FEATURES OF THE FINANCIAL ANALYSIS AND DIAGNOSTICS OF BANKRUPTCY IN KAZAKHSTAN

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Abstract

Overcoming the consequences of the global financial crisis was the impetus and justification of the development new scientific approaches to the study of crisis management and economic feasibility recognition of bankruptcy issues. Kazakhstan applied for bankruptcy practice does not meet evidence-based criteria for determining the economic threats and the bankruptcy.

The relevance of research feasibility study recognition of bankruptcy and crisis management issues is the complexity of the application of the existing regulatory framework in terms of objective necessity and actual situation of bankruptcy and insolvency of the subject.

The most common is the phenomenon in the field of small and medium-sized businesses. Since it is the development of small and medium business in Kazakhstan, in accordance with the global trends and experiences of leading economies, it is the most priority strategy, respectively, the development of evidence-based economic conditions and an adequate legal framework is the main condition for the fulfillment of these tasks.

Entrepreneurs requires accurate prediction of possible threats to the financial viability and effect of actions taken, such as loans, forms of taxation, insurance, investment and others. However, they are not able to, and often do not see the need to use a financial analyst services. This function can be performed by an authorized organization or rapid analysis procedure must be clear, accessible, well-articulated and legally approved.

To fulfill these conditions, financial analysis and diagnosis of the threat of bankruptcy to be adapted to local economic conditions and to agree with the existing legislative framework.

In world practice, there are financial analysis techniques developed for specific economies and the specific conditions of time and place. Therefore, applications of them in Kazakhstan requires research on financial reporting materials Kazakh small and medium-sized businesses in different industries and economic sectors.

Predicting financial failure is an urgent problem in the world economy, especially in the advanced countries, and emerged in the second half of the 19th century. The time interval of occurrence of this problem is connected, first of all, the reduction of military production. In this situation, it was necessary to predict bankruptcy and indicators leading to insolvency.

To solve this problem, only resorted to practical observation and analysis. This method does not rule out a clear and correct prediction. Forecasting methodology had been developed a little later, it is associated with the development of information systems.

There are two basic approaches to the prediction of bankruptcy. The first is based on financial data, and includes handling some coefficients: are gaining popularity Altman Z-coefficient (USA), the Taffler's coefficient, (UK), and others, as well as "read a balance sheet" skill. The second comes from data on bankrupt companies and compares them with the corresponding data of the study.

The first approach is certainly effective in predicting bankruptcy, has three significant drawbacks. Firstly, a company experiencing difficulties, in every way delay the publication of its reports, and thus, the specific data can be unavailable for years. Secondly, even if the data, are communicated and they can be "treated creatively". For companies in similar circumstances, seeks to whitewash its activities, sometimes shall communicate to the fraud. It takes a special skill, inherent not even all experienced researchers to isolate arrays doctored data and assess the degree of secrecy. A third difficulty is that some relationships, derived according to the company, may be indicative of insolvency at the time, the other - to provide a basis for conclusions about the stability or even a slight improvement. In such conditions it is difficult to judge the real state affairs.

The second approach is based on a comparison of features already bankrupt companies with those same signs of "suspicious" of the company. Over the past 50 years published many lists of bankrupt companies. Some of them contain a description on tens of indicators. Unfortunately, most of these lists are not arrange the data in order of importance and none is not taking care of the sequence. The attempt to compensate for these disadvantages is the method of scoring (A through Argenti). In contrast to the described "quantitative" approach to the prediction of bankruptcy as an independent, you can select a "qualitative" approach based on the study of certain characteristics inherent in the business, developing towards bankruptcy. If the test of the enterprise is characterized by the presence of such characteristics, it is possible to provide expert advice on the development of adverse trends.

Practice shows that the crisis could take a variety of forms and shapes. It entails an unstable state with equal probability induces both favorable and adverse effects, so the interest in crisis management as a field of scientific knowledge is immense. However, before embarking on the study of existing methods of prediction and forecasting of economic insolvency of the subject, it is necessary to define exactly what is a bankruptcy. In actual practice it is assumed that the concept of crisis and bankruptcy of the organization mean the same thing, in other words, bankruptcy is seen as an extreme manifestation of the crisis. In fact, things are a little different - the organization may threaten the institutional, financial, economic, management crises and among them may be bankruptcy. (Problem Forecasting of Bankruptcy – Bulletin of the KNU, 2015)

In this book, we studied the concept of bankruptcy is treated in the different countries. It was also studied the basic methods of predicting bankruptcy. A special place is occupied by the study of financial control, analysis and audit in bankruptcy at the enterprises of Kazakhstan. The model of Altman on the example of Kazakhstan enterprise.

Abbreviations

ABC	Anderson Boat Company
AFSA	Australian Financial Security Authority
AMR	Average monthly revenue
ANA	Adjusted non-current assets
BAPCPA	Bankruptcy Abuse Prevention and Consumer Protection Act
CA	Current assets
CFA	Course of financial analysis
CLD	Current liabilities of debtor
CPC	Criminal Procedure Code of the Republic of Kazakhstan
CR	Current rate
CVP	Cost-volume-profit
EBIT	Earnings before interest and taxes
EMH	Efficient-market hypothesis
GM	Gross revenue
K	Weighted average cost of liabilities (liabilities) of the enterprise
LA	Liquid assets
LD	Liabilities of debtor
LLD	Long-term liabilities of debtor
LLP	Limited liability partnership
LR	Long-term receivable
MDA	Multiple Discriminant Analysis
NP	Net profit (loss)
NR	Net revenue
OFR	Own funds ratio
OP	Overdue payables
P	The expected profit before taxes

RSR	Restoring solvency ratio
SLR	Solvency loss ratio
SR	Short-term receivables
TA	Total assets (liabilities)
TMLCA	The most liquid current assets
UK	United Kingdom
U.S.	United States
V	Valuation (price) of the enterprise
VAT	Value added tax
WC	Working capital

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1. GENERAL FRAMEWORK OF THE STUDY

1.1. Introduction

In world practice, not for how many centuries used economic mechanisms predictions of bankruptcy and rehabilitation of enterprises on the basis of the restoration of their ability to pay. In Kazakhstan and the CIS countries, these processes have a new sequel to the transition to market mechanisms of the financial and economic activities of enterprises. As the transformation of a planned economic system to a market economy, reformed and methodological basis for the diagnosis of the financial companies. In parallel, improved approaches to the implementation of rehabilitation procedures and legislation.

As a result of the crisis in the global economy and is now part of the competitive enterprises, including small and medium businesses experiencing financial difficulties. The difficulties relate primarily to the payment of bank loans, which creates the risk of bankruptcy, default to investors and counterparties, non-performance of tax liabilities, which has a negative impact on the country's financial system as a whole.

In world practice, there are financial analysis techniques developed for specific economies and the specific conditions of time and place. Therefore, applications of them in Kazakhstan requires research on financial reporting materials Kazakh small and medium-sized businesses in different industries and economic sectors.

Predicting financial failure is an urgent problem in the world economy, especially in the advanced countries, and emerged in the second half of the

19th century. The time interval of occurrence of this problem is connected, first of all, the reduction of military production. In this situation, it was necessary to predict bankruptcy and indicators leading to insolvency.

To solve this problem, only resorted to practical observation and analysis. This method does not rule out a clear and correct prediction. Forecasting methodology had been developed a little later, it is associated with the development of information systems.

The mechanism of bankruptcy in a market economy is a specialized mechanism for debt repayment, is intended to reduce the level of economic risks in the economy and is an important instrument of state regulation of the economy. In practice, the functioning of modern bankruptcy mechanism in Kazakhstan, there are many moments of inconsistency between results and objectives. Upon completion of the bankruptcy proceedings occurs liquidation of the legal form of the entity and write-off of its obligations to the counterparties, and the actions to settle with creditors (the main objective of this mechanism) or restore the debtor's solvency is not carried out. Over the entire period of operation of a modern bankruptcy mechanism are only a few cases to prosecute perpetrators under the bankruptcy proceedings, despite the fact that the well-known are non-trivial cases of intentional bankruptcies stable functioning of organizations.

Practice has shown that the problem of the choice of methodology for study of bankruptcy, is a developing area of research focused on the resolution of emergency situations and their consequences and prevention.

Potential bankruptcy problem is relevant to many Kazakh companies - small and medium-sized businesses and their partners.

The need to improve the controllability of an economic entity presupposes the solution of a number of challenges in the field of production and financial management. In practice, these problems are reduced to the construction of a financial management system that minimizes the costs of forming the cost of production. Opacity, uncertainty and fragmentation of data on financial flows, their timing to involve poor reliability of management information. As a result, there is no such economic entities, not only the system of operational control over the activities of departments, but also difficult choice.

Models of Western scholars and widely enough used successfully all over the world. The main obstacle to their use in modern conditions of Kazakhstan, is the fact that the selection of key indicators and the calculation of weighting factors was carried out on the basis of statistics on bankruptcies in specific countries. Thus, these models do not take into account the specifics of functioning of the enterprises in different countries and the macroeconomic characteristics of these countries.

A significant proportion of research scientists involved in tracing new and adaptation of existing mathematical and instrumental methods for bankruptcy prediction to the specific conditions of the functioning of economic entities, the development of new schemes to overcome bankruptcy and a mechanism to prevent threats in the future.

Not less important is the legal regulation of these relations, due to the increasing number of cases of insolvency (bankruptcy). However, legal regulation should be carried out not only at the appropriate level, but also at the lowest cost. The wording and the procedures prescribed for use in the law of the Republic of Kazakhstan from March 7, 2014 № 176-V

„On Rehabilitation and Bankruptcy", should have a solid analytical justification for the recognition of the bankruptcy of the subject and the feasibility study for the rehabilitation.

Recognition of bankruptcy and related mechanisms of legal and non-legal settlement of debt is one of the foundations of a market economy. This allows owners of capital to resolve the conflict associated with the default of the entity and affects their willingness to invest small and medium-sized businesses, which is crucial in an increasingly innovative and technological development of Kazakhstan's economy.

In this work we were studied the disclosure of the economic substance of the bankruptcy and insolvency statistics in different countries. Also describes the basic methods of financial analysis companies reporting. Legal regulation of bankruptcy proceedings in Kazakhstan. We were also studied basic models and methods for predicting bankruptcy, an analysis by the example of Kazakhstan enterprises.

1.2. Statement of the Problem

High-quality financial analysis and timely financial diagnostics of the enterprise is the key to prevent bankruptcy. Developing a system of indicators that signal the possibility of bankruptcy, taking into account the characteristics of each particular company in Kazakhstan is an important issue in bankruptcy prevention. Studying the possibility of using international experience of bankruptcy prediction, for enterprises of Kazakhstan is also particularly relevant. The aim of this study is to examine the economic substance of the bankruptcy of the concept, the interpretation of the term in the world. Also, the study of theoretical and practical problems with the financial diagnosis of enterprises, the analysis by the example of Kazakhstan companies. The next question to explore in this work is to study the feasibility of financial controls and auditing companies in bankruptcy. Based on the above questions leads to the following sub-questions:

1. the study of the characteristics and fundamentals of financial analysis companies;
2. overview of techniques for the diagnosis of bankruptcy;
3. the ability to implement the financial control in the conditions of bankruptcy;
4. features of audit in bankruptcy.

1.3. Objective of the Study

The subject of research is the process of forecasting the financial stability of the business entity. The object of research is the financial and economic activities of some organizations of Kazakhstan enterprises for the probability of bankruptcy.

1.4. Significance of the Study

Scientific novelty consists in a substantiation of effective teaching approaches to forecasting the bankruptcy of domestic enterprises. The main results of the study are as follows:

- The essence of bankruptcy, taking into account the different interpretations, describing it with the economic and legal points of view.
- Peculiarities of bankruptcy of enterprises in developed countries and in Kazakhstan.
- It proved impossible to use foreign bankruptcy prediction methods for Kazakh companies.
- An estimate of the probability of bankruptcy of Kazakh companies, formulated conclusions about the problems and peculiarities of bankruptcy prediction based on the results obtained.

Practical significance. The practical significance of the study lies in the possibility of application of findings in predicting bankruptcy of Kazakh enterprises.

1.5. Methodology of the Study

Theoretical and methodological basis of the work is the research of foreign and domestic experts in the field devoted to the study of various aspects of the analysis and forecasting of financial stability of economic subjects.

The main idea of the work is based on the basic provisions of the theory of financial analysis, as well as system and process approaches to the study of economic phenomena. To achieve the goals set in the process of the research, we used the following research methods: analysis and synthesis, induction and deduction, situational, systemic and integrated approach, analogy, abstraction, modeling, monitoring, dialectical method, the methods of comparative analysis, data grouping, logical generalization, balance method and the specific tools of the correlation analysis, predictive modeling and the formation of a balanced scorecard, allowing more fully explore certain issues and to ensure the accuracy of the survey results.

1.6. Structure of the Study

The structure of this paper will be organized as follows:

Chapter 1: GENERAL FRAMEWORK OF THE STUDY: This chapter includes an introduction to the study, the research questions, the objectives of study, the significance of study.

Chapter 2: THEORY OF BANKRUPTCY AND FINANCIAL ANALYSIS: This chapter provides a theoretical foundation to this study by presenting relevant literature and state regulation of bankruptcy.

Chapter 3: METHODOLOGYCAL BASIS OF FORECASTING BANKRUPTCY: This chapter is devoted to description of the research approach, sample population, data collection, data analysis instruments and applied research model

Chapter 4: FINANCIAL CONTROLE, ANALYZE, AUDITING BANKRUPTCY PROCEEDINGS: This chapter presents the results of the regression model and an analysis of these results and description of bankruptcy proceedings.

2. THEORY OF BANKRUPTCY AND FINANCIAL ANALYSIS

2.1. The term "bankruptcy" in modern economy

Bankruptcy is a legal status of a person or other entity that cannot repay the debts it owes to creditors. In most jurisdictions, bankruptcy is imposed by a court order, often initiated by the debtor.

Bankruptcy is not the only legal status that an insolvent person or other entity may have, and the term bankruptcy is therefore not a synonym for insolvency. In some countries, including the United Kingdom, bankruptcy is limited to individuals, and other forms of insolvency proceedings (such as liquidation and administration) are applied to companies. In the United States, bankruptcy is applied more broadly to formal insolvency proceedings. In France, the cognate French word banqueroute is used solely for cases of fraudulent bankruptcy, whereas the term faillite (cognate of "failure") is used for bankruptcy in accordance with the law (Larousse, 2013).

Bankruptcy - is determined by the authorized body of the financial insolvency of the enterprise, not its ability to cover all the claims of creditors. Under the requirements of the creditors understand about the current and long-term liabilities to creditors and government agencies.

The inability to repay the creditors' claims may be due to the fact that they exceed the value of the debtor's available assets. But the possibility of a situation in which the debtor has substantial assets, but at the time of the request has no cash. In other words, in possession of the property illiquid and it may not be used for payment of the request.

The crisis - a sharpening of the contradictions in the socio-economic system (organization), threatening its viability in the environment.

The essence of the crisis in terms of a particular economy can be defined as follows:

- crisis - a mismatch in the activities of the individual management systems (economic, financial, social, etc.).
- crisis - is insolvent, it is increasing the danger of bankruptcy and liquidation of the organization.

The concept of crisis is closely connected with the nature and activities of the organization. So, in modern literature, the term "organization" is considered as a group of people who are consciously coordinated activities to achieve a common purpose or purposes; public as a separate cell in the general system of social division of labor. As an organization can be considered: the individual firm, bank, company, enterprise, institution of education.

To understand the nature of the crisis and it is necessary to consider the nature of the two tendencies of the organization: the operation and development.

The operation - is the maintenance of the organization of life, the preservation of its integrity, quality certainty, the essential characteristics.

Development - is the acquisition of new quality organization, strengthens its resilience in a changing environment.

The functioning and development of interconnected, reflect the dialectical unity of the major trends in the socio-economic system.

The functioning of the organization implies the obligatory presence of the object of labor, means of labor and the person performing career. The functioning of the organization is possible only at a certain line of production factors, and the result should meet the interests and needs of man.

The development is characterized changes in the object, the means of labor, and in man. The criterion for these changes is the increase in labor productivity, the emergence of new technologies, increase production efficiency.

Communication operation and development of a dialectical nature. Operation constrains development. The development destroys the functioning of many processes, but it creates the conditions for more sustainable functioning of the organization in the long term. That is, there is a cyclic trend of development, which reflects the periodic onset of the crisis.

Thus, the crisis is caused not only subjective, but also objective reasons, the very nature of the organization.

Crises may also occur in the very functioning of the processes. This may be, for example, the contradictions between the prior art and skilled personnel, among technologies and conditions of use.

The concept of crisis is closely linked to the concept of socio-economic system that can show the ability of its existence in two ways. This operation (preserving their particular functions in order to maintain integrity) and development (acquisition of new properties and functions in a changing environment). The relationship of these two trends is the dialectical nature: control operation has reached stabilization while retaining the character and development of the organization management is innovative, breaking the process reached the level of functioning.

Economic science distinguishes four levels of the economy - micro, macro, meso and global levels.

The micro level of the economy - is the level of the individual enterprise (or organization) in the sphere of material production and in the field of intellectual and information activities, which is often referred to as non-productive sphere, which is hardly justified. Mechanical sum larger or smaller number of enterprises in the region, the industry in general, the country does not mean entering the higher levels of the economy. To do this, companies must be somehow structured in systems of various kinds, the same way as all the car parts fall short of the machine on which you can ride.

Meso level economy - a level of interbranch economic relations of enterprises and organizations of various spheres and activities. Such communication is often called horizontal because they are carried out between enterprises and organizations that are on the same level relative to each other. Relations between the structures of different levels, called vertical bind 'together different levels of the economy.

Macro level of the economy - is the level of the national economy as a whole, not acting as a mechanical sum of enterprises and organizations, as well as a single structural body.

Global economy level - is the level of the world economy, including the national economies of the world, in more or less integrated into the global market. Currently, the economic situation of individual countries depends significantly on the impact of the global economy as a whole. Accordingly, to consider separately the economic situation in which whatever country, including Kazakhstan, is meaningless.

The economic development of the accident or naturally, at all levels of the economy periodically have various kinds of crisis, diagnosis, prevention and overcoming of which are the subject of crisis management. By themselves, these phenomena together with the surrounding conditions are the subject of crisis management.

All of the economic crisis can be characterized as follows:

1. Breadth of coverage:
   a. separate (or individual);
   b. local (or group covering only a part or a group of phenomena, processes, business entities);
   c. systemic, affecting the entire economic organism as a whole.
2. As the economy levels:
   a. micro;
   b. meso;
   c. macro;
   d. world.
3. For reasons of occurrence:
   a. random;
   b. legitimate;
   c. cyclic, from among of regular (at the micro level cyclic crises arise, in accordance with the life cycle of the process of reproduction in the enterprise;

4. By the force of the impact:
   a. painful;
   b. destructive;
   c. catastrophic.
5. When the exposure time:
   a. short-term;
   b. the average duration;
   c. the long-term.
6. Resources:
   a. internal;
   b. external;
   c. mixed (from internal and external sources);
   d. natural (except themselves);
   e. artificial (deliberately created by certain forces to weaken the competitor and the appropriation of its resources);
   f. mixed (from natural and artificial).
7. Whenever possible, address:
   a. bridgeable by internal forces;
   b. surmountable with the outside by means of external forces or under external influence;
   c. irresistible.

