifested in the presentation to its participants of certain requirements of organizational, legal and professional nature, as well as the regulation on the types of activities in this market. The following people participate in the securities market: issuers of securities - economic entities seeking to obtain additional sources of financing, as well as executive and local authorities issuing loans to cover part of the state and municipal expenditures; holders of securities - persons (individuals and legal entities) with the right of ownership over the securities; professional participants in the securities market - legal entities and individuals registered as entrepreneurs carrying out this type of activity.

The activity of the subjects on the securities market is related to the following types of financial activity:

• brokerage - execution of transactions with securities on behalf of legal entities or individuals on the basis of a contract;

• dealership - execution of securities transactions on its own behalf and for its own account against a commission or a percentage of the transaction;

• management of securities - is carried out by a legal entity or individual entrepreneur on its own behalf against remuneration for trust management of financial assets for a certain period, belonging to another person, in the interest of this person or to third parties designated by him;

• clearing - is a payment activity by mutual repayment of continuously arising counter receivables and payables, without the use of cash, ie. a system of non-cash payment for goods, securities and services, based on respect for mutual claims and obligations;

• depository - activity performed only by legal entities (depositories), for rendering services related to storage of securities certificates and / or reporting and transfer of rights on securities;

• keeping a register of holders of securities - collection, recording, processing, storage and provision of data. It is performed only by legal entities for which it is not allowed to combine this activity with other types of professional activity on the securities market;

• organization of securities trading - provision of services assisting in concluding securities transactions between market participants.

Global experience in regulating financial markets shows the existence of two main approaches -German and American. In the first case, the control is assigned to the central bank and banking supervision, and in the second - to a specially created state body (Securities and Exchange Commission).

In the world practice, according to the nature of its activity, two main types of exchanges are distinguished: closed (for members of the exchange only) and open (accessible for participation of all comers).

The management of many financial transactions is based on securities, which represent the majority of financial assets, liabilities and instruments that are traded on the stock and futures markets. The security as a document certifies (subject to a certain form and mandatory details) property rights, the realization or transfer of which is possible only upon presentation. When a security is transferred to a new owner, all rights certified by it are automatically transferred.

In the total set of securities, the issue securities to which the shares and bonds belong play a particularly important role.

From the positions of identification of their holder, the securities are subdivided into registered and bearer. The issue of registered securities implies that the information about their holders is available to the issuer in the form of a register of holders of securities. The transfer of their rights requires mandatory identification of the new owner. In the case of issues of bearer securities, the transfer of their ownership does not require the identification of the new owner.

The securities are issued in documentary and non-documentary form. In the first case, the holder of the securities shall be established on the basis of a duly executed security certificate or, in the case of a deposit, on the basis of an account entry. In the second case - on the basis of an entry in the system of the kept register of the holders of securities or in case of deposit of securities, on the basis of an entry in an account. In this case, the certificates of securities of a given issue shall be kept for storage in depositories or in the registration journal of the registrar.

Securities in general are subdivided mainly into: government securities; corporate bonds; policies (bills of exchange); savings (deposit) certificates; shares; privatization vouchers (vouchers), etc.

Government securities are issued by the state and are considered the most reliable, as they are inherently secured by all state property. The main reason for the issue of these securities is the desire to cover the state budget deficit without inflation.

Financial instruments are emerging as key concepts in investment activity and especially in the securities market. There are different approaches to the interpretation of the term "financial instruments". Initially, they were classified into three main categories:

- first, as cash;
- second, as credit instruments (bonds, loans, deposits);
- third, as a way to participate in the authorized capital (shares and bonds).

With the development of the capital market, new types of financial assets, liabilities and operations with them appear (forward contracts, futures, options, swaps, etc.). The terminology is becoming more and more precise. There is a need to distinguish own instruments from those objects with which these instruments operate or which underlie one or another instrument, ie. of financial assets and liabilities. In the field of finance, a new direction is formed, called financial engineering, within which a systematic description of traditional and new financial instruments is given. According to one of the leading experts in this field, John Finerty, "financial engineering includes the design, development and use of innovative financial instruments and processes, as well as a creative search for new approaches to solving problems in the field of finance."