Every economic crisis is always individual-specific. At the same time, all the economic crises are present in more or less common.

The most typical feature of the possible economic crises at all levels of management is the lack of resources for effective implementation of the objective functions of the enterprise, corporations, national economy on the scale of a country or the world at large.

If the organizational and management activities not included in the number of economic resources, then the common cause of all of the economic crisis should be sought in the failure of a particular resource or flaws in organizational and management activities and combining the use of available resources.

According to the thesis of the main types of crises in the economy.

Type A - the current set of real resources is not sufficient to achieve the target installation. Depending on the nature and level of the objective resource adequacy criterion varies. For example, one thing - the internal resources to ensure that the products of the country at the level of the minimum physiological needs of the population, and quite another - to provide it according to the norms of a balanced diet, and the third - to fully meet mass market demand with a high level of solvency with the need for all sorts of delicacies. The level of food security of the country will also be evaluated with respect to different target systems mentioned above.

The existing set of real resources in the country can be considered as sufficient or insufficient, depending on the purpose of use, such as creation and development of energy self-sufficient for the maintenance of the country's economic potential as a whole or only the transport network, communication system.

Type B - financial resources are insufficient for the implementation of certain functions necessary to achieve certain goals.

Type C - revenues are not sufficient to finance the necessary production costs and the payment of debts.

Type D - returns to the set of real resources is their most narrow link, all applied over the resources in their particular set is a useless waste. For example, during the year the country smelted 1 million tons of steel for the production of tractors. In tractor construction, due to the pursuit of the achievement of the gross value indicators in the unnecessary use of expensive metal incorporated the planned economy, equal to half the weight of the tractor. A quarter of idle tractors produced in some regions of the country due to lack of spare parts and a quarter in other regions - due to lack of tractor. As a result of 1 million tons of steel consumed in the production of tractors, useful to use only 250 thousand. Tonnes, only one quarter Except for conditional rounding has been done for illustrative purposes, it is precisely such a situation took place in the economy, and in the production of not only tractors, but also other products. In particular, if one-third of the crop was lost during storage and transportation, the production of a useful income in the agricultural sector of the country was only two-thirds. If it were not for these losses and production would fall by one-third, the end result for consumers of agricultural products would be the same.

Type E - imbalance of income and expenses over time. For example, businesses often enough revenue to cover their costs and pay debts, but often have to make financial costs much sooner than they can do the income. If the company will receive a loan at a reasonable interest or his debts will be distributed, it will overcome the crisis.

Since the company is a key element of the economy (in terms of creating real value - the production of goods and services), the economic crisis manifested primarily at the enterprise level.

However, the role of the meso, macro, global economy levels protruding in relation to a single enterprise in the form of its external relations with the surrounding economic environment is predetermining. Indeed, if we consider the process of production on a separate enterprise, we will see that all factors (tools, machines, equipment, raw materials, the results of scientific research and experimental design works, the labor force in view of its development), with a few exceptions, were established outside the enterprise. It was formed at higher levels of the economy. If you look at the "output" of the enterprise production, which is represented by the effective demand for its products, it appears that this demand is also predestined to higher levels of the economy. Of course, all values are created directly on the plants, but the secret is that not only individual enterprises and enterprises that interact with each other and form on the basis of the interaction of various structures on the meso, macro, global levels of the economy.

In principle, the development of one or another economic reality occurs through structuring. This same pattern is evident in the development of the noosphere, the biosphere, even in the physical world.

Recently, it was found that our universe is not a shapeless heap of galaxies and forms a regular shape crystal. Sun turned a giant computer, the processing plasma in process unimaginable amount of information, and a variety of quality levels. Once the solar radiation were translated by computer into sounds; turned out a magnificent symphony, in comparison with which the pale best works of famous composers. It turns out, in the most simple water stored information, and qualitatively higher level and immeasurably greater volume than on computer disks. Water is also a structured substance.

Talking about the leading role of the meso, macro, global economy levels for individual businesses, it is necessary to bear in mind that they are relative to the target installation can be oriented in two ways:

a. on the actual processes in the production and consumption of products (health orientation);

b. an increase in cash capital (faulty orientation, always leads eventually to a crisis).

Many companies focus on profits, but not all (e.g. defense enterprises and organizations conducting basic research).

If income and an increase in cash capital oriented as the main target the installation higher levels of the economy, it is inevitable a severe economic crisis. For example, a market capitalist economy has failed to recover from a devastating crisis as long as the state does not become in using taxes to redistribute about half of the national income, on the basis of non-market target plants.

Despite the importance of higher levels of economic crisis management as a system of organizational and administrative measures aimed at neutralizing the crisis in the economy, should be centered primarily on the enterprise, which are often observed:

1) financial difficulties;
2) a delay payments;
3) inability to pay for a certain period;

4) partial monetary (financial) insolvency, with all the ensuing legal procedures;
5) bankruptcy (actual full cash insolvency, recorded legally).

Most clearly evident in the crisis of financial companies.

The actual production of the three types of crisis situations can arise:

The first type. The production itself can take place protracted technical and technological crisis with the full financial health of the enterprise. Such a situation arises for technically backward enterprises that occupy a monopoly position in the market and sell their products at inflated prices (e.g. automobile factories of the country during the Soviet period, the economy).

The second type. Highly technically and technologically advanced company, which produces low-cost high-quality products which are in demand in the society, nevertheless gets into financial distress (up to bankruptcy) because of the lack of regulation of monetary, financial, credit relations on the meso and macro levels of economy (typical The situation for the present-day Kazakhstan).

The third type. Real production crisis at the company coincides with the financial crisis, both the crisis reinforce each other, which is also characteristic of modern Kazakhstan.

Insolvent, bankrupt enterprise may be only as a financial entity. Bankrupt enterprise real economy (technical-technological process and its factors) cannot be in principle. It can be anti-efficiency, inefficient, high, normal efficiency.

Anti-efficiency - a situation where the value (price) of the final product of the enterprise is less than the sum of the value (cost) of all factors of production consumed in the production of these products.

Low efficiency - when the value of the final product is only marginally greater than the sum of the values of all the inputs consumed in the production of the product (a measure of the excess of the final product value clearly below the average for the industry or the country's economy as a whole).

High efficiency - when the value of the final product according to the criteria of society sufficiently exceeds the value of all the inputs consumed in the production of these products.

Normal effectiveness - when exceeding the value of the final product over the value of used factors of production corresponds to the level of public acceptance.

Anti-efficiency, low efficiency, the normal efficiency, high performance can be accurately measured only in monetary terms, by comparing the price of the final product and the price of its production costs.

The term "crisis management" emerged relatively recently with the start of the reform of Kazakhstan's economy and the gradual entry of the country into a state of crisis. It is obvious that economic recovery requires a new type of management, radically different from the management carried out in stable conditions.

The worsening crisis in the CIS countries has caused the need for policy-crisis management. This particular type of control is called crisis.

This raises the question of the necessity of crisis management as a practice, science and academic discipline after the release of the country out of the crisis, because, of course, the economic crisis, how deep it was, ever will take place.

But the history of the economic development of many countries, and especially the development of the reproductive processes in the socio-economic systems discussed in the previous chapter show that crises are cyclical and are integral features of any development process.

The inevitability and necessity of periods of decline and recovery in the development of different systems exist in any, even the most successful management. And not only the economy, but also all the systems develop in cycles, not only in the expanded reproduction of emerging crises. Therefore, the management of socio-economic system must always be anti-crisis.

Crisis management - is a kind of control in which the development of mechanisms for monitoring and prediction of the crisis, analyze its nature, probability, characteristics, application of methods of reducing the negative effects of the crisis and use its results for the future of more sustainable development.

The possibility of crisis management associated with the art coming out of crisis situations, human activity, which can search for and select the best way out of the crisis, mobilized on the way out of the most difficult and dangerous situations, use the last millennial experience of overcoming crisis, adapt to problematic situations. Also, the possibility of crisis management is defined by knowledge of the cyclical nature of the development of socio-economic systems that allows to anticipate crisis situations, prepare for them. Crisis management need to define development goals.

All the problems of crisis management can be divided into four groups. The first group includes problems recognizing pre-crisis situations.

The second group of crisis management problems linked to the methodological problems of life organization. This group includes a range of issues of financial and economic nature. The problems of crisis management can be represented in the differentiation of control technology (the third group of problems). It contains the most general consideration of the problem of crises, monitoring and development forecasts of socio-economic systems, the problem of development of administrative decisions. The fourth group of problems including conflict management, personnel selection, which is always accompanied by a crisis situation.

Broadly, management is always the subject of human activity. Crisis management is the subject of the impact - the problems and the expected and the real factors of the crisis, i.e., all manifestations of excessive aggregate acute contradictions causing danger extreme manifestations of an exacerbation of the crisis. Any management should include the features of anti-crisis and anti-crisis management mechanism to use as entering a period of crisis development of the organization. Ignoring this situation has significant negative consequences.

The essence of the crisis management determined the following characteristics: crises can be anticipated, expected and cause; crises to some extent, can be accelerated, anticipate, postpone; to the crisis can and must be prepared; Crises can be mitigated; Management in crisis requires different methods, experience and art expertise; crises can be managed; process management solution to the crisis is capable of accelerating these processes and to minimize their consequences.

Depending on the species will vary crisis and its control mechanism.

However, the crisis management system should meet the following characteristics: flexibility and adaptability inherent in matrix management; propensity to strengthening informal control; Control diversification; decentralization of management; improving integration.

Features of processes and crisis management techniques can be expressed as follows: mobility and dynamism in the use of resources, implementation of changes, the implementation of innovative programs; the use of program-target method development and implementation of management decisions; acceleration of the implementation of anti-crisis measures; efficiency evaluation of management decisions and optimize management decisions.

Priority means of crisis management are: motivation, focused on anti-crisis measures; maintaining optimism and confidence among staff, conflict prevention; integrating values of professionalism; development initiatives in solving development problems; corporate, mutually support innovation.

The style of crisis management should be characterized by: professional confidence, tenacity, anti-bureaucratic, research approach, self-organization, responsibility acceptance.

An important element of the crisis management system are its functions.

1. Crisis management functions - is the activities that implement the subject of crisis management and determine its outcome. They answer to a simple question: what should be done to successfully manage all stages of the crisis pas? Pre-crisis management; six functions can be identified management in times of crisis; process management solution to the crisis; stabilization of unstable situations

(software handling); minimization of losses and missed opportunities; timely decision-making.

2. The most important feature of crisis management - the integration of the informal and formal control.
3. For crisis management is of particular importance prospects, the ability to select and build a rational strategy.

There are different strategies for crisis management. The most important are: the prevention of crisis, preparing for his appearance; waiting for the crisis of maturity to overcome it; combating crises, slowing its processes; stabilize the situation through the use of reserves, additional resources; calculated risk; serial bailouts; vision and the creation of conditions to eliminate the consequences of the crisis.

Accordingly, the bankruptcy prediction plays an important role right management, crisis management. Analysis of the financial statements is a direct tool for forecasting. In this case it plays a crucial role right choices of bankruptcy diagnostic techniques. (http://studme.org/, 2015)

2.2. The basic concepts and features of financial diagnostics and analysis of financial statements

The study of financial diagnostics of the enterprise takes a lot of scientists, has been given a lot of definitions, types of financial diagnostics. Basically, under the financial diagnosis to understand analysis of financial statements, analysis of financial performance of the company, calculating coefficients representative. In the future, the results are used to make management decisions or for the timely identification of weaknesses of the company. Also timely financial diagnosis plays an important role in the prevention of bankruptcy, to find internal resources of the enterprise.

Achimescu G. and Verisan C.A. in their article «The Financial Diagnostic – Profitability and Risk» give the following definition of financial diagnosis and distinguish the types of financial diagnostics:

The financial diagnostic calls, especially the study of liquidities, of the financial structure, of the profitability, but also of the other aspects such as the risk, the development of the company and other. With this purpose, the financial analyst should study the financial situations and the aggregation of this ones with general information on economic, fiscal and monetary, legal and economic and those referring to the economic activity of the domain of activity of the entity. A right financial diagnostic can be established by a much boarder approach, including a preliminary study on the environment. The principal objectives of the financial diagnostic are regarding especially the evolution of the risk management, being sometimes restricted to the formulation of opinions on the economic-financial health situation of the company regarding the shareholders, the investors and the business keepers and creditors, the borrowers. Starting from the objectives of the financial diagnostic, we can distinguish three types of financial diagnostic, namely: the financial diagnostic of the shareholders, the financial diagnostic of the leaders of the company and the financial diagnostic of the creditors. (Achimescu, 2011)

The value of timely and correct information, financial analysts, company executives have been studied Fazal, Hasaan: Financial analysts or simply analysts are required to analyse different types of financial information and provide recommendations to their clients or end users. In that sense analysts work as an adviser who advise or recommend appropriate actions that users should take to gain favourable results. In short, many people rely on analysts and their recommendation. Because of this level importance of the work performed by analysts it is always good if we have financial statements analysis framework in order to conduct different types of analysis efficiently and effectively.

According to this framework there are SIX (6) *stages* or *phases* or *steps* which should be followed to conduct financial statement analysis.

All six steps are connected to each other in a series where the outcome of one phase will serve as an input to the next. Each phase has its own crucial importance requiring different tasks to be done in order to initiate next phase properly.

Following are the SIX steps, phases or stages in financial statement analysis framework:

1. **Establish objectives** of financial analysis by defining the purpose and context of financial statements analysis.
2. **Collect data** necessary for financial analysis from different sources.
3. **Process the data** gathered in the second phase which may range from simple sorting and adjustments to preparing common-size financial statements and graphical representation of ratios and trends.
4. **Conduct analysis** on processed data and interpret the results.
5. **Develop recommendations** in the light of inferences drawn from analysis conducted **and report/communicate** them to relevant personnel. This phase is the most critical of all from different perspectives. As it involves many responsibilities on part of the

analysts that he is required to fulfill regarding the recommendations and communication of those recommendations.

6. **Follow up** (Review), if necessary, the information gathered, conclusions reached on the basis of analysis and recommendations made on periodic basis by repeating the all above 5 steps to check whether conclusions reached and recommendations given earlier need any revisions or not on the basis of updated information.[1]

Financial statement analysis[2]

Financial statement analysis involves the identification of the following items for a company's financial statements over a series of reporting periods:

Trends. Create trend lines for key items in the financial statements over multiple time periods, to see how the company is performing. Typical trend lines are for revenues, the gross margin, net profits, cash, accounts receivable, and debt.

*Proportion analysis***.** An array of ratios are available for discerning the relationship between the size of various accounts in the financial statements. For example, you can calculate a company's quick ratio to estimate its ability to pay its immediate liabilities, or its debt to equity ratio to see if it has taken on too much debt. These analyses are frequently between the revenues and expenses listed on the income statement and the assets, liabilities, and equity accounts listed on the balance sheet.

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[1] Hasaan Fazal article «What are the steps in the Financial Statement analysis Framework?» published June 18, 2011

[2] AT Financial Statement Analysis (March 2016)

Financial statement analysis is an exceptionally powerful tool for a variety of users of financial statements, each having different objectives in learning about the financial circumstances of the entity.

There are two key methods for analyzing financial statements. The first method is the use of horizontal and vertical analysis. Horizontal analysis is the comparison of financial information over a series of reporting periods, while vertical analysis is the proportional analysis of a financial statement, where each line item on a financial statement is listed as a percentage of another item. Typically, this means that every line item on an income statement is stated as a percentage of gross sales, while every line item on a balance sheet is stated as a percentage of total assets. Thus, horizontal analysis is the review of the results of multiple time periods, while vertical analysis is the review of the proportion of accounts to each other within a single period.

For a more detailed analysis of the financial statements, in accordance with the principle of continuity of accounting reference used horizontal financial analysis. This type of analysis is used for the following forms of financial statements: balance sheet, income statement.

Horizontal analysis[3]

Horizontal analysis is the comparison of historical financial information over a series of reporting periods, or of the ratios derived from this financial information. The intent is to see if any numbers are unusually high or low in comparison to the information for bracketing periods, which may then trigger a detailed investigation of the reason for the difference. The analysis is most

[3] AT Horizontal Analysis Overview (2015)

commonly a simple grouping of information that is sorted by period, but the numbers in each succeeding period can also be expressed as a percentage of the amount in the baseline year, with the baseline amount being listed as 100%.

A common problem with horizontal analysis is that the aggregation of information in the financial statements may have changed over time, due to ongoing changes in the chart of accounts, so that revenues, expenses, assets, or liabilities may shift between different accounts and therefore appear to cause variances when comparing account balances from one period to the next.

When conducting a horizontal analysis, it is useful to conduct the analysis for all of the financial statements at the same time, so that you can see the complete impact of operational results on a company's financial condition over the review period. For example, in the two examples below, the income statement analysis shows a company having an excellent second year, but the related balance sheet analysis shows that it is having trouble funding growth, given the decline in cash, increase in accounts payable, and increase in debt.

Horizontal Analysis of the Income Statement. Horizontal analysis of the income statement is usually in a two-year format, such as the one shown below, with a variance also shown that states the difference between the two years for each line item. An alternative format is to simply add as many years as will fit on the page, without showing a variance, so that you can see general changes by account over multiple years. A third format is to include a vertical analysis of each year in the report, so that each year shows expenses as a percentage of the total revenue in that year.

Table 2-1 Horizontal analysis of the Income Statement

	20X1	20X2	Variance
Sales	$1,000,000	$1,500,000	$500,000
Cost of goods sold	400,000	600,000	(200,000)
Gross margin	600,000	900,000	300,000
Salaries and wages	250,000	375,000	(125,000)
Office rent	50,000	80,000	(30,000)
Supplies	10,000	20,000	(10,000)
Utilities	20,000	30,000	(10,000)
Other expenses	90,000	110,000	(20,000)
Total expenses	420,000	615,000	(195,000)
Net profit	$180,000	$285,000	$105,000

Source: AT Horizontal Analysis Overview, 2015

Horizontal Analysis of the Balance Sheet

Horizontal analysis of the balance sheet is also usually in a two-year format, such as the one shown below, with a variance showing the difference between the two years for each line item. An alternative format is to add as many years as will fit on the page, without showing a variance, so that you can see general changes by account over multiple years. A less-used format is to include a vertical analysis of each year in the report, so that each year shows each line item as a percentage of the total assets in that year.

Table 2-2 Horizontal Analysis of the Balance Sheet

	20X1	20X2	Variance
Cash	$100,000	80,000	$(20,000)
Accounts receivable	350,000	525,000	175,000
Inventory	150,000	275,000	125,000
Total current assets	600,000	880,000	280,000
Fixed assets	400,000	800,000	400,000
Total assets	**$1,000,000**	**$1,680,000**	**$680,000**
Accounts payable	$180,000	$300,000	$120,000
Accrued liabilities	70,000	120,000	50,000
Total current liabilities	250,000	420,000	170,000
Notes payable	300,000	525,000	225,000
Total liabilities	550,000	945,000	395,000
Capital stock	200,000	200,000	0
Retained earnings	250,000	535,000	285,000
Total equity	450,000	735,000	285,000
Total liabilities and equity	**$1,000,000**	**$1,680,000**	**$680,000**

Source: AT Horizontal Analysis Overview, 2015

Horizontal analysis can be misused to report skewed findings. This can happen when the analyst modifies the number of comparison periods used to make the results appear unusually good or bad. For example, the current period's profits may appear excellent when only compared with those of the previous month, but are actually quite poor when compared to the results for the same month in the preceding year. Consistent use of comparison periods can mitigate this problem.

To determine the percentage of certain of the financial statements of a vertical analysis of financial statements.

Vertical analysis[4]

Vertical analysis is the proportional analysis of a financial statement, where each line item on a financial statement is listed as a percentage of another item. Typically, this means that every line item on an income statement is stated as a percentage of gross sales, while every line item on a balance sheet is stated as a percentage of total assets.

The most common use of vertical analysis is within a financial statement for a single time period, so that one can see the relative proportions of account balances. Vertical analysis is also useful for timeline analysis, to see relative changes in accounts over time, such as on a comparative basis over a five-year period. For example, if the cost of goods sold has a history of being 40% of sales in each of the past four years, then a new percentage of 48% would be a cause for alarm.

Vertical Analysis of the Income Statement

The most common use of vertical analysis in an income statement is to show the various expense line items as a percentage of sales, though it can also be used to show the percentage of different revenue line items that make up total

[4] AT Vertical Analysis (2015)

sales. An example of vertical analysis for an income statement is shown in the far right column of the following condensed income statement.

Table 2-3 Vertical Analysis of the Income Statement

	$ Totals	**Percent**
Sales	$1,000,000	100%
Cost of goods sold	400,000	40%
Gross margin	600,000	60%
Salaries and wages	250,000	25%
Office rent	50,000	5%
Supplies	10,000	1%
Utilities	20,000	2%
Other expenses	90,000	9%
Total expenses	420,000	42%
Net profit	180,000	18%

Source: AT Vertical Analysis, 2015

The information provided by this income statement format is useful not only for spotting spikes in expenses, but also for determining which expenses are so small that they may not be worthy of much management attention.

Vertical Analysis of the Balance Sheet

The central issue when creating a vertical analysis of a balance sheet is what to use as the denominator in the percentage calculation. The usual denominator is the asset total, but one can also use the total of all liabilities when calculating all liability line item percentages, and the total of all equity accounts when calculating all equity line item percentages. An example of vertical analysis for a balance sheet is shown in the far right column of the following condensed balance sheet:

Table 2-4 Vertical Analysis of the Balance Sheet

	$ Totals	**Percent**
Cash	$100,000	10%
Accounts receivable	350,000	35%
Inventory	150,000	15%
Total current assets	600,000	60%
Fixed assets	400,000	40%
Total assets	**$1,000,000**	**100%**
Accounts payable	$180,000	18%
Accrued liabilities	70,000	7%
Total current liabilities	250,000	25%
Notes payable	300,000	30%
Total liabilities	550,000	55%
Capital stock	200,000	20%
Retained earnings	250,000	25%
Total equity	450,000	45%
Total liabilities and equity	**$1,000,000**	**100%**

Source: AT Vertical Analysis, 2015

The information provided by this balance sheet format is useful for noting changes in a company's investment in working capital and fixed assets over time, which may indicate an altered business model that requires a different amount of ongoing funding.

The second method for analyzing financial statements is the use of many kinds of ratios. You use ratios to calculate the relative size of one number in relation to another. After you calculate a ratio, you can then compare it to the same ratio calculated for a prior period, or that is based on an industry average, to see if the company is performing in accordance with expectations. In a typical financial statement analysis, most ratios will be within expectations, while a small number will flag potential problems that will attract the attention of the reviewer.

In addition to the vertical and horizontal analysis of financial statements for the financial diagnostics of the enterprise is widely used system of coefficients. The estimated coefficients of the system can be divided into two main groups of factors: liquidity ratios and coverage ratios. The estimated coefficients are determined on the basis of balance sheet data. Next, will be discussed in more detail on the calculation examples of various factors.

The cash coverage ratio[5]

The cash coverage ratio is useful for determining the amount of cash available to pay for a borrower's interest expense, and is expressed as a ratio of the cash available to the amount of interest to be paid. To show a sufficient ability to pay, the ratio should be substantially greater than 1:1.

To calculate the cash coverage ratio, take the earnings before interest and taxes (EBIT) from the income statement, add back to it all non-cash expenses

[5] AT Cash Coverage Ratio (2015)

included in EBIT (such as depreciation and amortization), and divide by the interest expense. The formula is:

$$\frac{\text{Earnings Before Interest and Taxes } + \text{ Non} - \text{Cash Expenses}}{\text{Interest Expense}}$$

For example, the controller of the Anderson Boat Company (ABC) is concerned that the company has recently taken on a great deal of debt to pay for a leveraged buyout, and wants to ensure that there is enough cash to pay for its new interest burden. The company is generating earnings before interest and taxes of $1,200,000 and it records annual depreciation of $800,000. ABC is scheduled to pay $1,500,000 in interest expenses in the coming year. Based on this information, ABC has the following cash coverage ratio:

$$\frac{\$1{,}200{,}000 \text{ EBIT } + \text{ } \$800{,}000 \text{ Depreciation}}{\$1{,}500{,}000 \text{ Interest Expense}} = 1.33 \text{ cash coverage ratio}$$

The calculation reveals that ABC can pay for its interest expense, but has very little cash left for any other payments.

There may be a number of additional non-cash items to subtract in the numerator of the formula. For example, there may have been substantial charges in a period to increase reserves for sales allowances, product returns, bad debts, or inventory obsolescence. If these non-cash items are substantial, be sure to include them in the calculation. Also the interest expense in the denominator should only include the actual interest expense to be paid - if there is a premium or discount to the amount being paid, it is not a cash payment, and so should not be included in the denominator.

Current ratio[6]

The current ratio measures the ability of an organization to pay its bills in the near-term. The ratio is used by analysts to determine whether they should invest in or lend money to an entity.

To calculate the current ratio, divide the total of all current assets by the total of all current liabilities. The formula is:

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

For example, a supplier wants to learn about the financial condition of Lowry Locomotion. The supplier calculates the current ratio of Lowry for the past three years:

Table 2-5 Calculates the current ratio

	Year 1	**Year 2**	**Year 3**
Current assets	$8,000,000	$16,400,000	$23,400,000
Current liabilities	$4,000,000	$9,650,000	$18,000,000
Current ratio	2:1	1.7:1	1.3:1

Source: AT, Current ratio, 2015

The sudden rise in current assets over the past two years indicates that Lowry has undergone a rapid expansion of its operations. Of particular concern is the increase in accounts payable in Year 3, which indicates a rapidly deteriorating ability to pay suppliers. Based on this information, the supplier elects to restrict the extension of credit to Lowry.

[6] AT Current ratio (2015)

Since the ratio is current assets divided by current liabilities, the ratio essentially implies that current liabilities can be liquidated to pay for current assets. A current ratio of 2:1 is preferred, with a lower proportion indicating a reduced ability to pay in a timely manner.

The current ratio can yield misleading results under the following circumstances:

Inventory component. When the current assets figure includes a large proportion of inventory assets, since these assets can be difficult to liquidate. This can be a particular problem if management is using aggressive accounting techniques to apply an unusually large amount of overhead costs to inventory, which further inflates the recorded amount of inventory.

Paying from debt. When a company is drawing upon its line of credit to pay bills as they come due, which means that the cash balance is near zero. In this case, the current ratio could be fairly low, and yet the presence of a line of credit still allows the business to pay in a timely manner. In this situation, the organization should make its creditors aware of the size of the unused portion of the line of credit, which can be used to pay bills.

Quick ratio[7]

The same as the current ratio, but does not include inventory. The quick ratio matches the most easily liquidated portions of current assets with current liabilities. It is used to evaluate whether a business has sufficient assets that can be converted into cash to pay its bills. The key elements of current assets that are included in the quick ratio are cash, marketable securities, and accounts receivable. Inventory is not included in the ratio, since it can be

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[7] AT Quick ratio formula (2015)

quite difficult to sell off in the short term, and possibly at a loss. Because of the exclusion of inventory from the formula, the quick ratio is a better indicator than the current ratio of the ability of a company to pay its immediate obligations.

To calculate the quick ratio, summarize cash, marketable securities and trade receivables, and divide by current liabilities. Do not include in the numerator any excessively old receivables that are not likely to be paid. The formula is:

$$\frac{\text{Cash} + \text{Marketable securities} + \text{Accounts receivable}}{\text{Current liabilities}}$$

Despite the absence of inventory from the calculation, the quick ratio may still not yield a good view of immediate liquidity, if current liabilities are payable right now, while receipts from receivables are not expected for several more weeks.

The ratio is most useful in manufacturing, retail, and distribution environments where inventory can comprise a large part of current assets. It is particularly useful from the perspective of a potential creditor or lender that wants to see if a credit applicant will be able to pay in a timely manner, if at all.

For example, Rapunzel Hair Products appears to have a respectable current ratio of 4:1. The breakdown of the components ratio are:

Table 2-6 Components of ratio

Account	Amount
Cash	$100,000
Marketable securities	$50,000
Accounts receivable	$420,000
Inventory	$3,430,000
Current liabilities	$1,000,000
Current ratio	4:1
Quick ratio	0.57:1

Source: AT, Quick ratio formula, 2015

The component breakdown reveals that nearly all of Rapunzel's current assets are in the inventory area, where short-term liquidity is questionable. This issue is only visible when the quick ratio is substituted for the current ratio.

Liquidity index[8]

The liquidity index calculates the days required to convert a company's trade receivables and inventory into cash. The index is used to estimate the ability of a business to generate the cash needed to meet current liabilities.

Use the following steps to calculate the liquidity index:

1. Multiply the ending trade receivables balance by the average collection period.
2. Multiply the ending inventory balance by the average inventory liquidation period. This includes the average days to sell inventory and to collect the resulting receivables.

[8] AT Liquidity index (2015)

3. Summarize the first two items and divide by the total of all trade receivables and inventory.

The liquidity index formula is:

$$\frac{(\text{Trade receivables x Days to liquidate}) + (\text{Inventory x Days to liquidate})}{\text{Trade Receivables} + \text{Inventory}}$$

The liquidation days information in the formula is based on historical averages, which may not translate well to the receivables and inventory currently on hand. Actual cash flows may vary substantially around the averages indicated by the formula. Also, if this information is plotted on a trend line, be sure to consistently apply the same averaging method to all periods; otherwise the results may be unreliable. For example, Hassle Corporation's controller wants to understand the ability of the company to convert its receivables and inventory into cash. Hassle has \$400,000 of trade receivables on hand, which can normally be converted to cash within 50 days. Hassle also has \$650,000 of inventory, which can be liquidated in an average of 90 days. When combined with the receivable collection period, this means it takes 140 days to fully liquidate inventory and collect the proceeds. Based on this information, the liquidity index is:

$$\frac{(\$400{,}000 \text{ Receivables x 50 Days to liquidate}) + (\$650{,}000 \text{ Inventory x 140 Days to liquidate})}{\$400{,}000 \text{ Receivables} + \$650{,}000 \text{ Inventory}}$$

$$= 106 \text{ Days to convert assets to cash}$$

The larger proportion of inventory in this calculation tends to skew the number of days well past the liquidation days for trade receivables. In short, Hassle will require a lengthy period to convert several current assets to cash, which may impact its ability to pay bills in the short term.

Accounts payable turnover ratio[9]

Accounts payable turnover is a ratio that measures the speed with which a company pays its suppliers. If the turnover ratio declines from one period to the next, this indicates that the company is paying its suppliers more slowly, and may be an indicator of worsening financial condition.

A change in the turnover ratio can also indicate altered payment terms with suppliers, though this rarely has more than a slight impact on the turnover ratio. If a company is paying its suppliers very quickly, it may mean that the suppliers are demanding very fast payment terms, or that the company is taking advantage of early payment discounts.

To calculate the accounts payable turnover ratio, summarize all purchases from suppliers during the measurement period, and divide by the average amount of accounts payable during that period. The formula is:

$$\frac{\text{Total supplier purchases}}{(\text{Beginning accounts payable} + \text{Ending accounts payable})/2}$$

The formula can be modified to exclude cash payments to suppliers, since the numerator should include only purchases on credit from suppliers. However, the amount of up-front cash payments to suppliers is normally so small that this modification is not necessary. The cash payment exclusion may be necessary if a company has been so late in paying suppliers that they now require cash in advance payments.

For example, the controller of ABC Company wants to determine the company's accounts payable turnover for the past year. In the beginning of this period, the beginning accounts payable balance was $800,000, and the

[9] AT Accounts payable turnover ratio (2015)

ending balance was $884,000. Purchases for the last 12 months were $7,500,000. Based on this information, the controller calculates the accounts payable turnover as:

$$\frac{\$7{,}500{,}000 \text{ Purchases}}{\frac{\$800{,}000 \text{ Beginning payables } + \$884{,}000 \text{ Ending payables}}{2}}$$

$$= \frac{\$7{,}500{,}000 \text{ Purchases}}{\$842{,}000 \text{ Average accounts payable}}$$

$$= 8.9 \text{ Accounts payable turnover}$$

Thus, ABC's accounts payable turned over 8.9 times during the past year. To calculate the accounts payable turnover in days (which shows the average number of days that a payable remains unpaid), the controller divides the 8.9 turns into 365 days, which yields:

365 Days / 8.9 Turns = 41 Days

Companies sometimes measure the accounts payable turnover ratio by only using the cost of goods sold in the numerator. This is incorrect, since there may be a large amount of administrative expenses that should also be included in the numerator. If a company only uses the cost of goods sold in the numerator, this creates an excessively high turnover ratio. An incorrectly high turnover ratio can also be caused if cash-on-delivery payments made to suppliers are included in the ratio, since these payments are outstanding for zero days.

Accounts receivable turnover ratio[10]

Accounts receivable turnover is the number of times per year that a business collects its average accounts receivable. The ratio is intended to evaluate the

[10] AT Accounts receivable turnover ratio (2015)

ability of a company to efficiently issue credit to its customers and collect funds from them in a timely manner. A high turnover ratio indicates a combination of a conservative credit policy and an aggressive collections department, as well as a number of high-quality customers. A low turnover ratio represents an opportunity to collect excessively old accounts receivable that are unnecessarily tying up working capital. Low receivable turnover may be caused by a loose or nonexistent credit policy, an inadequate collections function, and/or a large proportion of customers having financial difficulties. It is also quite likely that a low turnover level indicates an excessive amount of bad debt.

Fixed asset turnover ratio[11]

The fixed asset turnover ratio compares net sales to net fixed assets. A high ratio indicates that a business is:

- Doing an effective job of generating sales with a relatively small amount of fixed assets.
- Outsourcing work to avoid investing in fixed assets.
- Selling off excess fixed asset capacity.

A low ratio indicates that a business:

- Is overinvested in fixed assets.
- Needs to issue new products to revive its sales.
- Has made a large investment in fixed assets, with a time delay before the new assets start generating revenues.
- Has invested in areas that do not increase the capacity of the bottleneck operation, resulting in no additional throughput.

[11] AT Fixed asset turnover ratio (2015)

The concept of the fixed asset turnover ratio is most useful to an outside observer, who wants to know how well a business is employing its assets to generate sales. A corporate insider has access to more detailed information about the usage of specific fixed assets, and so would be less inclined to employ this ratio.

The formula for the ratio is to subtract accumulated depreciation from gross fixed assets, and divide into net annual sales. It may be necessary to obtain an average fixed asset figure, if the amount varies significantly over time. Do not include intangible assets in the denominator, since it can skew the results. The formula is:

$$\frac{\text{Net annual sales}}{\text{Gross fixed asset} - \text{Accumulated depreciation}}$$

For example, ABC Company has gross fixed assets of $5,000,000 and accumulated depreciation of $2,000,000. Sales over the last 12 months totaled $9,000,000. The calculation of ABC's fixed asset turnover ratio is:

$$\frac{\$9{,}000{,}000 \text{ Net sales}}{\$5{,}000{,}000 \text{ Gross fixed assets} - \$2{,}000{,}000 \text{ Accumulated depreciation}}$$
$$= 3.0 \text{ Turnover per year}$$

Here are several cautions regarding the use of this measurement:

- *Industry specific*. The fixed asset turnover ratio is most useful in "heavy industry," such as automobile manufacturing, where a large capital investment is required in order to do business. In other industries, such as software development, the fixed asset investment is so meager that the ratio is not of much use.
- *Accelerated depreciation*. A potential problem with this ratio may arise if a company uses accelerated depreciation, such as the double

declining balance method, since this artificially reduces the amount of net fixed assets in the denominator of the calculation, and makes turnover appear higher than it really should be.

- *Re-investment impact*. Ongoing depreciation will inevitably reduce the amount of the denominator, so the turnover ratio will rise over time, unless the company is investing an equivalent amount in new fixed assets to replace older ones. Thus, a business whose management team deliberately decides not to re-invest in its fixed assets will experience a gradual improvement in its fixed asset ratio for a period of time, after which its decrepit asset base will be unable to manufacture goods in an efficient manner.

Inventory turnover ratio[12]

The inventory turnover formula measures the rate at which inventory is used over a measurement period. One can use the formula to see if a business has an excessive inventory investment in comparison to its sales level, which can indicate either unexpectedly low sales or poor inventory planning.

The following issues can impact the amount of inventory turnover:

- *Seasonal build*. Inventory may be built up in advance of a seasonal selling season.
- *Obsolescence*. Some portion of the inventory may be out-of-date and so cannot be sold.
- *Cost accounting*. The costing method used, combined with changes in prices paid for inventory, can result in significant swings in the reported amount of inventory.

[12] AT Inventory turnover ratio (2015)

- *Flow method used*. A "pull" system that only manufactures on demand requires much less inventory than a "push" system that manufactures based on estimated demand.
- *Purchasing practices*. The purchasing manager may advocate purchasing in bulk to obtain volume purchase discounts.

Doing so can substantially increase the investment in inventory.

When there is a low rate of inventory turnover, this implies that a business may have a flawed purchasing system that bought too many goods, or that stocks were increased in anticipation of sales that did not occur. In both cases, there is a high risk of inventory aging, in which case it becomes obsolete and has little residual value.

When there is a high rate of inventory turnover, this implies that the purchasing function is tightly managed. However, it may mean that a business does not have the cash reserves to maintain normal inventory levels, and so is turning away prospective sales. The latter scenario is most likely when the amount of debt is unusually high and there are few cash reserves.

To calculate inventory turnover, divide the ending inventory figure into the annualized cost of sales. If the ending inventory figure is not a representative number, then use an average figure instead. The formula is:

$$\frac{\text{Annual cost of goods sold}}{\text{Inventory}}$$

You can also divide the result of the inventory turnover calculation into 365 days to arrive at days of inventory on hand, which may be a more understandable figure. Thus, a turnover rate of 4.0 becomes 91 days of inventory. This is known as the inventory turnover period.

A more refined measurement is to exclude direct labor and overhead from the annual cost of goods sold in the numerator of the formula, thereby concentrating attention on just the cost of materials.