The concept of "financial engineering" appeared among financial practitioners in the mid-1980s, when London bankers began to set up risk management departments in their banks. Specialists from these services invented, within the current legislation, special operations with financial assets, allowing to minimize or transfer the risk, and began to be called financial engineers. Later, financial instruments began to be developed in order to obtain higher profits from speculative operations on futures markets, as well as to facilitate operations on capital markets, ie. of operations to mobilize sources of funding.

Within the framework of financial engineering, new instruments are developed or with the help of the existing instruments such combinations are constructed, which allow with the help of financial

methods to solve problems with financing, to increase liquidity, to receive additional income, to reduce risk and so called

#### CHAPTER FOUR. PROBLEMS IN THE FORMATION OF FINANCIAL ASSETS

The emergence of credit institutions is a logical consequence of the development of commoditymoney and financial relations in society and their emergence is associated with the emergence and development of money trading. Banks, representing the most perfect creation of credit institutions, originated in antiquity. The most primitive similarities of banks appear around 3000 BC.

The trade in money naturally arises at a much later stage of the trade in goods, when two essential preconditions determine the trade in money:

• first, when the production acquires a predominantly commodity character, ie. in the transition from natural form to meet the needs of producers to commodity production and commodity-money circulation;

• second, when the use of money as a means of payment and cash as a factor of production and consumption begins to expand.

In the presence of these two prerequisites, the trade in money is separated from the trade in goods in different regions of the world. These acts are differentiated as separate and independent activities performed by different entities. In the beginning, money was traded by so-called moneylenders.

Usury is characterized by the fact that the usurer disposes of his own money, which he gives as a loan against a certain remuneration (interest). In contrast, the seraphim dispose not only of their own but also of borrowed funds. Initially, both traded money around the temples, as people used to gather there. At a later stage, special places are gradually formed, where this trade is more intensively concentrated.

Externally, at first glance, there is little difference between usury and banking, because in both cases a loan is provided at interest. However, comparing the two activities, it is seen that there are fundamental differences and contradictions between them:

First, the moneylenders operate only with their own funds, while the banks operate mainly with borrowed funds;

Second. In usury, lending money is capital for the moneylender, but not capital for the borrower (the borrower), as those who received a usurious loan used it mainly for consumer needs (for food, clothing, etc.). In banking, the opposite is true - banks attract the savings of the population as a monetary resource against deposit interest and provide it as a business loan against credit interest;

Third. For both the moneylender and the seraphim, money trading is not the main activity. They perform other activities through which they acquire funds and provide some of them to those who wish as loans. The opposite is true for banks - to lend money, buy securities and bank is their main activity.

Banks in most cases are joint-stock companies that carry out public attraction of deposits and use the attracted funds to provide loans for investments at their own expense and risk. Banks in their activities are guided solely by their interests.

In carrying out their operations, banks proceed mainly from the two main goals facing them: first, increasing the rate of profit and second, ensuring their liquidity. Even when they take more risk, banks still go out of their way. In this case, their risk is dictated by their interest in establishing themselves on the money market, ie. to gain prestige in the money market. If a bank fears too much risk and refuses to provide certain services, including loans, for fear of losing liquidity, customers will stop looking for it. Another bank will naturally appear in its place or next to it. Therefore, each bank is forced to serve riskier activities.

In their activity, banks perform the following main functions:

- credit intermediation between cash and working capital;
- mediation in payments;
- mobilization of cash incomes and savings and their conversion into capital;
- creation of credit instruments for the needs of the circulation.

Direct lending to entrepreneurship by owners of free cash resources at interest faces a number of contradictions:

• first, the amount of monetary resources offered as capital against interest may not correspond to the amount of demand for monetary capital;

• second, the timing of the release of cash capital for their owners often does not coincide with the time when borrowers need it;

• third, an obstacle to the provision of cash capital directly by its owners may be their lack of awareness of the creditworthiness of the borrower.