There are several ways in which the inventory turnover figure can be skewed. For example:

- *Cost pools*. The contents of the cost pools from which overhead costs are allocated to inventory may be altered. For example, some items that were charged to expense as incurred are now allocated.
- *Overhead allocation*. The method for allocating overhead to inventory may change, such as from using direct labor hours as the basis of allocation to using machine hours used.
- *Standard costs*. If standard costing is used, the standard cost applied to an inventory item may diverge from its actual cost. For example, the Hegemony Toy Company is reviewing its inventory levels. The related information is \$8,150,000 of cost of goods sold in the past year, and ending inventory of \$1,630,000. Total inventory turnover is calculated as:

$$\frac{\$8{,}150{,}000 \text{ Cost of Goods Sold}}{\$1{,}630{,}000 \text{ Inventory}} = 5 \text{ Turns Per Year}$$

The 5 turns figure is then divided into 365 days to arrive at 73 days of inventory on hand.

Sales to working capital ratio[13]

It usually takes a certain amount of invested cash to maintain sales. There must be an investment in accounts receivable and inventory, against which

[13] AT sales to working capital ratio (2015)

accounts payable are offset. Thus, there is typically a ratio of working capital to sales that remains relatively constant in a business, even as sales levels change.

This relationship can be measured with the sales to working capital ratio, which should be reported on a trend line to more easily spot spikes or dips. A spike in the ratio could be caused by a decision to grant more credit to customers in order to encourage more sales, while a dip could signal the reverse.

A spike might also be triggered by a decision to keep more inventory on hand in order to more easily fulfill customer orders. Such a trend line is an excellent feedback mechanism for showing management the results of its decisions related to working capital.

The sales to working capital ratio is calculated by dividing annualized net sales by average working capital. The formula is:

$$\frac{\text{Annualized net sales}}{\text{Accounts receivable} + \text{Inventory} - \text{Accounts payable}}$$

Management should be cognizant of the problems that can arise if it attempts to alter the outcome of this ratio. For example, tightening credit reduces sales, shrinking inventory may also reduce sales, and lengthening payment terms to suppliers can lead to strained relations with them.

Example of the Sales to Working Capital Ratio: A credit analyst is reviewing the sales to working capital ratio of Milford Sound, which has applied for credit. Milford has been adjusting its inventory levels over the past few quarters, with the intent of doubling inventory turnover from its current level. The results are shown in the following table:

Table 2-7 Results of analysis

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Revenue	$640,000	$620,000	$580,000	$460,000
Accounts Receivable	214,000	206,000	194,000	186,000
Inventory	1,280,000	640,000	640,000	640,000
Accounts Payable	106,000	104,000	96,000	94,000
Total Working Capital	1,388,000	742,000	738,000	732,000
Sales to Working Capital Ratio	1.8:1	3.3:1	3.1:1	3.1:1

Source: AT, sales to working capital ratio, 2015

The table includes a quarterly ratio calculation that is based on annualized sales. The table reveals that Milford achieved its goal of reducing inventory, but at the cost of a significant sales reduction, probably caused by customers turning to competitors who offered a larger selection of inventory.

Working capital turnover ratio[14]

The working capital turnover ratio measures how well a company is utilizing its working capital to support a given level of sales. Working capital is current assets minus current liabilities. A high turnover ratio indicates that management is being extremely efficient in using a firm's short-term assets and liabilities to support sales. Conversely, a low ratio indicates that a business is investing in too many accounts receivable and inventory assets to support its sales, which could eventually lead to an excessive amount of bad debts and obsolete inventory.

To calculate the ratio, divide net sales by working capital (which is current assets minus current liabilities). The calculation is usually made on an annual

[14] AT Working capital turnover ratio (2015)

or trailing 12-month basis, and uses the average working capital during that period. The calculation is:

$$\frac{\text{Net sales}}{(\text{Beginning working capital } + \text{ Ending working capital}) \;/\; 2}$$

Example: ABC Company has $12,000,000 of net sales over the past twelve months, and average working capital during that period of $2,000,000. The calculation of its working capital turnover ratio is:

$$\frac{\$12{,}000{,}000 \text{ Net sales}}{\$2{,}000{,}000 \text{ Average working capital}}$$

$$= 6.0 \text{ Working capital turnover ratio}$$

An extremely high working capital turnover ratio can indicate that a company does not have enough capital to support it sales growth; collapse of the company may be imminent. This is a particularly strong indicator when the accounts payable component of working capital is very high, since it indicates that management cannot pay its bills as they come due for payment.

An excessively high turnover ratio can be spotted by comparing the ratio for a particular business to those reported elsewhere in its industry, to see if the business is reporting outlier results.

Debt to equity ratio[15]

The debt to equity ratio measures the riskiness of a company's financial structure. The ratio reveals the relative proportions of debt and equity financing that a business employs. It is closely monitored by lenders and creditors, since it can provide early warning that an organization is so overwhelmed by debt that it is unable to meet its payment obligations. This

[15] AT Debt to equity ratio (2015)

is also a funding issue. For example, the owners of a business may not want to contribute any more cash to the company, so they acquire more debt to address the cash shortfall. Or, a company may use debt to buy back shares, thereby increasing the return on investment to the remaining shareholders. Whatever the reason for debt usage, the outcome can be catastrophic, if corporate cash flows are not sufficient to make ongoing debt payments. This is a concern to lenders, whose loans may not be paid back. Suppliers are concerned about the ratio for the same reason. A lender can protect its interests by imposing collateral requirements or restrictive covenants; suppliers usually offer credit with less restrictive terms, and so can suffer more if a company is unable to meet its payment obligations to them.

To calculate the debt to equity ratio, simply divide total debt by total equity. In this calculation, the debt figure should include the residual obligation amount of all leases. The formula is:

$$\frac{\text{Long} - \text{term debt} \ + \ \text{Short} - \text{term debt} \ + \ \text{Leases}}{\text{Equity}}$$

For example, New Centurion Corporation has accumulated a significant amount of debt while acquiring several competing providers of Latin text translations. New Centurion's existing debt covenants stipulate that it cannot go beyond a debt to equity ratio of 2:1. Its latest planned acquisition will cost $10 million. New Centurion's current level of equity is $50 million, and its current level of debt is $91 million. Given this information, the proposed acquisition will result in the following debt to equity ratio:

$$\frac{\$91 \text{ Million existing debt} \ + \ \$10 \text{ Million proposed debt}}{\$50 \text{ Million equity}}$$

$$= 2.02{:}\,1 \text{ debt to equity ratio}$$

The ratio exceeds the existing covenant, so New Centurion cannot use this form of financing to complete the proposed acquisition. Though quite useful, the ratio can be misleading in some situations. For example, if the equity of a business includes a large proportion of preferred stock, a significant dividend may be mandated under the terms of the stock agreement, which impacts the amount of residual cash flow available to pay debt. In this case, the preferred stock has characteristics of debt, rather than equity.

Another issue is that the ratio by itself does not state the imminence of debt repayment. It could be in the near future, or so far off that it is not a consideration. In the latter case, a high debt to equity ratio may be less of a concern.

Debt service coverage ratio[16]

The debt service coverage ratio measures the ability of a revenue-producing property to pay for the cost of all related mortgage payments. In essence, it compares cash flows to debt service payments. A positive debt service ratio indicates that a property's cash flows can cover all offsetting loan payments, whereas a negative debt service coverage ratio indicates that the owner must contribute additional funds to pay for the annual loan payments.

A very high debt service coverage ratio gives the property owner a substantial cushion to pay for unexpected or unplanned expenditures related to the property, or if market conditions result in a significant decline in future rental rates.

[16] AT Debt service coverage ratio (2015)

To calculate the ratio, divide the net annual operating income of the property by all annual loan payments for the same property. The formula is:

$$\frac{\text{Net Annual Operating Income}}{\text{Total of Annual Loan Payments}}$$

For example, a rental property generates $400,000 of cash flow per year, and the total annual loan payments of the property are $360,000. This yields a debt service ratio of 1.11, meaning that the property generates 11% more cash than the property owner needs to pay for the annual loan payments.

An issue regarding this ratio is that a negative outcome can result when a property is transitioning to new tenants, so that it is generating sufficient cash by the end of the measurement period, but was not doing so during the beginning or middle of the measurement period. Thus, the metric can yield inaccurate results during transition periods.

Fixed charge coverage[17]

The fixed charge coverage ratio is used to examine the extent to which fixed costs consume the cash flow of a business. The ratio is most commonly applied when a company has incurred a large amount of debt, and must make ongoing interest payments. If the resulting ratio is low, it is a strong indicator that any subsequent drop in the profits of a business may bring about its failure. The ratio is typically used by lenders evaluating an existing or prospective borrower.

To calculate the fixed charge coverage ratio, combine earnings before interest and taxes with any lease expense, and then divide by the combined

[17] AT Fixed charge coverage (2015)

total of interest expense and lease expense. This ratio is intended to show estimated future results, so it is acceptable to drop from the calculation any expenses that are about to expire. The formula is:

$$\frac{(\text{Earnings before interest and taxes}) + \text{Lease expense}}{\text{Interest expense} + \text{Lease expense}}$$

For example, Luminescence Corporation recorded earnings before interest and taxes of $800,000 in the preceding year. The company also recorded $200,000 of lease expense and $50,000 of interest expense. Based on this information, its fixed charge coverage is:

$$\frac{\$800{,}000 \text{ EBIT} + \$200{,}000 \text{ Lease expense}}{\$50{,}000 \text{ Interest expense} + \$200{,}000 \text{ Lease expense}}$$
$$= 4{:}1 \text{ Fixed charge coverage ratio}$$

Profitability ratios[18]

These ratios measure how well a company performs in generating a profit. Click the following links for a thorough review of each ratio.

Breakeven point[19]

The breakeven point is the sales volume at which a business earns exactly no money. The breakeven point is useful in the following situations:

- To determine the amount of remaining capacity after the breakeven point is reached, which tells you the maximum amount of profit that can be generated.
- To determine the impact on profit if automation (a fixed cost) replaces labor (a variable cost).

[18] AT Financial Statement Analysis (2015)

[19] AT Breakeven point (2015)

- To determine the change in profits if product prices are altered.
- To determine the amount of losses that could be sustained if the business suffers a sales downturn.

Management should constantly monitor the breakeven point, particularly in regard to the last item noted, in order to reduce the breakeven point whenever possible. Ways to do this include:

- *Cost analysis*. Continually review all fixed costs, to see if any can be eliminated. Also review variable costs to see if they can be eliminated, since doing so increases margins and reduces the breakeven point.
- *Margin analysis*. Pay close attention to product margins, and push sales of the highest-margin items, to reduce the breakeven point.
- *Outsourcing*. If an activity involves a fixed cost, consider outsourcing it in order to turn it into a per-unit variable cost, which reduces the breakeven point.
- *Pricing*. Reduce or eliminate the use of coupons or other price reductions, since it increases the breakeven point. Also, increase price points whenever this is acceptable to customers.

To calculate the breakeven point, divide total fixed expenses by the contribution margin. Contribution margin is sales minus all variable expenses, divided by sales. The formula is:

$$\frac{\text{Total fixed expenses}}{\text{Contribution margin \%}}$$

A more refined approach is to eliminate all non-cash expenses (such as depreciation) from the numerator, so that the calculation focuses on the breakeven cash flow level.

Another variation on the formula is to focus instead on the number of units that must be sold in order to break even, rather than the sales level in dollars. This can be useful for setting sales targets. This formula is:

$$\frac{\text{Total fixed expenses}}{\text{Average contribution margin per unit}}$$

The management of Ninja Cutlery is interested in buying a competitor that makes ceramic knives. The company's due diligence team wants to know if the competitor's breakeven point is too high to allow for a reasonable profit, and if there are any overhead cost opportunities that may reduce the breakeven point. The following information is available:

Table 2-8 General information

	Before Acquisition
Maximum sales capacity	$5,000,000
Current average sales	4,750,000
Gross margin percentage	35%
Total operating expenses	1,750,000
Breakeven point	$5,000,000
Operating expense reductions	375,000
Revised breakeven level	$3,929,000
Maximum profits with revised breakeven point	$375,000

Source: AT, Breakeven point, 2015

The analysis shows that the competitor has an inordinately high breakeven point that allows for little profit, if any. However, there are several operating expense reductions that can trigger a steep decline in the breakeven point. The management of Ninja Cutlery makes an offer to the owners of the competitor, based on the cash flows that can be gained from the reduced breakeven level.

Contribution margin ratio[20]

The contribution margin ratio is the difference between a company's sales and variable expenses, expressed as a percentage. The total margin generated by an entity represents the total earnings available to pay for fixed expenses and generate a profit. When used on an individual unit sale, the ratio expresses the proportion of profit generated on that specific sale.

The contribution margin should be relatively high, since it must be sufficient to also cover fixed costs and administrative overhead. Also, the measure is useful for determining whether to allow a lower price in special pricing situations. If the contribution margin ratio is excessively low or negative, it would be unwise to continue selling a product at that price point, since the company would have considerable difficulty earning a profit over the long term. However, there are cases where it may be acceptable to sell a package of goods and/or services where individual items within the package have a negative contribution margin, as long as the contribution margin for the entire package is positive.

The contribution margin ratio is also useful for determining the profits that will arise from various sales levels (see the example).

The contribution margin is also useful for determining the impact on profits of changes in sales. In particular, it can be used to estimate the decline in profits if sales drop, and so is a standard tool in the formulation of budgets.

[20] AT Contribution margin ratio (2015)

To calculate the contribution margin ratio, divide the contribution margin by sales. The contribution margin is calculated by subtracting all variable costs from sales. The formula is:

$$\frac{\text{Sales} - \text{Variable expenses}}{\text{Sales}}$$

To calculate the contribution margin that is used in the numerator in the preceding calculation, subtract all variable costs from revenues. For example, the Iverson Drum Company sells drum sets to high schools. In the most recent period, it sold $1,000,000 of drum sets that had related variable costs of $400,000. Iverson had $660,000 of fixed costs during the period, resulting in a loss of $60,000.

Table 2-9 Results

Revenue	$1,000,000
Variable expenses	400,000
Contribution margin	600,000
Fixed expenses	660,000
Net loss	($60,000)

Source: AT, Contribution margin ratio, 2015

Iverson's contribution margin ratio is 60%, so if it wants to break even, it needs to either reduce its fixed expenses by $60,000 or increase its sales by $100,000 (calculated as $60,000 loss divided by 60% contribution margin ratio). A user of the contribution margin ratio should be aware of the following issue. This ratio does not account for the impact of a product on the bottleneck operation of a company. A low contribution margin may be entirely acceptable, as long as it requires little or no processing time by the bottleneck operation. (AT, Contribution margin ratio, 2015)

Gross profit ratio[21]

The gross profit ratio shows the proportion of profits generated by the sale of products or services, before selling and administrative expenses. It is used to examine the ability of a business to create sellable products in a cost-effective manner. The ratio is of some importance, especially when tracked on a trend line, to see if a business can continue to provide products to the marketplace for which customers are willing to pay a reasonable price.

The gross margin ratio can be measured in two ways. One is to combine the costs of direct material, direct labor, and overhead, subtract them from sales, and divide the result by sales. This is the more comprehensive approach. The formula is:

$$\frac{\text{Sales-(Direct materials+Direct Labor+Overhead}}{\text{Sales}}$$

However, this first method includes a number of fixed costs. A more restrictive version of the formula is to only include direct materials, which may be the only truly variable element of the cost of goods sold. The formula then becomes:

$$\frac{\text{Sales} - \text{Direct materials}}{\text{Sales}}$$

The second method presents a more accurate view of the margin gained on each individual sale, irrespective of fixed costs. It is also known as the contribution margin ratio. Gross Profit Ratio Example. Quest Adventure Gear has been suffering declining net profits for several years, so a financial analyst investigates the reason for the change. She discovers that the costs of

[21] AT Gross profit ratio (2015)

direct materials and direct labor has not changed significantly as a percentage of sales. However, she notes that the company opened a new production facility three years ago to accommodate increased sales volumes, but that sales flattened shortly thereafter. The result has been increased factory overhead costs associated with the new facility, without a sufficient amount of offsetting sales.

Based on this analysis, management decides to shutter the new facility, which will result in a 10% decline in sales, but also a 30% increase in gross profit, since so much of the cost of goods sold will be eliminated.

Margin of safety[22]

The margin of safety is the reduction in sales that can occur before the breakeven point of a business is reached. This informs management of the risk of loss to which a business is subjected by changes in sales. The concept is useful when a significant proportion of sales are at risk of decline or elimination, as may be the case when a sales contract is coming to an end. A minimal margin of safety might trigger action to reduce expenses. The opposite situation may also arise, where the margin of safety is so large that a business is well-protected from sales variations.

To calculate the margin of safety, subtract the current breakeven point from sales, and divide by sales. The formula is:

$$\frac{\text{Current Sales Level} - \text{Breakeven Point}}{\text{Current Sales Level}}$$

The amount of this buffer is expressed as a percentage.

[22] AT Margin of safety (2015)

Here are two alternative versions of the margin of safety:

1. *Budget based*. A company may want to project its margin of safety under a budget for a future period. If so, replace the current sales level in the formula with the budgeted sales level.
2. *Unit based*. If you want to translate the margin of safety into the number of units sold, then use the following formula instead (though note that this version works best if a company only sells one product):

$$\frac{\text{Current Sales Level} - \text{Breakeven Point}}{\text{Selling Price Per Unit}}$$

For example, Lowry Locomotion is considering the purchase of new equipment to expand the production capacity of its toy tractor product line. The addition will increase Lowry's operating costs by $100,000 per year, though sales will also be increased. Relevant information is noted in the following table:

Table 2-10 Relevant information

	Before Machinery Purchase	**After Machinery Purchase**
Sales	$4,000,000	$4,200,000
Gross margin percentage	48%	48%
Fixed expenses	$1,800,000	$1,900,000
Breakeven point	$3,750,000	$3,958,000
Profits	$120,000	$116,000
Margin of safety	6.3%	5.8%

Source: AT, Margin of safety, 2015

The table reveals that both the margin of safety and profits worsen slightly as a result of the equipment purchase, so expanding production capacity is probably not a good idea.

The margin of safety concept does not work well when sales are strongly seasonal, since some months will yield catastrophically low results. In such cases, annualize the information in order to integrate all seasonal fluctuations into the outcome. The margin of safety concept is also applied to investing, where it refers to the difference between the intrinsic value of a company's share price and its current market value. An investor wants to see a large variance between the two figures (which is the margin of safety) before buying stock. This implies that there is substantial upside potential for the stock price - or at least, it means any error in deriving the intrinsic value must be a big one in order to erase the margin of safety.

Net profit ratio[23]

The net profit percentage is the ratio of after-tax profits to net sales. It reveals the remaining profit after all costs of production, administration, and financing have been deducted from sales, and income taxes recognized. As such, it is one of the best measures of the overall results of a firm, especially when combined with an evaluation of how well it is using its working capital.

The measure is commonly reported on a trend line, to judge performance over time. It is also used to compare the results of a business with its competitors. Net profit is not an indicator of cash flows, since net profit incorporates a number of non-cash expenses, such as accrued expenses, amortization, and depreciation.

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[23] AT Net profit ratio (2015)

The formula for the net profit ratio is to divide net profit by net sales, and then multiply by 100. The formula is:

(Net profit / Net sales) x 100

The measure could be modified for use by a nonprofit entity, if the change in net assets were to be used in the formula instead of net profit.

For example, the Ottoman Tile Company has $1,000,000 of sales in its most recent month, as well as sales returns of $40,000, a cost of goods sold (CGS) of $550,000, and administrative expenses of $360,000. The income tax rate is 35%. The calculation of its net profit percentage is:

$1,000,000 Sales - $40,000 Sales returns = $960,000 Net sales

$960,000 Net sales - $550,000 CGS - $360,000 Administrative = $50,000 Income before tax

$50,000 Income before tax x (1 - 0.35) = $32,500 Profit after tax

($32,500 profit after tax / $960,000 Net sales) x 100 = 3.4% Net profit ratio

The net profit ratio is really a short-term measurement, because it does not reveal a company's actions to maintain profitability over the long term, as may be indicated by the level of capital investment or expenditures for advertising, training, or research and development. Also, a company may delay a variety of discretionary expenses, such as maintenance, to make its net profit ratio look better than it normally is. Consequently, you should evaluate the net profit ratio alongside a variety of other metrics to gain a full picture of a company's ability to continue as a going concern.

Another issue with the net profit margin is that a company may intentionally keep it low in accordance with a low-pricing strategy that aims to grab market share in exchange for low profitability. In such cases, it may be a mistake to assume that a company is doing poorly, when in fact it may own the bulk of the market share precisely because of its low margins. Conversely, the reverse strategy may result in a very high net profit ratio, but at the cost of only capturing a small market niche.

Another strategy that can artificially drive down the ratio is when a company's owners want to minimize taxes, and so accelerate the recognition of taxable income into the current reporting period. This approach is most commonly found in a privately held business, where there is no need to impress outside investors with the results of operations.

Return on equity[24]

The return on equity ratio reveals the amount of return earned on the shareholders' equity invested in a business. The measurement is commonly used by investors to evaluate current and prospective business investments. This return can be improved when a business buys back its own stock from investors, or by using more debt and less equity to fund its operations.

To calculate the return on equity, simply divide net income by the total amount of equity. The formula is:

$$\frac{\text{Net income}}{\text{Equity}}$$

The numerator can be modified to only include income from operations, which yields a better picture of the value generated by the operational capabilities of a business, with all financing issues stripped out. The use of debt to buy back stock and thereby increase the return on equity can backfire.

[24] AT Return on equity (2015)

The new debt brings with it a new fixed expense in the form of interest payments. If sales decline, this added cost of debt could trigger a steep decline in profits that could end in bankruptcy. Thus, a business that relies too much on debt to enhance its shareholder returns may find itself in significant financial trouble.

Return on Equity Example. The president of Finchley Fireworks has been granted a bonus plan that is triggered by an increase in the return on equity. Finchley has $2,000,000 of equity, of which the president plans to buy back $600,000 with the proceeds of a loan that has a 6% after-tax interest rate. The following table models this plan:

Table 2-11 Models of plan

	Before Stock Buyback	**After Stock Buyback**
Sales	$10,000,000	$10,000,000
Expenses	9,700,000	9,700,000
Debt interest expense	---	36,000
Profits	300,000	264,000
Equity	2,000,000	1,400,000
Return on equity	15%	19%

Source: AT, Return on equity, 2015

The model indicates that this strategy will work. Expenses will be increased by the new amount of interest expense, but the offset is a steep decline in equity, which increases the return on equity. An additional issue to be investigated is whether the company's cash flows are stable enough to support this extra level of debt.

The type of financial engineering described in the example to improve the return on net worth should be periodically re-examined, to account for any changes in the underlying fundamentals of the business.

Return on net assets[25]

The return on net assets measure compares net profits to net assets to see how well a company is able to utilize its asset base to create profits. A high ratio of assets to profits is an indicator of excellent management performance. The RONA formula is to add together fixed assets and net working capital, and divide into net after-tax profits. Net working capital is defined as current assets minus current liabilities. It is best to eliminate unusual items from the calculation, if they are one-time events that can skew the results. The calculation is:

$$\frac{\text{Net profit}}{\text{Fixed assets} + \text{Net working capital}}$$

For example, Quality Cabinets, an old maker of fine mahogany cabinets, has net income of \$2,000,000, which includes an extraordinary expense of \$500,000. It also has fixed assets of \$4,000,000 and net working capital of \$1,000,000. For the purposes of the return on net assets calculation, the controller eliminates the extraordinary expense, which increases the net income figure to \$2,500,000. The calculation of return on net assets is:

$$\frac{\$2{,}500{,}000 \text{ Net income}}{\$4{,}000{,}000 \text{ Fixed assets} + \$1{,}000{,}000 \text{ Net working capital}}$$

$$= 50\% \text{ Return on net assets}$$

[25] AT Return on net asset (2015)

There are a few issues to be aware of when using this ratio:

- *Accelerated depreciation*. You can also use a fixed asset valuation that is net of depreciation, but the type of depreciation calculation used can skew the net asset amount significantly, since some accelerated depreciation methods can eliminate as much as 40% of an asset's value in the first full year of usage.
- *Unusual items*. If a significant proportion of net income is comprised of income or losses due to unusual items that have nothing to do with ongoing revenue creation, the impact of these items should be eliminated from net income for the purposes of the calculation.
- *Intangibles*. Consider eliminating intangible assets from the asset base, especially if these are "manufactured" assets derived from an acquisition transaction.
- *Return on operating assets.*

Financial statement analysis[26]

While financial statement analysis is an excellent tool, there are several issues to be aware of that can interfere with your interpretation of the analysis results. These issues are:

Comparability between periods. The company preparing the financial statements may have changed the accounts in which it stores financial information, so that results may differ from period to period. For example, an expense may appear in the cost of goods sold in one period, and in administrative expenses in another period.

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[26] AT Financial Statement Analysis (2015)

Comparability between companies. An analyst frequently compares the financial ratios of different companies in order to see how they match up against each other. However, each company may aggregate financial information differently, so that the results of their ratios are not really comparable. This can lead an analyst to draw incorrect conclusions about the results of a company in comparison to its competitors.

Operational information. Financial analysis only reviews a company's financial information, not its operational information, so you cannot see a variety of key indicators of future performance, such as the size of the order backlog, or changes in warranty claims. Thus, financial analysis only presents part of the total picture.

2.3. The economic essence of the bankruptcy. State regulation of the bankruptcy proceedings in Kazakhstan

The concept of bankruptcy. In studying the nature of bankruptcy following related trades necessary to differentiate clearly:

- insolvency of the company - is its inability to satisfy the claims of creditors on monetary obligations, as well as the obligations arising from their labor and related relations, and (or) to fulfill the obligation to make compulsory payments: taxes, fees, financial penalties, etc.;
- economic insolvency - is insolvent, has or acquires a stable character recognized by the decision of Economic Court of the economic failure of the debtor to the readjustment;

- bankruptcy - is insolvent, has or acquires a stable character recognized by the decision of Economic Court on bankruptcy with liquidation of the debtor.

Bankruptcy Forms:

- The actual bankruptcy - complete inability of the enterprise to fulfill its obligations and to recover in the near future solvency.
- Fictitious bankruptcy - now obviously false ads about their financial inability to introduce in misleading lenders to get them to all sorts of delays, reductions in the performance of its obligations.
- Deliberate bankruptcy - intentionally created by the manager or the owner of the state enterprise insolvency to inflict economic damage to the company in pursuit of personal interests or interests of individual groups.
- Technical failure - a state of insolvency caused a significant delay in its accounts receivable. At the same time it exceeds the volume of accounts payable of the enterprise and the amount of its assets significantly exceeds its financial obligations. With an effective sanitation technical bankruptcy does not lead to the bankruptcy of legal.

Financial implications of bankruptcy are as follows:

1. bankrupt enterprise shall be liquidated and ceases to exist and activities;
2. financial insolvency of one enterprise generates a financial risk to others, causing them significant economic damage, which ultimately reduces the overall potential for economic development of the

country and contains a negative impact on the economy of the entire state;

3. bankrupt enterprise cannot timely pay the taxes and fees, which complicates the formation of a profitable part of the budget, budgetary and extra-budgetary funds, and this, in turn, slows down the socio-economic development of the state;
4. forced to reducing the volume of its business activities, financial insolvency, the company reduces the number of jobs that creates social tensions in the country.

Thus, the bankruptcy as an economic phenomenon – the result of an inefficient financial performance, it has a great potential for destroying finance a particular company and the state as a whole. The need to counter this threat requires formation in any state institution of bankruptcy.

Bankruptcy Institute provides a redistribution of public capital to more efficient use of company revenues. Bankruptcy Institute acts as an effective tool for managing the national economy.

The need for the institution of bankruptcy. Bankruptcy affects property interests of virtually all business entities - debtors, creditors, the state and is an effective tool of influence on their interests. The fact of bankruptcy or a real threat to encourage business entities to active measures to maintain their financial status at the appropriate level. Otherwise, the bankrupt enterprise will be liquidated and withdrawn from the register of economic subjects.

Content of the national bankruptcy of the system is represented by the following mandatory elements:

- bankruptcy legal framework;
- judicial system specializing in the conduct of affairs in bankruptcy;
- institute experts on the implementation of bankruptcy procedures;
- governments of the bankruptcy;
- system of criteria (characteristics) of the crisis state of enterprise.

Bankruptcy law is a tool to be applied to insolvent debtors bankruptcy procedures in order to overcome the debt crisis, further growth in arrears organizations and prevent negative social impacts associated with these processes, and also determines the legal regulation of the sphere of social activity, including such processes as the functioning and liquidation of legal entities.

The concept of bankruptcy is currently causing negative associations of society, because it means the elimination (or, at least, a radical reorganization) business – companies, organizations, which entails uncertainty for all stakeholders.

Actually bankruptcy role in our society considerable.

Entrepreneurship is a form of activity that not only requires the ability to make a profit, but also creates for its participants risk debt. The insolvent debtor, on the one hand, delaying the satisfaction of creditors' claims, but on the other hand, creates for itself and third parties (founders, members of the legal entity) the possibility of adverse effects: an increase in debt, termination of financial and economic activity, suspension of property management, sale this property and others.

State regulation of the field of public relations by specialized authorized body. Committee on work with poor debtors of the Ministry of Finance (hereinafter - the Committee) shall within the competence realizable and control functions in the sphere of control over the bankruptcy proceedings (with the exception of banks, insurance (reinsurance) organization and accumulative pension funds).

The aims and objectives of the Committee, as the authorized body in the bankruptcy field, is to ensure effective operation of rehabilitation and bankruptcy administrators, aimed at the return of illegally derived assets in the bankruptcy estate, the most complete repayment of creditors' claims, revealing signs of deliberate and false bankruptcy, preventing the use of unfair bankruptcy entrepreneurs as a tool for avoiding obligations and other.

In order to ensure the interests of creditors and decision-making with their participation in the rehabilitation process and bankruptcy proceedings creditors committee created.

The law gives the creditor committee a wide range of supervisory powers, such as the right to require the rehabilitation or bankruptcy trustee to provide information about the debtor's financial status and progress of the rehabilitation procedure and bankruptcy proceedings, to appeal to the authorized body or court of his actions, to decide on the treatment of the authorized body of the their removal from the duties performed, approve submission of a plan for implementing the control of the estate, to approve the article and cost estimates for the rehabilitation procedure and bankruptcy proceedings.

Regarding the insolvency of enterprises it should be noted that the use of bankruptcy procedures need not necessarily mean the elimination of a legal entity, that is, the sale of all its assets to pay debts.

Kazakhstan's legislation provides for such a measure to restore the solvency of the enterprise as a rehabilitation procedure.

According to Article 43 of the Law of the Republic of Kazakhstan "On bankruptcy" (hereinafter - the Law) in the presence of the possibility of restoring its solvency insolvent debtor may file a petition on the application in respect of its rehabilitation procedure the authorized body to the appeal to the court for recognition of its bankruptcy. With such a request may also contact creditors or third parties prior to the initiation of bankruptcy proceedings.

The rehabilitation procedure is a procedure to restore solvency of the enterprise, and it is aimed at saving enterprises whose insolvency is formed, for example, due to unprofessional management. It is a good alternative to avoid the liquidation of the insolvent debtor and the creditors get the full satisfaction of their claims.

After the introduction of rehabilitation procedures occur following consequences:

1. For the period of implementation with respect to the debtor's rehabilitation procedure is assigned rehabilitation manager to which the powers of all the organs of the legal entity on its property and affairs. Rehabilitation manager has the right to take action in accordance with the rehabilitation plan aimed at achieving the goal of rehabilitation debtor (fire workers, to carry out an internal reorganization to liquidate the internal divisions and to apply other measures). Sale of property (assets), provided the rehabilitation plan, it is carried out by tendering.

2. Claims of creditors of the insolvent debtor for the duration of the rehabilitation procedure are satisfied in the manner prescribed by law.
3. Since the introduction of the rehabilitation procedure steps the accrual of penalties (fines, penalties) for all types of debtor's debts, as well as interest on loans received.

The debtor's rehabilitation plan should include specific measures to restore the solvency of the debtor (rehabilitation measures), and the maturity of the debt owed to creditors, which tend to provide the bankrupt deferment of payment of accounts payable, which is one of the most important factors affecting the recovery of the company's solvency. Moreover, rehabilitation measures may include any organizational and economic, technical, financial, economic, legal and other, not contradicting the legislation of the Republic of Kazakhstan, measures aimed at preventing the liquidation of unprofitable enterprises.

The implementation of these measures can restore the solvency of the debtor.

Application to the debtor rehabilitation and liquidation procedures can not only satisfy the claims of creditors and to release the bankrupt from debt, but also to preserve and bring out the crisis of insolvency is often a strategically important industrial production of large enterprises, to save them jobs and tax base, as well as clear the Unified State Register legal entities of the Republic of Kazakhstan on non-viable and inactive businesses.

So for the last 1.5 years in respect of more than 70 debtors to apply the procedure of rehabilitation, in which for the period to restore its solvency 30 organizations. 84 organizations today are in the rehabilitation process, employment of more than 13 000 employees and 8 organizations who have successfully completed the procedure in 2011 saved more than 1,000 jobs.

Also it should be noted that if the positive moments earlier rehabilitation procedures used in most cases, utility companies, in recent years, this procedure has become popular among other forms of business organizations.

Bankruptcy proceedings is an organizational and legal mechanism of the procedure to the immediate liquidation of the debtor company.

The usefulness of the bankruptcy proceedings in relation to the bankrupt organizations is that as a result of this procedure, a new efficient owner comes to debt relief viable production core.

In addition, the law provides for the order of repayment of creditors' claims. Moreover, in the first place, the claims for payment of withholding from wages and (or) other income maintenance, as well as the demands of citizens to whom the liquidated bankrupt is responsible for causing harm to life or health, through capitalization of corresponding time payments, the second, the settlements salaries and compensation of persons who worked under an employment contract, debts on social payments to the State social insurance Fund, to pay withheld from the wages of compulsory pension contributions, as well as royalties under copyright contracts, the third, the claims of creditors under the obligations secured pledge of property of the liquidated in bankruptcy, to the amount of collateral, in the fourth, the liabilities on taxes and other obligatory payments to the budget and in the fifth, the settlements with other creditors in accordance with this Law and other legislative acts of the Republic of Kazakhstan.

Upon completion of settlements with creditors, the bankrupt is exempt from execution of obligations and other claims against the debtor, and included in the register of creditors' claims, that is, an entrepreneur can start doing business again.

1. Legislation of the Republic of Kazakhstan on rehabilitation and bankruptcy procedures based on the Constitution of the Republic of Kazakhstan and consists of the Civil Code of the Republic of Kazakhstan (general part of 27 December 2015, a special part of the July 1, 2015 № 409-I) (hereinafter - the Civil Code), Code of Civil Procedure Republic of Kazakhstan dated July 13, 2014 № 411-I (hereinafter – the Code of Civil Procedure), the Law of the Republic of Kazakhstan from March 7, 2014 № 176-V "on rehabilitation and bankruptcy" (hereinafter – the Law "on rehabilitation and bankruptcy"), the Law of the Republic of Kazakhstan on January 31, 2016 "on private entrepreneurship" number 124-III (hereinafter – the Law "on private entrepreneurship") and other laws and regulations, establishing the features of the application of rehabilitation and bankruptcy procedures in respect of the individual businesses.

In accordance with paragraph 2 of Article 2 of the Law "On Rehabilitation and Bankruptcy", if an international treaty ratified by the Republic of Kazakhstan stipulates other rules than those stipulated by law, the rules of the international treaty.

2. Cases of bankruptcy, rehabilitation, accelerated rehabilitation, and business to bring to vicarious liability of officials (debtor) by the courts under the general rules of civil proceedings with the features laid down by the Law "On rehabilitation and bankruptcy".

Cases of this category of jurisdiction of specialized inter-district economic courts of regions, cities of Almaty and Astana, and considered in absentia cannot be.

3. According to Article 3 of the Law "On Rehabilitation and Bankruptcy" particularly the use of bankruptcy procedures in respect of the individual economic entities, depending on their legal status and activities can be established by the legislation of the Republic of Kazakhstan.

Features forced reorganization and liquidation of banks and insurance (reinsurance) organizations established by the banking legislation and legislation on insurance and insurance (reinsurance) activity.

Grounds for involuntary liquidation grain reception and cotton processing enterprises, especially the realization of the estate and the ranking of creditors' claims provided for in the laws of the Republic of Kazakhstan dated January 19, 2014 № 143-II "On Grain" and dated July 21, 2010 № 298-III "On the development of the cotton industry".

Legislative acts set individual features of rehabilitation and bankruptcy procedures and in respect of pension funds, agricultural producers.

The use of the bankruptcy procedure, taking into account the legal status of the business entity - individual entrepreneurs and peasant (farmer) economy – is governed by Article 21 of the Civil Code and Article 28 of the Law "On private entrepreneurship".

Rehabilitation procedures (accelerated rehabilitation) do not apply to individual entrepreneurs and peasant (farmer) households.

When the bankruptcy of organizations and enterprises, individual entrepreneurs, is a natural monopoly or market entities occupying dominant or monopolistic position on the relevant market or are of great strategic importance for the country's economy that could have an impact on life, health of citizens, national security or the environment, including organizations stakes (interests) of which are attributed to the strategic objectives in accordance with the legislation of the Republic of Kazakhstan, as well as bankrupt at the initiative of the state in order to protect the interests of citizens and the state government of the Republic of Kazakhstan may establish special conditions and procedures for the implementation of the estate and additional requirements for buyers objects of the estate, as well as to decide on the acquisition of national managing holding the estate in bankruptcy organizations stakes (interests) of which are attributed to the strategic objectives in accordance with the legislation of the Republic of Kazakhstan, or organizations that have strategic importance for the country's economy.

When the bankruptcy of legal entities engaged in environmentally hazardous types of business and other activities, there is a compulsory environmental audit of their operations in accordance with the Environmental Code of the Republic of Kazakhstan dated January 9, 2007 № 212-III.

4. Declaration of bankruptcy absent debtor may be filed by the prosecutor or any creditor of the debtor, regardless of the amount of a monetary obligation and the term of its execution.

If the amount payable under liabilities less fixed by law, the court shall return the application without consideration on the basis of paragraph 1 of Article 43 and paragraph 4 of Article 44 of the Law "On rehabilitation and bankruptcy".

5. In making consideration of applications of the debtor or creditor in bankruptcy court or the application of rehabilitation procedure should check properly whether the person (body) is signed on the basis of constituent documents of the applicant.

If the acceptance of the application of the debtor or creditor in bankruptcy or application of rehabilitation procedure the court finds that it is signed by a person not authorized or is not accompanied by documents confirming the authority of the person and the documents provided for in Articles 41 and 42 of the Law "On the Rehabilitation and bankruptcy", the court returns such a declaration in accordance with paragraph 1 of article 43 of the Law "On rehabilitation and bankruptcy" without consideration.