Banking credit intermediation overcomes these contradictions in direct lending, as banks mobilize deposits of different amounts and with different maturities and can therefore provide loans to existing entrepreneurs in the required amounts and for the required terms. At the same time, specializing in certain credit operations, banks have the opportunity to well determine the creditworthiness of their customers.

Another function of banks is closely related to credit intermediation - payment intermediation. In the course of their operations, entrepreneurs have to deal with payment functions - to accept money from customers and pay with them, to keep available cash, to keep records of all cash receipts and payments to relevant accounts, etc. n. Acting as an intermediary in payments, banks undertake to perform these operations in the interests of their customers. Entrepreneurs are also interested in bank intermediation in payments, as the concentration of monetary operations and settlements in banks reduces the cost of hiring cashiers, accountants, etc.

A special function of banks is the mobilization of cash income and savings and their conversion into capital assets. Different sections of society receive monetary income, some of which accumulate for future expenditures for a short time or for a longer period. These cash incomes and savings are not capital in themselves, and in the absence of banks and other credit institutions, they would be "dead" wealth. Banks and other credit institutions mobilize these funds in the form of interest-bearing deposits, as a result of which they convert them into borrowed capital. This loan capital is provided to entrepreneurs who use the received bank loans for investments in their enterprises. In this way, diversified income and savings with the help of banks eventually become capital.

Another function of banks is the creation of credit instruments for the needs of circulation in the form of banknotes and checks replacing metallic money.

In a narrower sense, the credit system is seen as a set of banks and other credit and financial institutions that mobilize free monetary resources and income and lend them.

Individual banks can raise funds not only through deposit operations, but also through the issuance of banknotes, ie. money issue. On the basis of this passive operation, banks also emerged under the name "issuance" or "central". Although it performs a number of state functions and is usually called the state bank, central banks are independent institutions, ie. they determine their own financial, organizational, legal and management policy. This independence and status of the central bank is guaranteed by a law which explicitly states that it is not subordinate to the government, but is in essence its partner, consultant and opponent both in current policy and in the development of long-term programs.

The main function of any central bank is the monopoly on the issuance of money and hence the control over money circulation. It controls the payment process between the other banks in the country, regulates and refinances commercial banks through appropriate instruments, conducts the country's exchange rate policy through the exchange rate and regulates the country's balance of payments.

Another function of the central bank is the management of government debt and the financing of the budget deficit. This is done with the help of the following operations: payment of government debts abroad; securities transactions; financing of the state budget.

The central bank can act as a central depository of government securities, in the field of trading in securities on the stock market and beyond.

The change in the level of interest rates has a significant impact on almost all areas of the economy and finance, and in many cases also affects the social sphere.

Assuming that the central bank raises its base (discount) rate, this will reflect on other areas as follows:

- in the banking sector - interest rates on all loans and deposits will increase;

- in production and trade - high interest rates will hinder the activity of less profitable enterprises and the servicing of loans. Some productions will be reduced and the emergence of new productions will be more difficult. There is economic stagnation and unsold inventories will grow; - in the currency area - high interest rates will attract capital from abroad. The demand for local currency and the supply of foreign currency will increase. As a result, the exchange rate of the local currency rises;

- in the field of foreign trade - the increased exchange rate of the local currency will hinder exports and facilitate imports. Because exporters, selling their product abroad for foreign currency, will receive less local currency against it. Importers - vice versa. Against the increased exchange rate of the local currency they will receive larger quantities of foreign currency with which to buy goods. In such a situation, the country's trade balance deteriorates;

- in the area of prices - due to high interest rates the demand for loans decreases and the volume of money supply shrinks. This has an anti-inflationary effect because prices fall due to reduced demand;

- in the field of employment - the reduction of business activity in almost all areas leads to an increase in unemployment;

- in the fiscal sphere - weak business activity reduces tax revenues, which affects budget revenues. Preconditions for a budget deficit are being created.