In cases where the debtor's application to the court is binding on the grounds provided by paragraph 2 of Article 43 of the Law "On Rehabilitation and Bankruptcy", the court is obliged to accept the application in its production and the necessary documents to request from the applicant in preparation of the case for trial, creditor's application may be signed by his representative. In this case, under Articles 61 and 62 of the CPC attached to the application of the creditor attorney confirming the authority of access to a court.

6. Pursuant to Article 46 of the Law "On Rehabilitation and Bankruptcy" creditor is entitled to a declaration to specify several claims against the debtor, as the requirements of several creditors may be combined in one application.

If the creditor's application for a bankruptcy submitted to the court after the institution of proceedings against the debtor on the application of another creditor, but before the decision in the case, the court shall issue a ruling on the accession application to the commencement of proceedings for simultaneous consideration.

When you receive the application after the entry into force of a court decision declaring the debtor bankrupt and bankruptcy proceedings have been commenced court rejects the application under Article 153 of the Code of Civil Procedure.

7. Courts should be borne in mind that the application of the bankruptcy of legal entities and individual entrepreneurs are considered in a special procedure, so the presence or absence of grounds for the recognition of the insolvent debtor is established at the time of going to court.

The refusal of the court to recognize the debtor bankrupt (the application of rehabilitation procedure or accelerated rehabilitation) or termination of the bankruptcy proceedings (rehabilitation procedure or accelerated rehabilitation) on the grounds established by law (except for termination of the proceedings in connection with the liquidation of the debtor), is not a basis for refusal to accept subsequent applications for the recognition of the debtor bankrupt or application of rehabilitation procedure or accelerated rehabilitation.

Any creditor, including creditors who refused to declare the debtor bankrupt (the application of rehabilitation or an accelerated rehabilitation procedure), has the right to re-apply to the court for recognition of the debtor bankrupt or the use of rehabilitation procedure or accelerated rehabilitation in connection with the changed circumstances (significant increase in the volume of indisputable obligations the debtor, a significant change in its financial and economic situation, and others.).

8. Articles 32 and 50 of the Law "On Rehabilitation and Bankruptcy" set list of possible for the debtor the consequences if a court instituting bankruptcy proceedings (on the application of rehabilitation or an accelerated rehabilitation) - a ban the owner of the property and all its bodies to dispose of assets outside the ordinary course of business, the ban on satisfaction of certain creditors in preference to other creditors (other than those expressly set forth in the law), the suspension of the execution of previous decisions of courts and others.

In deciding whether or not to apply measures to ensure that the requirements of the creditors referred to in Article 51 of the Law "On Rehabilitation and Bankruptcy", the court must bear in mind that the adoption of such measures and to make a ruling on the limitation of the rights of the debtor is only possible on the basis of the creditor statements and other involved in the case.

Accepted court measures to ensure should be reasonable, consistent with the objective interests of the creditors, the safety of property and does not prevent the continuation of work in production with a continuous or seasonal cycle in life and health of citizens, environment and national security. In connection with the foregoing, the court cannot be taken all measures to ensure, provided for in Article 51 of the Law "On rehabilitation and bankruptcy".

9. Initiation of proceedings in the case of bankruptcy the debtor (the application of rehabilitation or an accelerated rehabilitation procedure) is not grounds for termination of the cases in which the debtor acts as a defendant. The question of the execution of these decisions, along with the other entered into force of the court before the decision to declare the debtor bankrupt (on the application of rehabilitation procedure or accelerated rehabilitation procedure), decided in accordance with the procedure established by Articles 32 and 50 of the Law "On rehabilitation and bankruptcy".

The judgment on the application in respect of the debtor's rehabilitation procedure or accelerated rehabilitation procedure also does not constitute grounds for termination of court proceedings in the previously excited cases in which the debtor acts as a defendant. The creditors' claims, liabilities that have arisen before, both before and after the introduction of the rehabilitation procedure or accelerated rehabilitation procedure by the courts in the general order.

Features performance by the debtor of court decisions handed down during the period of bankruptcy (rehabilitation procedure or accelerated rehabilitation procedure), established by Articles 36, 68 and 87 of the Law "On rehabilitation and bankruptcy".

Consequences of initiation of bankruptcy proceedings (rehabilitation procedure or accelerated rehabilitation procedure), set out in Articles 32, 36, 50, 68 and 87 of the Law "On rehabilitation and bankruptcy", are mandatory.

10. Since the decision of the court all property-related proceedings are terminated in bankruptcy with the debtor as a defendant, are in court. The property claims of creditors may be brought by the debtor only in the production of the bankruptcy and considered by the court that made the decision to declare the debtor bankrupt.

Bankruptcy trustee is required to notify all courts in charge of the case for consideration of property claims against the debtor, for recognition of its bankrupt and send the application for termination of proceedings.

Cases in which the debtor plaintiff, considered by the rules of civil procedure, without any exceptions.

11. According to Article 5 of the Law "On Rehabilitation and Bankruptcy" grounds for the lender to the court to declare the debtor bankrupt is its inability to pay, which occurs when the debtor obligations within the time limits specified in subparagraphs 1), 2) and 3) of paragraph 1 of article 5 of the Act, from the due date of its execution.

The basis for the debtor is declared bankrupt by a court order is its inconsistency. In establishing the fact of insolvency should be considered monetary obligations of the debtor, whose execution time has come, as well as received and (or) are on performance.

Courts should be noted that current legislation on rehabilitation and bankruptcy insolvency contain different concepts and the reasons for declaring the debtor bankrupt for different businesses.

Article 1 of the Law "On Rehabilitation and Bankruptcy" inadequacy of the legal entity is defined as a set by the court the debtor's inability to fully satisfy the claims of creditors on monetary obligations, to make calculations on a payment with the persons working under an employment contract, to ensure payment of taxes and other obligatory payments to the budget, social security contributions to the State social insurance Fund as well as the mandatory pension contributions and the mandatory occupational pension contributions.

The criterion for determining the debtor's insolvency - legal entity is its inability to pay.

For the recognition of second-tier bank bankrupt in accordance with Article 71 of the Law of the Republic of Kazakhstan dated August 31, 2015

№ 2444 "On banks and banking activity in the Republic of Kazakhstan", you must have the characteristic of insolvency. In this case the solvency of the bank of the debtor is determined only by the conclusion of the National Bank of Kazakhstan drawn up taking into account the methods of calculation of prudential standards and other mandatory standards and limits, the size of the bank's capital, comprehensive assessment made by the authorized legal person.

Insolvency farmers understood the inability of the debtor during the next cycle, seasonality satisfy the claims of creditors on monetary obligations due to property belonging to him.

In establishing the failure of agricultural producers are taken into account the commitments of execution which matured not earlier than the previous year.

12. Articles 4 and 5 of the Law "On Rehabilitation and Bankruptcy" an exhaustive list of grounds for the court's decision to declare the debtor bankrupt or application of rehabilitation procedure. The Court is not entitled to declare the debtor bankrupt or apply rehabilitation procedures on other grounds established by law no.

The statements of the prosecutor, the creditor (creditors), except where the application on the grounds stipulated by Article 82 of the Law "On Rehabilitation and Bankruptcy", may be withdrawn by the applicants before taking a decision to declare the debtor bankrupt or application of rehabilitation procedure, in those cases, the court shall issue a ruling on the termination of the proceedings.

13. According to the results of the collection of information about the financial condition of the debtor's temporary manager of analytical conclusion containing conclusions: his solvency or insolvency; that there are grounds for declaring the debtor bankrupt; that there are grounds for the application of rehabilitation procedure; the absence of the debtor at the address given in the application for bankruptcy; the absence of other creditors, other than the applicant; not to grant access to the temporary administrator of the debtor's records, which prevented drawing conclusions.

When the debtor does not provide temporary administrator access to records that an obstacle drawing conclusions about the financial condition of the debtor, the court must resolve the dispute on the basis of the available evidence in the materials of the case.

In determining the question of insolvency or solvency of the debtor's courts should take into account that the conclusion of the interim manager is one of the evidence in the case, therefore, on the basis of Article 67, 68 and 70 of the CPC, this conclusion should be evaluated by a court in conjunction with other evidence in the case in view of its relevance, affordability and reliability. Such a conclusion is not for the court advantages over other evidence.

The court's decision to declare the debtor bankrupt, based on recognition of its insolvency, shall contain a detailed analysis of the financial and economic condition of the debtor, as well as a reasonable assessment of the debtor's insolvency, on the merits.

14. The basis for filing an application to the court for a bankruptcy is its inability to pay in the absence of the possibility of restoring solvency, whereas the basis for the appeal on the application of rehabilitation procedure is its insolvency or threatened insolvency of the debtor will be unable to fulfill financial obligations when they fall due in the next twelve months, subject to availability restore solvency.

Under the threat of insolvency of the debtor should understand this state of solvency, when in the near future may come his inability to fully satisfy the claims of creditors on monetary obligations.

Under the possibility of restoring solvency of the debtor should understand the presence of a set of interrelated real actions aimed at improving the financial performance of the debtor and implemented on the basis of mutual agreement between the debtor and creditors, a group of homogeneous creditors.

Courts should be borne in mind that the use of rehabilitation procedures at the same time, you must have two characteristics:

1. the debtor's insolvency or threat of insolvency;
2. a real opportunity to restore its solvency.

The rehabilitation procedure can also be applied for the case brought by the debtor bankrupt. This rehabilitation plan should be developed jointly by the debtor with the creditors, and it must be approved by the court within three months from the date of entry into force of the decision on the application of rehabilitation procedure.

The use of rehabilitation procedures in the interest of the debtor in order to delay the execution of creditors' claims is contrary to the law "On rehabilitation and bankruptcy", so the court may not decide on the application of rehabilitation procedure against business entities, not proven in a general way its insolvency or threat of insolvency of their occurrence.

Court within two working days from the date the decision on the application of rehabilitation procedure in force shall issue a ruling on the appointment of a temporary administrator of the number of persons registered in the authorized body, the details of which are available on an Internet resource of the authorized body on the date of the determination.

15. Law "On Rehabilitation and Bankruptcy" establishes the procedure for the use of rehabilitation procedures: accelerated rehabilitation procedure and rehabilitation procedures.

Courts should take into account that a statement on the application of the accelerated rehabilitation procedure may apply only to the debtor. Accelerated rehabilitation procedure is applied in the presence of the following conditions: in respect of the debtor are not prosecuted for rehabilitation or bankruptcy; the debtor is a commercial organization; the debtor is insolvent or is not able to fulfill financial obligations when they fall due in the next twelve months.

Accelerated rehabilitation procedure does not apply to the debtor of the citizens' demands, to whom the debtor is liable for damage to life or health, for remuneration and compensation of persons who worked under an employment contract, has arrears of social contributions to the State Social Insurance Fund for compulsory pension contributions and compulsory professional pension contributions, remuneration under copyright agreements, as well as taxes and other obligatory payments to the budget.

With the accelerated rehabilitation procedure rehabilitation plan drawn up by the applicant (the debtor), and available to the court at the same time, a statement on the application of the accelerated rehabilitation procedure, the plan approved by the court when deciding on the application of the accelerated rehabilitation procedure. In the course of the accelerated rehabilitation procedure register of creditors' claims is not formed.

16. According to the owner of the property of the debtor (the authorized body to them), the founders (participants) meeting of creditors on the basis of the decision, the court may retain the right to property management and affairs of the debtor since the approval of the rehabilitation plan for the owner of the property of the debtor, an institution authorized by founders (participants).

If a decision on cancellation of the meeting of creditors the right of the owner of property of the debtor, the founders (participants) in the management of property and affairs of the debtor's creditors' meeting is required to provide rehabilitation manager candidacy of the number of persons registered in the authorized body. The decision of the creditors' meeting on the abolition of the right to manage the property and affairs of the debtor goes to court, along with the rehabilitation plan. The authorized body shall appoint a rehabilitation manager candidacy presented by the meeting of creditors within five working days from the date of entry into force of the ruling on approval of the rehabilitation plan or a ruling on dismissal of the owner of property of the debtor, the founders (participants) of the property management and affairs of the debtor. In case of cancellation of the authorized body in the appointment of candidates submitted by the creditors' meeting is required to submit another candidate for the appointment of rehabilitation manager.

In cases of default accounts payable repayment schedule for a period of three months and (or) to identify violations of the Law "On Rehabilitation and Bankruptcy", including identification of the authorized body, the debtor's property owner, the founders (participants) of which retain the right to property management and affairs of the debtor, excluded from the court on the application of the control of the person authorized by the creditors meeting within fifteen days from the date of receipt of the application.

17. The legislation on rehabilitation and bankruptcy establishes the obligation of the temporary administrator (temporary administrator) on the formation of the register of creditors' claims.

The claims of creditors against the debtor shall be declared by them, not later than one month from the date of publication of the notice on the procedure for the application of creditors' claims.

The creditors' claims stated in a month's time, should be considered a temporary administrator (temporary administrator) within ten working days of receipt, and accepted requirements are included in the register. Requirement for the creditor claimed within one month, included in the register of creditors 'claims, but a creditor loses the right to vote at a meeting of creditors to the full satisfaction of creditors' claims submitted within one month.

The registry can also be incorporated into the claims of creditors, declared by them earlier in the court in compliance with the requirements of Article 72, paragraph 2 and paragraph 3 of Article 90 of the Law "On Rehabilitation and Bankruptcy".

On results of consideration of the claims of creditors (for recognition or non-recognition of claims in full or in part with the reasons for non-recognition), temporary administrator (temporary administrator) shall notify each creditor on the day following the day the decision.

The decision of a temporary administrator (temporary administrator) may be appealed to the creditor, the founder (participant), the debtor within ten working days of the court hearing the case of rehabilitation or bankruptcy. This period is preclusive, its omission is a ground for refusing the appeal.

In the case of a creditor application recognition, founder (participant) justified the court must determine the appropriate place in the register of creditors' claims, which must be included the creditor's claim, the founder (participant).

The courts should take into account "On rehabilitation and bankruptcy", according to which the claims of creditors (including secured creditors), declared after the deadline provided for in paragraph 3 of Article 90 of the Law "On rehabilitation and bankruptcy" of Article 101 of the requirements of paragraph 3 of the Act, but before the liquidation balance, satisfied from the bankruptcy estate remaining after satisfaction of creditors' claims submitted within the prescribed period.

Temporary administrator (temporary administrator) does not have the right to form a creditors' claims register on the basis of decoding payable to the balance of the debtor, since it is contrary to the law "On rehabilitation and bankruptcy" and article 8 of the Civil Code, providing individuals and legal entities the right in its sole discretion to dispose of their rights, including the right to protection. It is therefore necessary to check the availability of documents confirming the basis and amount of claims (creditors 'statements come into force court decisions, copies of contracts, recognition of the debt by the debtor, and so on. D.) The formation of the register of creditors' claims the temporary administrator (temporary administrator).

18. First of all, the claims for compensation for harm caused to life and health; for alimony; Salaries and compensation of persons who worked under an employment contract, the payment of arrears of social contributions to the State Social Insurance Fund, compulsory pension contributions, compulsory professional pension contributions; the payment of royalties under copyright contracts.

In case of insufficiency of the property to pay off the claims, it is distributed in proportion to the requirements, in compliance with the order of priority set forth in this paragraph.

19. Requirements for secured creditors to be included in the register of creditors' claims of the second stage in the presence of the estate collateral, duly executed and registered pledges, and only in part, collateralized. Unsecured requirements include the principal amount, interest, penalties (fines), if these claims are secured by collateral and subject to inclusion in the register of claims of creditors of the second stage.

Requirements secured creditors based on improperly registration of the contract of pledge, and to the extent not collateralized, recorded in the fourth stage.

In case the meeting of creditors the decision to consent to the transfer of collateral secured creditors, the latter is deprived of the right to vote at a meeting of creditors in making decisions on other issues within the competence of the creditors' meeting.

The courts should take into account that the transfer of collateral for secured creditors only after the repayment of their claims of creditors of the first stage and the administrative costs related to the conservation and maintenance of collateral.

Failure to appear at a meeting of creditors secured creditor, properly notified about the time and place of the meeting of creditors, is equal to failure from taking collateral.

20. Paragraph 4 of Article 100 of the Law "On Rehabilitation and Bankruptcy" found that a third of all indebtedness under taxes and other obligatory payments to the budget. When checking the correctness of the register of the third stage of the courts must apply the rules of subparagraph 32) of paragraph 1 of Article 12 of the Code of the Republic of Kazakhstan dated December 10, 2015 № 99-IV "On taxes and other obligatory payments to the budget (Tax code)", according to which the tax debt includes a sum of arrears, as well as the outstanding amount of fines and penalties.

21. When checking the correctness of the fourth stage of the register courts should pay attention to the established law "On rehabilitation and bankruptcy" procedure of separate accounting for the amount of the debtor's obligations to the lender and sanctions for failure to fulfill obligations, the amount of damages. As the requirements for payment of the sanctions imposed for failure to penalties and damages under the law shall be met as part of the fifth stage.

22. Property mass ensures the satisfaction of creditors 'claims, so the actions of the bankruptcy administrator on formation of the estate are, by law, under the supervision of the creditors' meeting.

Bankruptcy manager has no right to establish the order of evaluation and sale of the property, without the decision of the creditors meeting.

Property mass formed by the bankruptcy administrator in the manner prescribed by Article 96 of the Law "On rehabilitation and bankruptcy".

The powers of the bankruptcy administrator assigned and the identification of transactions made by the debtor in the circumstances specified in Article 7 of the Law "On Rehabilitation and Bankruptcy" and the adoption of measures to return the property of the debtor.

Bankruptcy administrator shall be entitled to go to court with a lawsuit to invalidate the reorganization of the legal entity-debtor, by a perfect connection, division or separation for three years before the initiation of bankruptcy proceedings (recovery) and led to the illegal withdrawal of assets.

The composition of the estate in the application of a peasant (farmer's) economy bankruptcy proceedings should be determined in accordance with Article 1 and paragraph 4 of Article 9 of the Law of the Republic of Kazakhstan dated March 31, 2014 № 214-I "On peasant or farm."

The rehabilitation procedure the estate formed similarly as in the bankruptcy proceedings.

23. Administrative expenses in the bankruptcy (rehabilitation) production in accordance with Articles 1, 100 of the Law "On Rehabilitation and Bankruptcy" include all the costs of the bankruptcy procedure (rehabilitation), including the administrator's remuneration. Administrative costs are covered out of the lineup due to the debtor's property.

Control over the targeted use of funds intended to cover administrative costs, carried out the creditors' committee.

Misuse and overrun the limit of funds for administrative expenses, is grounds for dismissal of the bankruptcy (rehab) the control of the management of property and affairs of the debtor, and to bring him to justice, in accordance with the laws of the Republic of Kazakhstan.

24. In accordance with paragraph 2 of Article 6 of the Law "On Rehabilitation and Bankruptcy", if the application for bankruptcy is filed by the debtor to the court for false bankruptcy, creditors may require the debtor compensation of damages, and to go to court about attracting people who took this decision to vicarious liability.