It can be seen from the above that the interest rate is a powerful tool for influencing the economy and finances of each country, which allows the central bank, in coordination with the Government, to pursue a certain policy.

Another very important tool for influencing economic processes is the required reserves of commercial banks, which are kept in the Central Bank. In essence, they are defined as a percentage of borrowed funds. On the one hand, this is required by the need for the stable functioning of the banking system, and on the other hand, with this percentage the money supply can be regulated. An increase in the reserve requirement rate will lead to a result similar to the increase in the basic (discount) rate.

Along with the mentioned administrative instruments for regulation, the central banks also have the opportunity to conduct the so-called "open market policy". It is expressed in the sale of securities - mainly bonds. In this way, central banks can withdraw money from circulation and return it to circulation when it matures.

#### CONCLUSION

As a result of the analysis of the processes related to modern problems and trends in asset risk management, the doctoral thesis reveals the main elements of its theoretical and applied aspects, the unity and contradictions in the management and security of the financial system, the problems in the accumulation of money. Capital, problems in risk management in financial institutions. Particular attention is paid to the problem of operational risks, the problems of liquidity risk and the risk of insufficient income, the problems of credit risk and market risks.

Solutions for the stress testing procedure and the need for comprehensive monitoring of financial risks are considered and proposed as a major factor for financial stability and security.

In our opinion, the more specific and generalized conclusions refer to **the following more significant problems and solutions:** 

• that the international financial environment is characterized by contradictory, dynamic and difficult to predict changes, creating risks and challenges to financial security, which are so intertwined that hardly anyone could classify them as their traditional division into internal and external, traditional and non-traditional;

• that the construction of the financial security system in Bulgaria is becoming mostly chaotic, through change due to the change itself, through lack of professionalism, with a lack of conceptual thinking, with strong suggestions;

• that any other such system, as well as the Bulgarian system for financial stability and security in theoretical and applied aspect should be assessed in time and space, provoked by the existing geopolitical and geoeconomic challenges;

• that taking into account the global aspects of financial security requires a pragmatic approach to the restructuring geopolitical space, forces and interests, to the growing cross-border nature of information, intellectual property, cash flows, investment, etc .;

• that the emerging financial model in Bulgaria is based on the absolutization of the market and private property and the withdrawal of the state from economic processes, which in many cases is at the expense of financial stability and security, as on a global scale for the first time in history is under the control of the powerful transnational financial capital that sets the rules of the game;

• that the huge growth of financial crimes in Bulgaria is becoming a factor that calls into question financial security;

• that Bulgaria is faced with the need to build a system of financial security in case of a radical change of the mechanisms in accordance with those under which the European system operates;

• that in financial analyzes in many cases the problems caused by the uncertainty factor are ignored and actions are made (decisions are made) on the basis of determined models, ie. the factors influencing decision-making are assumed to be well known;

• that risk management should be built as a system of heuristic approaches to decision-making on financial processes;

• that in risk management due to the specifics, which is conditioned by the special responsibility for taking the risk, it is inexpedient, and in some cases inadmissible, the collective (group) decision-making, for which no one is responsible;

• that awareness of the potential risk is a necessary but not a sufficient condition. It is important, above all, to establish the effect of a given type of risk and what its consequences are;

• that the methods of mathematical game theories, probabilities, mathematical statistics, statistical decision theory, mathematical programming should be used as mathematical tools for decision making in conditions of uncertainty and risk;

• that money as a financial asset is increasingly obsessing society and becoming fundamental to public relations, and with its development monetary instruments are becoming more diverse, changing the form and nature of their movement;

• that understanding the nature of financial assets requires: first, understanding the nature of money and monetary relations; second, the understanding that not all assets and their groups operating in the exchange and distribution of aggregate and newly created product (income) are financial; third, understanding the objectivity of financial assets; fourth, an understanding of the subjectivity of their organizational forms in general;

• that the content of financial assets is always more specific, but also always poorer in terms of their nature, which is less specific, but therefore always deeper, which requires their proper study;

• that at the present stage the development of financial institutions is faced with a number of features that, in our opinion, are manifested in the concentration and centralization of assets and in the transformation of credit into an instrument for capital domination.