Paragraph 3 of Article 6 of the Law "On Rehabilitation and Bankruptcy" provides that the bankruptcy manager in case of detection during the bankruptcy proceedings of deliberate bankruptcy of the facts is required, within one month, and the creditors have the right to go to court with a claim against such person for the recovery of the amounts of creditors' claims, remained unmet due to lack of bankruptcy estate as a result of bankruptcy proceedings.

In this case such a right to recover the amount of damage caused by faulty actions of the founder (participant) and (or) an official of the debtor also have bodies of government revenues, demands that remain unmet due to lack of bankruptcy estate as a result of bankruptcy proceedings.

25. According to subparagraph 3) of Article 1 of the Law "On Rehabilitation and Bankruptcy" administrator - the temporary administrator, Rehabilitation, Bankruptcy and temporary administrator appointed in the prescribed manner during the proceedings before the court and of the rehabilitation procedure and bankruptcy proceedings. The Administrator acts as the sole governing body of the debtor and shall exercise its powers in the place of the debtor. Administrator appointed by the person registered in the authorized body.

The administrator can be removed from the administration and property of the debtor in the same order in which assigned for the implementation of these powers.

26. The law "On rehabilitation and bankruptcy" on March 7, 2014 came into force on 26 March 2014, therefore, on the basis of Article 4 of the Civil Code, article 4 of the Code of Civil Procedure and Article 37 of the Law of the Republic of Kazakhstan dated March 24, 2013 № 213-I "On normative legal acts "it rules apply to cases received by the court after its entry into force.

The norms of the Law "On Rehabilitation and Bankruptcy" apply in cases received by the courts before its entry into force, - this applies in respect of acts (extension, drawing up and approval of the final report, etc...), Committed to rehabilitation (Bankruptcy) the manager and the authorized body in the process of rehabilitation or bankruptcy proceedings.

The recommendations made by the authorized body to the enactment of the Law "On Rehabilitation and Bankruptcy" solution: the appointment of the contest (rehabilitation) Governing Board; the approval of the committee of creditors and the register of creditors' claims; establishment or extension of bankruptcy (rehabilitation) production; remain valid, if they are not contrary to the law "On rehabilitation and bankruptcy".

27. In paragraph 1 of Article 84 of the Law "On Rehabilitation and Bankruptcy" provided for the duration of the bankruptcy procedure, which is determined by the decision of the court and shall not exceed nine months. This period may be extended by the court at the request of the bankruptcy administrator with the consent of the creditors' meeting for no more than three months, and for agricultural producers - not more than one year.

In cases where the case has one or more of the grounds for extending the term of the bankruptcy procedures provided for in paragraph 2 of Article 84 of the Law "On Rehabilitation and Bankruptcy", the term of the bankruptcy procedure may be extended by the court several times in compliance with Article 84 of the requirements of paragraph 1, item 1 Law "on rehabilitation and bankruptcy", that is, at the request of the bankruptcy administrator with the consent of the creditors' meeting for no more than three months, and for agricultural producers - not more than one year for each extension.

Financial statement analysis can be a very useful tool for understanding a firm’s performance and conditions. However, there are certain problems and issues encountered in such analysis which call for care, circumspection, and Judgment. (adilet.zan.kz, 2016)

Problems in Financial Statement Analysis

You have to cope with the following while analyzing financial statements:

Lack of an Underlying Theory: The basic problem in financial statement analysis is that there is no theory that tells us which numbers to look at and how to interpret them. In the absence of an underlying theory financial statement analysis appears to be ad hoc informal and subjective. From a negative viewpoint, the most striking aspect of ratio analysis is the absence of an explicit theoretical structure.

As a result the subject of ratio analysis is replete with untested assertions about which ratios should be used and what their proper levels should be.

Conglomerate Firms: Many firms, particularly the large ones, have operations spanning a wide range of industries. Given the diversity of their product lines, it is difficult to find suitable benchmarks for evaluating their financial performance and condition. Hence, it appears that meaningful benchmarks may be available only for firms which have a well defined industry classification.

Window Dressing: Firms may resort to window dressing to project a favorable financial picture. For example, a firm may prepare its balance sheet at a point when its inventory level is very low. As a result, it may appear that the firm has a very comfortable liquidity position and a high turnover of inventories. When window dressing of this kind is suspected, the financial analyst should look at the average level of inventory over a period of time and not the level of inventory at just one point of time.

Variations in Accounting Policies: Business firms have some latitude in the accounting treatment of items like depreciation, valuation of stocks, research and development expenses, foreign exchange transactions, installment sales, preliminary and pre-operative expenses, provision of reserves, and revaluation of assets. Due to diversity of accounting policies found in practice, comparative financial statement analysis may be vitiated.

Interpretation of Results: Though industry average and other yardsticks are commonly used in financial ratios, it is somewhat difficult to judge whether a certain ratio is good or bad. A high current ratio, for example may indicate a strong liquidity position (something good) or excessive inventories (something bad). Likewise a high turnover of fixed asset may mean efficient utilization of plant and machinery or continued flogging of more or less fully depreciated worn, out and inefficient plant and machinery.

Another problem in interpretation arises when a firm has some favorable ratios and some unfavorable ratios and this is rather common. In such a situation, it may be somewhat difficult to form an overall judgment about its financial strength or weakness. Multiple discriminated analysis, a statistical tool, may be employed to sort out the net effect of several ratios pointing in different directions.

Correlation among ratios: Notwithstanding the previous observation, financial ratios of a firm often show a high degree of correlation. This is because several ratios have some common element (sales for example, is used in various turnover ratios) and several items tend to move in harmony because of some common underlying factor. In view of ratio correlations, it is redundant and often confusing to employ a large number of ratios in financial statement analysis. Hence it is necessary to choose a small group of ratios from a large set of ratios. Such a selection requires a good understanding of the meaning and limitations of various ratios and an insight into the economies of the business. (http://www.citeman.com/, 2008)

Ratio analysis using financial statements includes accounting, stock market, and management related limitations. These limits leave analysts with remaining questions about the company.

First of all, ratio analysis is hampered by potential limitations with accounting and the data in the financial statements themselves. This can include errors as well as accounting mismanagement, which involves distorting the raw data used to derive financial ratios. While accounting measures may have more external standards and oversights than many other ways of benchmarking companies, this is still a limit.

Ratio analysis using financial statements as a tool for performing stock valuation can be limited as well. The efficient-market hypothesis (EMH), for example, asserts that financial markets are "informationally efficient". In consequence of this, one cannot consistently achieve returns in excess of average market returns on a risk-adjusted basis, given the information available at the time the investment is made. While the weak form of this hypothesis argues that there can be a long run benefit to information derived from fundamental analysis, stronger forms argue that fundamental analysis like ratio analysis will not allow for greater financial returns.

In another view on stock markets, technical analysts argue that sentiment is as much if not more of a driver of stock prices than is the fundamental data on a company like its financials. Behavioral economists attribute the imperfections in financial markets to a combination of cognitive biases such as overconfidence, overreaction, representative bias, information bias, and various other predictable human errors in reasoning and information processing. These audiences also see limits to ratio analysis as a predictor of stock market returns.

At the management and investor level, ratio analysis using financial statements can also leave out a number of important aspects of a firm's success, such as key intangibles, like brand, relationships, skills, and culture. These are primary drivers of success over the longer term even though they are absent from conventional financial statements.

Other disadvantages of this type of analysis is that if used alone it can present an overly simplistic view of the company by distilling a great deal of information into a single number or series of numbers. Also, changes in the information underlying ratios can hamper comparisons across time and inconsistencies within and across the industry can also complicate comparisons. (https://www.boundless.com, 2016)

Assessment of economic and financial situation of entities is necessary for all those involved in economic activity. Formation of anti-crisis program should be accompanied by analysis of economic and financial activity of the enterprise, its assets, liabilities, accounts receivable and payable, the level of insurance with their own etc. This will help to determine the causes of the crisis situation, establishing methods to overcome it.

Analysis of financial condition and solvency commercial entities structures is carried out based on the use of different assessment methods in dynamic business processes. In the promotion of commercial business activity analysis using financial ratios are calculated on the basis of the main accounting documents. For a more thorough analysis of business enterprises use special research reports based on data production and administrative records.

Evaluation is a component of management science and is one of the most developed and complex market conditions, being part of financial management. Analysis of corporate entities is needed not only when the company is in decay, but also when the company "has a good health", but want to improve their performance.

3. METHODOLOGICAL BASIS OF FORECASTING BANKRUPTCY

3.1. Overview of bankruptcy prediction methods

The development of Kazakhstan's economy at the present stage is characterized by a variety of transients when the crises and critical situations are an essential feature of the functioning of economic systems at all levels. Therefore, economic security has become one of the strategic tasks of the state.

However, the economic security of the state cannot be achieved without a stable functioning of the real economy. In a dynamically changing environment economic security of the enterprise - the question of its survival as bankruptcy appears likely outcome of economic activity. Operational measures for enterprises to adapt to the new realities becomes insufficient. An urgent task is to create a system of diagnosing the state of security methods (danger) of the enterprise, allowing on the basis of received and appropriately processed information to calculate the objective criteria on the basis of which it is possible not only to fix the state of danger, but also to identify the company, which in the future is possible deterioration in the financial condition.

Despite the active ongoing in recent studies, the problem of timely diagnosis, prediction and recognition of the crisis on enterprises has not lost its significance.

Analysis of the consistency of evaluation methods of different organizations and their modifications shows that the problem of predicting viability long time not of interest to researchers, not only in financial analysis, but also within the boundaries of economic theory in principle. However, in connection with the development of the theory of management and improvement of applied economic analysis tools, as well as the interest of the majority of economic agents to reduce risk, to the present, under various approaches different diagnostic techniques were formed and forecasting organizations solvency. Existing methods can be divided into several groups:

- *Coefficient methods - methods* based on the analysis of quantitative indicators calculated on the basis of financial reporting data.
- Multivariate models based on the multiplicative discriminant analysis - methods, where the company's bankruptcy risk is measured as a function depending on the particular set of variables, which are assigned to the respective weights.
- *Qualitative and analytical methods* - methods based on the evaluation of qualitative parameters of the company (market position, competitiveness, quality of management decisions, etc.).
- *Other methods - methods*, whose main functions are not in the prediction or diagnosis of consistency, but can theoretically be used for this purpose.

It seems reasonable to consistently disclose the contents of each of the methods for the evaluation of their fundamental characteristics, advantages and limitations.

The coefficient methods. In business practice, the improvement of methodological base coefficient methods held parallel to the development and establishment of a market economy that can be traced on the basis of, in particular, the content of regulations, devoted to the problems of diagnosis insolvency organizations, both directly and indirectly.

In accordance with these regulations the decision on the recognition of the consistency is taken on the basis of the coefficient of current liquidity and equity ratio. If one of the indicators reflects the value below regulatory limits for the establishment of insolvency is also necessary to calculate the coefficient of restitution solvency of an economic entity. The results are compared with a decision table, which is set based on the fact of recognizing an unsatisfactory balance structure, then company refers to one of the groups listed in Table 3-1.

Table 3-1 Assessment of viability and solvency of the company

CR	**OFR**	**SLR**	**GPR**	**rules**					
≥ 2	≥ 0,1	≥ 1	-	+					
≥ 2	≥ 0,1	< 1	-		+				
< 2	< 0,1	-	≥ 1			Y+			
< 2	< 0,1	-	< 1				+		
≥ 2	< 0,1	-	≥ 1					+	
< 2	≥ 0,1	-	≥ 1						+
1. Recognition unsatisfactory balance sheet structure and organization insolvent delayed for up to 6 months						+		+	+
2. The decision on the recognition of the balance sheet structure poor and insolvent organizations cannot be accepted				+					
3. The structure of the balance is satisfactory, but the organization shall be registered in the federal administration of the insolvency proceedings					+				
4. Poor balance sheet structure, the organization insolvent							+		

Source: Authors, 2016

The basic idea inherent in the mechanism of these models is the hypothesis that the risks of the enterprise must inevitably appear in changing the dynamics of the group generally accepted in the financial analysis of indicators calculated on the basis of the financial statements of the company. It is reasonable to expect that with a significant deformation of the enterprise balance sheet structure, we can expect growth of the company's risk in relation to the fulfillment of obligations to its counterparties. Since the financial statements contain in addition to time slice of the property status of additional data on state revenue and expenses of the company and the aggregate cash flow calculation of the coefficients allows us to describe many aspects of the company.

The undeniable advantage of this approach include the relative simplicity of the calculation criteria. Even if the chosen method has several dozen indicators, modern software allows fast enough to calculate all of them with the appropriate data.

Disadvantages of such methods are also well known. Firstly, do not always coincide in the various sources of the formula for calculating the same factors, which naturally affects the normative values of the indicators and their interpretation difficult. It must also be noted significant differences in the composition criteria, which are allocated to the various techniques in evaluating the viability of the organization, despite the fact that the data on the comparative effectiveness of different techniques absent.

In addition, not all of the coefficients reflect their recommended values, so the calculation of the majority of them from a content point of view, can only reflect the dynamics of the time indicator changes (unless obvious negative situations). The systematic collection and analysis of business data by industry would avoid this problem, but inevitably the question arises on the basis of what principles to determine the value of a specific regulatory factor. With all this, the cost of failure with the incorrect level of normative values is high, because it can significantly distort the information on the solvency of the organization.

Suppose that there is a small enterprise LLP "Biochim", producing one product (say, soap) in the market of daily consumer goods. Let us assume that the existing capital power are small, and the production line operates more than a dozen years, and therefore, the degree of moral and physical wear and tear is high. Simplified balance sheet at the end of last year were as follows:

Table 3-2 Simplified balance sheet LLP "Biochim" at the end of the "N" and "N + 1" yy., In millions. tg.

Assets	**N+1**	**N**	**Liability**	**N+1**	**N**
Fixed assets	60	110	Capital and reserves	20	20
Current assets	90	990	Long term duties	80	40
			Short-term liabilities	550	40
Balance sheet (assets)	150	1100	Balance sheet (liabilities)	1150	100

Source: Authors, 2016

Based on the provisions of the procedure we make the calculation of the current liquidity ratio and own funds CR = 2.25, OFR = 0.11, Since CR> 2, and OFR> 0.1, there are no signs of insolvency.

Assume that the company decided early next year "N + 1" planned to invest in the production and purchase a modern line for the production of soap. The aggregate cost of the line taking into account the supply, installation and commissioning of the equipment is 50 million tenge loan value was taken to purchase the line equal to the cost of the line, from which 10 million need to return back to the same year, and 40 million the next.

The result of the operations carried out by the company is that the company in accordance with the procedure becomes insolvent. Current ratio = 1.85 (<2), turnover ratio of own funds <0, restoring the solvency ratio is 0.79 (<1). All three values are less than the standard indicators that should characterize the enterprise as insolvent and untenable. From this we can conclude that in accordance with this method of investing in the production of a negative impact on the solvency of the company, if they are not carried out from its own sources of funds thus used technique may significantly overstate the risks of the analyzed companies.

Finally the last, from the methodological point of view, the lack of coefficient method is, in some cases, significant uncertainty in decision-making on the organization of insolvency if the criteria reflect the conflicting results and dynamics. It is generally considered that the factors of profitability, liquidity and solvency are the most important among others. However, what is the priority level when there is a conflict between them? Are liquidity criteria more important than profitability ratios? On the one hand, liquidity characterizes the solvency of companies with a high degree of accuracy, but the amount of current assets value is very unstable, so these data tend to quickly lose relevance over time. It is known that the profit figures are often manipulated by the management of the company, but on the other hand, reflects the profitability of asset management quality. These shortcomings lead to the fact that the reliability of the analysis using the coefficients are unreliable, though, and can give correct results in bankruptcy prediction.

Given the diversity of the criteria used in various techniques, the task of determining the best available combination of factors in order to assess the viability of the organization has become an urgent task of financial analysis. The development of the application of econometric methods in economic theory has led to the creation of a class of multifactor models that try to answer this question, we will consider further.

Multivariate models of bankruptcy prediction. Trying to improve the bankruptcy prediction model based on econometric data evaluation methods first successfully implemented E. Altman. To determine the indicators and their weights for predicting viability of organizations, a professor at New York University used a multiplicative discriminant analysis. Pre-selecting the similar enterprises of the manufacturing sector, 33 of which are bankrupt later became, and 33 continued to operate stably, Altman calculated based on discriminant analysis linear combination of financial ratios, which are with the best degree of accuracy attributed investigated enterprise to one of two groups: the wealthy or insolvent companies . As a result, a well-known model was obtained, which is calculated by the following formula:

$$Z = 1{,}2X_1 + 1{,}4X_2 + 3{,}3X_3 + 0{,}6X_4 + 0{,}999X_5$$

Where

X_1 - the ratio of current assets to total assets;

X_2 - the ratio of retained earnings to total assets;

X_3 - the ratio of retained earnings to total assets;

X_4 - the ratio of the market value of the shares to the book value;

X_5 - the ratio of net profit to total assets;

Error of the first kind in the model accounted for about 5%. In order to ensure that the quality of predictive power does not depend on the sample, E.Altman replaces the original set of business model to another. The results showed that the predictive strength increased compared with the original sample of approximately 1 percent. Highlighting the so-called "Gray zone" (Z-value of the account assigned to companies, whose affiliation to one of the groups model predicted incorrectly), E. Altman identified two thresholds to assess the viability of the organization, "1.8" and "2.99" that differentiate the company into three groups:

Table 3-3 Evaluation criteria of financial stability on the basis of Z-account Altman

Z- score	< 1,8	1,81-2,99	> 3,0
The rating of the company	Insolvency	Uncertainty	Solvency

Source: Altman, 1968

Estimates made on the basis of this method, are deprived of a number of the drawbacks of a coefficient: the number of fixed criteria used, and their selection is based on the best distinction of two groups based on the discriminant analysis. Calculation of Z-counting does not require considerable effort and according to the results gives a 95% match to one year ahead and 72% in the second year.

However, the method has a number of drawbacks. Its effectiveness is based on a sample of enterprises and the use of the original model for the emerging economies can produce distorted results. In this connection, the highest efficiency of the model can be ensured only if the sample of enterprises regularly update and adjust the coefficients of the variables, but in this case one is lost model of the main advantages: simplicity and speed calculations.

Later, there was a lot of attempts to use econometric techniques to build more efficient models of bankruptcy companies. The most famous of them, in addition to the above models, E. Altman, for public and non-public companies, have become a model Chesser, P. Fox, W. Beaver, a joint model Tafflera R. and G. Tisho. In the Russian scientific community were also developed similar models: R. and H. Saifulina Kadykova, Irkutsk State Academy of Economics and model O. Zaitsev. The techniques used to develop models that differ significantly in this respect, a serious manner, and also different set of coefficients used in the model (see. Appendix 2). According to the study, a team of authors spent the HSE Nizhny Novgorod, the use of heuristic methods in selecting the coefficients to assess the viability of the organization can also be effective in building a correct model of bankruptcy prediction.

The presence of the above leads to the nuances of what some scholars have come to the conclusion that the use of multifactor criteria for evaluating viability of the organization is extremely inefficient in Kazakhstan. A possible way to eliminate the disadvantages is to check the viability of the organization in several models. However, it should be noted that this approach can hardly be considered correct, as in the construction of various models incorporated different approaches to the selection factors and their weights. When creating models, different researchers have used different sample of firms, so focus on the A consensus-evaluation in our view, inappropriate.