• that for the stability of any financial institution, the level of risk related to the level of its main indicators - liquidity and capital adequacy is essential;

• that the recommended parameters for estimating and determining expected asset losses are the final price, or the so-called "LAST price". This indicator should be used for both unit assets (shares) and the trading book of debt assets (bonds);

• that in recent years, in the general approach to risk calculation, one of the first places is the stress testing procedures, through which today in our opinion it is important not so much to calculate the magnitude of one or another risk, as to determine a kind of corridor of risk. the permissible values of the risk.

• that at present the current and future liquidity risk has given way to the most insidious and dangerous type of risk - credit, as financial institutions have learned to calculate and manage liquidity risk, which we believe cannot be said about credit risk.

• that a financial institution, which more often tests the existing risk management system, significantly reduces the main - systemic risk.

In conclusion, it can be concluded more specifically that the forecasting of financial risks is justified to be performed by the method of GAP-analysis, in cases where it is necessary to establish a specific time interval on which the impact of the risk is maximum. The integrated method for estimating the value of the Net Percentage Margin is better applied when it is necessary to establish the relationship between the estimated values of risk and the change in the planned value of the financial result of each asset.

# IV. SCIENTIFIC AND SCIENTIFIC-APPLIED CONTRIBUTIONS IN THE DISSERTATION

The results of the analysis of the dissertation topic allow the formulation of the following scientific and applied scientific aspects:

First. In general, an analysis of a large volume of scientific and theoretical sources of famous authors, including journalistic information, on the dialectical relationship between risk and return on assets, taking into account their inherent contradictions, unity and trends for development and manifestation.

Second. The different approaches in determining the functional nature of asset risk management are analyzed and summarized, taking into account the current views of the business.

Third. A methodology for the organization of the preparation and evaluation of the quality of management decisions and their optimization in the conditions of risk for the financial asset is proposed.

Fourth. The necessity of applying the so-called GAP-analysis as the most appropriate tool for analysis of the potential liquidity risks of the asset is proved. For proponents of a conservative liquidity management policy, it is proposed to compile a report that determines the optimal map for the distribution of liquidity of assets with specific ratios that will redistribute liabilities into assets and help build an optimal, in terms of each financial process, a card for its liquidity.

Fifth. A methodology for determining the internal credit risk of a financial issuer of debt assets is proposed using a detailed assessment of the amount of expected losses using the parametric model VaR, applying the so-called volatility of the parameter over time Estimates of the expected return on the portfolio of assets are made on the basis of the methodology of their weighted average return.

Sixth. A variant of a procedure is proposed for obtaining information on the quality of financial risk management, through a system of questions for their assessment, as a result of these assessments to derive an aggregate indicator for the individual components.

#### V. LIST OF SCIENTIFIC PUBLICATIONS ON THE TOPIC OF THE DISSERTATION

1. Filipovska-Dimitrova, M. General principles of financial risk management. PEPP - Regulation and Technical Standards for Market Realization. Conference Proceedings, VUZF Publishing House. ISBN 978-954-8590-00-6, pp. 154-177

2. Filipovska-Dimitrova, M. Practical approaches for forming a portfolio of financial assets. PEPP
Regulation and Technical Standards for Market Realization. Conference Proceedings, VUZF
Publishing House. ISBN 978-954-8590-00-6, pp. 193-206

3. Filipovska-Dimitrova, M. Credit institutions - emergence, development and current issues. Mr. "Money and Culture", no. 1, 2021, ISSN 2683-0965, under seal

### DECLARATION

by Maria Filipovska-Dimitrova

I declare that my dissertation and publications are my personal work.

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Maria Filipovska-Dimitrova