An important problem of uniting coefficient and multivariate techniques is the lack of accounting in these qualitative indicators that would determine the development of the enterprise is fundamental for many years. In addition, in fact, bankruptcy multifactor models do not take into account the dynamics of changes in performance over time, and the company therefore does not contain information about the trends that are taking place in the company. Eliminate the gap trying qualitative analytical methods.

Qualitative and analytical techniques. The need for the study of individual characteristics and economic activity of the companies that are not shown in the financial statements, led to the creation of techniques that would allow to judge the viability of the company, taking into account non-financial parameters.

However, the consideration allocated to the data techniques of business activities, shows a significant difference in the set of events that, in accordance with the said documents, play a role in evaluating the consistency of the organization.

Formalize the procedure of decision-making is a well-known A-score Argenti, which highlights seventeen factors characterizing a qualitative point of view the situation.

In accordance with this approach, the company before faced with serious financial difficulties, have certain features that determine the incorrect management decisions. Their presence indicates the occurrence of the three types of problems, which can later lead to the bankruptcy of the company - weaknesses, errors and symptoms. Author methodology considers that before becoming insolvent companies go through three of the designated period. The analyst's task is to assess on a scale Argenti how much corresponds to the position of the company claims as specified in the procedure. On the basis of the generated total, the company belongs to one of the groups: low risk (25 points), medium risk (25 to 34 points, bankruptcy within 5 years), high risk (over 34 points).

The disadvantage of this class of models is primarily attributable to a high degree of subjective assessments. Thus, the degree of "authoritarian" leader essentially depends on expert perceptions of what is "authoritarian" behavior. How to determine the lack of motivation of employees with the exception of cases, completely obvious? What is meant by the deterioration of financial performance (what specific and how much)?

It is also part of questions and criteria to assess the quality of the company's management. In the original method in the first group of indicators, eight points, directly or indirectly related to the situation in the company's board of directors. This factor does play a major role, if we are talking about the North American method of governance, where the owner, as a rule, does not control the company directly. In Kazakhstan conditions, where the practice of the separation of ownership and management of companies is not widespread, the role of the company's management body plummets. The methodology reflects poorly indicators characterizing the current position of the company in the market and successful cooperation with partners. From the standpoint of evaluation of the quality control, the method does not account for such factors as the free horizontal and vertical distribution of information within a company, selecting staff efficiency and effects positive or negative selection.

These defects are typical of such models, because the formulation of such techniques inevitably runs, on the one hand, with a limitless number of characteristics that describe the activities of the company and, on the other hand with the need to allocate a limited set of the analyzed parameters. Given the fact that at this point in the management theory the question of what factors are key in determining the stability of the operation of businesses remains open, and the criteria for the composition of such methods will inevitably be controversial.

Other methods of viability assessment. Analysis of the effectiveness of the economic entity is not limited to the above methods. The practice of evaluating the effectiveness of the company based on the calculation of certain integral indicators is one of the most important elements of modern finance theory. Among them, it is worth noting assessment model generated value added, the profitability of activities, as an indicator of quality of asset management, the analysis of the cost-volume-profit (CVP-analysis) and others. They all have their own advantages, but it is worth noting that the purpose of the creation of these models was not an assessment of the consistency of the organizations. These figures do not reflect or assess the risk of the company that might occur in the future and therefore cannot give qualitative characteristic consistency in general, so their use can certainly be recommended only for accessories, but not the primary tool in assessing the probability of bankruptcy company.

As shown by an analysis of the methods, the most common models have a number of limitations to the application. The result of this is that their use as a tool for decision becomes quite inconvenient or unreliable in practice. From the point of view of external analysis firms, these techniques can be used as a risk assessment function interactions with external counterparties. However, if you put the task of predicting failure, managed enterprise, studied techniques in their original form find their weakness, because the model does not contain any information about how large the risk of lack of liquidity did not plant. In particular, the MDA model Altman does not will determine how great the risk of bankruptcy in case it fell into line with the criteria in the "zone of uncertainty".

It is also not everything went smoothly in terms of identifying risk reduction measures on the basis of the described techniques. Thus, in the case of the multivariate model-making sphere lies in enhancing the values of a number of factors, the basis of the methods of qualitative analysis of solvency of the enterprise, in order to reduce risks may be required, such as "plan" reduction of autocratic behavior on the part of the general manager of the company manager. Thus, in accordance with the model it will be more effective than, say, improving the dynamics of the financial statements. The question of whether this approach is possible and productive in practice, remains, in our view, debatable.

In order to be of practical value, the consistency of methods of forecasting organizations must be based on the basis of the financial planning of the company, in order to take into account the future consequences of investment decisions. Only by taking into account the expected values of revenues, expenditures and changes in the company's balance sheet, it will be possible to achieve more significant progress in the field of bankruptcy prediction. Development organizations solvency evaluation unit on the basis of the financial planning, taking into account the effect of uncertainty factors in the company's activities will focus on the following paragraph.

3.2. Vector method of forecast probability of bankruptcy

There are two main approaches to the evaluation of the probability of bankruptcy. The first is based on the financial data and includes the manipulation of quantitative indicators (financial ratios). This multivariate regression models that take into account changes in the field of financial management and economy, capital markets and other factors. The second approach to forecasting the bankruptcy proceeding from statistics of changes in the indices of bankrupt companies and comparing them with corresponding data researched organizations. In both approaches, the key is to select the optimal number of important financial ratios to ensure the required reliability and accuracy of the assessment of the probability of the forecast.

The main methods and models used in the foreign and domestic practice of assessing the financial condition and forecasting of bankruptcy are:

Z-score Altman, E.; five-factor model of E. Altman; 7 factor model E. Altman; W. Beaver factor; Model D. Conn - M. Golder; 9 factor model Fulmer; Springeyt´s model; scoring method Credit-Men J. Depalyan; Z-Score formula of Fox; Taffler´s model and Tisho; Model Okha – Verbaer´s; Chester Model; credit rating of the borrower (France); valuation method financial condition D. Van Horn; indicator D. Argenti; rating model RS Saifullin´s and GG Kadykov´s; guidelines of the Federal Service Russia for Financial Recovery and Bankruptcy; 6 factor model OP Zaitsev´s; Model scientists Irkutsk state economic academy for commercial enterprises; G. Chonaeva´s model; ranking-score assessment methodology G.V. Savitskaya; Model scientists of the Moscow State University of Printing; Model N.V. Pchelenok – M.M. Petrikin for agribusiness organizations; Scientists model of Nizhny Novgorod Branch of the National Research University "Higher School of Economics" [3].

Currently, there is no consensus about the optimal number of financial ratios of multifactor models of forecasting. For example, E. Altman started with the development of two-factor models. Then, based on surveys of enterprises and 66 research 22 financial coefficients them five-factor model of forecasting has been proposed.

Based on the data of 60 companies (30 crash victims and 30 normal working) with an average annual balance of 455tys dollars. Fulmer was created a model that initially contained 40 factors, whereas its final version uses only nine.

As a rule, the choice of the necessary number of significant coefficients of multifactor models of forecasting carried out by experts. Unfortunately, the number of experts who participated in the examination, in the literature are often not given. Of the methods of probability theory known that the minimum reliability of a given model of reliability is required at least five experts.

Here are examples of peer review.

Example 1 25 experts from 36 financial ratios have chosen those that, in their view, provide a glimpse of the high probability of bankruptcy. As a result of compilation and analysis of the survey data in the four-factor has been allocated, which, according to most experts surveyed, are indicators of a crisis state of agro-organizations:

- financial leverage ratio;
- current ratio;
- a ratio of its own working capital;
- equity ratio.

Example 2: To determine the structural composition of the model prediction by scientists of the Irkutsk State Academy of Economics conducted a survey of directors of 80 commercial non-governmental organizations of Irkutsk, in which the 13 most popular financial ratios to assess the current status and activities of the commercial enterprise has been defined. After testing the independence and homogeneity of the values of these indices composition model it has been reduced to four financial ratios. On the basis of their average values from a sample of 21 of the liquidated enterprises and 29 enterprises to continue their work, it was determined by weight indexes included in the model of financial ratios. As financial ratios models bankruptcy risks of the forecast were taken following:

- the share of working capital in assets;
- return on equity (ratio of net income from all activities to the average cost of equity);
- asset turnover;
- the profitability of current expenses (the ratio of operating profit to Cost of sales of products).

Example 3 offered expert analytic hierarchy process in selecting relevant financial ratios for the prioritization criteria for viability assessment, among the totality of which are highlighted: the degree of solvency current liabilities, profitability of working capital, production and sales. Unfortunately, the number of experts do not specify.

Example 4 based on the analytic hierarchy process and econometrics of 36 financial ratios methodology for assessing the solvency of the organization selected five financial ratios models:

- current ratio;
- capital productivity criteria;
- profitability of core activities; net margin;
- the ratio of current assets to liabilities.

The number of experts who participated in the examination of the method of analysis of hierarchies, also not shown.

In most of the proposed model includes factors - financial ratios that are inherently interdependent (multicollinearity), since, by definition, in its composition have common financial indicators. A good example - the relationship (correlation) of such financial ratios as current ratio and a ratio of its own working capital.

The following should be noted. In the above example, the first coefficients are mutually interdependent financial leverage ratio and equity ratio; current ratio and a ratio of its own working capital.

In the second example in pairs interdependent factors are factors the share of working capital in assets and asset turnover; return on equity and return on current costs. In the third example of interdependent factors are all the factors.

In the fourth example of interdependent factors are the current ratio and the ratio of current assets to liabilities. These financial ratios as a measure of return on assets, return on operating activities and net income margin - all together and are interdependent.

There are examples of models where financial factors - factors conventionally are not interdependent. For example, two-factor model of E. Altman, which includes the total coverage ratio and gearing ratio. Or simulated Moscow State University of Printing Arts. Included in the model of financial ratios of current liquidity and autonomy can also be considered conditionally not interdependent.

In 1997, British scientists R. and G. Taffler Tisho based on analysis of the key dimensions of the corporation (income, working capital, financial risk and liquidity) proposed a four-factor model predictive solvency, reproducing, according to experts, the most accurate picture of the financial condition:

$$Z = 0{,}53\ K1 + 0{,}13\ K2 + 0{,}18\ K3 + 0{,}16\ K4$$

where

K1 - profit from the sale / short-term liabilities;

K2 - current assets / liabilities;

K3 - current liabilities / total assets;

K4 - revenues / total assets.

The value of Z-score greater than 0.3 indicates that corporations are good long-term prospects. If it is less than 0.2, bankruptcy more than likely.

However, this model also has certain disadvantages. In this model, we are clearly interlinked financial ratios K1, K3 and conditionally not mutually interdependent factors K1 and K2, K2 and K3.

It should be noted that at the present time is an actual problem of finding enough of a universal approach to building a sufficiently credible and reliable bankruptcy prediction models. One reason is the following. Most of these models used by financial ratios (indicators) are often interdependent (multicollinearity). Many of the models were obtained by multivariate regression analysis. Meanwhile it is known that in order to ensure the required reliability of the regression multivariate model requires a set of linearly independent, not interrelated factors, not multicollinear. And this is the authors in constructing models provide is not always possible due to various objective reasons. As a result, forecasting reliability and validity is reduced. There is a problem of finding new, better and more reliable bankruptcy prediction models.

When calculating the regression model parameters is necessary to have a representative statistics of financial indicators, which must be statistically uniform in the organizational and technical level of the organization, the type and volume of economic activity, the period of time for which the analysis is carried out, etc.

To review the 25 most famous used forecasting models showed that the most common models are encouraged to use information presented in Table 3-4.

Table 3-4 Main indicators used in bankruptcy prediction models

Index	Frequency of use	
	Number	Percentage of the total
All assets	21	15,44
Earnings (net profit)	20	14,71
Current assets (working capital)	15	11,29
Revenues from sales	13	9,56
Current (short-term) liabilities	12	8,8
Equity	11	8,09
Borrowed capital	8	5,88
Fixed assets	5	3,68
Cost price	5	3,68
Long-term liabilities	4	2,94

Receivables	4	2,94
Retained earnings	3	2,2
Total liabilities	3	2,2
Liabilities (long and short)	2	1,47
Stock	2	1,47
Capital-productive investment	1	0,73
Total investment	1	0,73
Profit Trends	1	0,73
The duration of the loan providers	1	0,73
The duration of the commodity credit	1	0,73
Average monthly revenue	1	0,73
The most liquid assets	1	0,73
Cash flow	1	0,73

Source: Economic Analysis: Theory and Practice, 2011

In these models, the most commonly used financial ratios, sometimes with maximum in one or another model significance (Table 3-5).

Table 3-5 The significance of financial ratios models

Coefficient	**Frequency of use**	**Repeatability of maximum importance, since**
He total coverage ratio (Current ratio)	10	6
Net working capital / total assets	6	2
The financial dependence	6	
Balance profit / revenues from sales	5	1
Profit / total assets	4	2
Proceeds from sales / assets	4	
Coefficient of autonomy	3	1

The coefficient of financial leverage	3	
Retained earnings / total assets	3	1
Return on equity	3	
Critical factor (quick) liquidity	3	
Net profit / revenue	2	
Current assets / liabilities	2	
Return on assets ratio of productive capital	2	
Profit from sales / current liabilities	1	1
Net income / assets		1
The degree of solvency for current obligations		1
Gross profit / Equity		
Absolute liquidity ratio		
The coefficient of coverage of internal funds		
Net income / cost of production		
Interim coverage ratio		
Return on working capital		
Product Profitability		
Profitability of core activities		
Solvency ratio (shareholders' equity / liabilities)		
The coefficient of immobilization of equity		
Inventory turnover ratio		
Turnover ratio of receivables		
Proceeds from sales / balance		
Cash flow / liabilities		
Long-term liabilities / Balance		
Short-term liabilities / Balance		
Profit / liabilities		

Source: Economic Analysis: Theory and Practice, 2011

A large number of the indicators and financial ratios due to the nature of different types of economic activities, technical and organizational level of the organization.

Analysis of the composition of the proposed models and the data in Table 3-5 leads to the following conclusion, that at least 25-30 groups of experts consider it appropriate to include in their proposed model, a number of factors from the existing 35-40 financial ratios based on 2025 financial results.

The foreign and domestic practice, the most frequently used and important in the bankruptcy prediction models are the following financial ratios: the overall coverage ratio (current liquidity); own working capital / total assets; gearing ratio (modification - equity ratio); tax profit / revenues from sales; revenues / total assets; profit / total assets; return on equity; gain / current liabilities; financial leverage ratio.

In practice, the coefficients of the profitability of productive capital can be used quite often, the return on assets of productive capital, a critical (quick) liquidity.

If we analyze the list of indicators recommended in the methodological instructions of the Kazakhstan Service for Financial Recovery and Bankruptcy, it can be concluded that the number of these non-interacting combinations of indicators and the number of the indicators themselves in varying combinations is small.

Given the fact that most often offered by financial factors in the regression model should be to the same and mutually independent (not multicollinearity) can offer several options (combinations of) structural component factors - financial ratios models.

Option 1: the average revenue / current liabilities K1; equity ratio K2 K3 profitability of fixed assets

Option 2: K3 profitability of fixed assets; current ratio K4; Turnover equity ratio K5.

Option 3: The current ratio K4; K6 profitability of equity capital; turnover ratio of fixed production assets K7.

If we assume that the relationship between the coefficients K4 and K2 is sufficiently small, it is possible to construct models of the coefficients.

Option 4: the coefficients K2, K3, K4.

Option 5: the coefficients K2, K4, K7.

Let's make some assumptions. Assuming that all of these financial ratios are equally important (same weight). To a certain extent this is true, as selected financial ratios are most often used in regression models (Table 3-5) and no multi collinear (mutually independent) are in proposed models. In general, the weight specified parameters can be received in the future, for example, by analysis of hierarchies. Such assumptions are made, for example, in the rating model RS Saifullina and GG Kadykova, as well as in the league-scoring assessment methodology GV Savitskaya. In these models, financial ratios have the same value and make the same contribution to the effective index of the respective models.

The proposed multi-factor regression models represent the statistical relationship feature values effective value of the sum of factors - financial ratios. Strictly speaking, such models are not deterministic. Diagnosis of insolvency on the basis of a regression model does not allow to evaluate the reasons for entering the organization in the area of insolvency. In other words, to determine the effect of varying factors on the change in the effective sign. The use of a deterministic factor analysis applied to this rating model is incorrect.

Diagnosis of insolvency on the basis of the rating also does not assess the reasons for entering the organization in the area of insolvency. Rating model, presented in the form of an algebraic sum of factors, not the model obtained in the form of analytical (deterministic) formula. The use of a deterministic factor analysis applied to this rating model is also incorrect.

As a means for solving problems in the study of influence of factors - financial indicators to assess the probability of bankruptcy it is proposed to use the vector model-length vector in the space of the relevant financial indicators (mutually independent financial ratios).

Using the vector model, where the effective length of the vector index, introduced in the factor model deterministic. Thus makes it possible to use the methods of deterministic factor analysis.

Represented as a vector of length each of the five model variants. The multiplier 57.735 represented by the formula selected for the calculation of a hundred point scale. The index of "nom" designated nominal value of the relevant factors.

For a statistically homogeneous groups of organizations belonging to the same organizational and technical level, the type and volume of economic activities, period of time and with a normal financial condition (low, minimum probability of bankruptcy), the nominal value can be different and are determined based on statistical research. In determining the level of nominal values can be based on the average values of the corresponding coefficients, calculated on the basis of evidence of similar organizations of one kind of economic activity.

These values can be taken as the nominal coefficients models in the analysis of the financial condition of the industrial organizations (Table 3-6).

Table 3-6 The Coefficients

Coefficient	**The value of the coefficient**
K1	0,333
K2	0,6
K3	0,2
K4	1,5
K5	15
K6	0,07
K7	18

Source: Economic Analysis: Theory and Practice, 2011

There was a comparative analysis of the probability of bankruptcy prediction capability on the basis of the proposed model and the author of some of the existing ones. The Open Joint Stock Company of chemical industry was selected as an object. The analyzed period - three years.

Nominal values are taken from Table 3-6. The initial data are shown in Table 3-7.

Table 3-7 Initial data for 2007-2009. Models for calculation

Index	**2007**	**2008**	**2009**
Current ratio K4	1,096	1,035	0,8734
The financial dependence	0,722	0,6762	0,7
Net working capital / total assets	-0,0837	-0,04127	-0,2112
Retained earnings / total assets	0,04139	0,1183	0,05755
Earnings before interest / total assets	0,0591	0,1339	-0,0785
Shareholders' equity / debt capital	0,39	0,5271	0,5303
Revenue / total assets	2,723	2,717	2,251
Profit from sales / current liabilities	0,02796	0,1902	-0,1397
Current assets / liabilities	0,884	0,9389	0,6991
Short-term liabilities / total assets	0,5825	0,6136	0,5619
Revenue / total assets	2,723	2,717	2,251
K1	0,3895	0,3689	0,3338
K2	0,278	0,3238	0,298
K3	0,021	0,2269	0
K5	9,929	9,6193	6,726
K6	0,0271	0,2558	0
K7	7,528	8,006	4,852

Source: Economic Analysis: Theory and Practice, 2011

The calculation results from the known and the proposed model are presented in Table 3-8.

Table 3-8 The results of the calculations and forecasts for 2012-2014

Model	**2007**	**2008**	**2009**
Two-factor Model E. Altman	-1,523.The probability of bankruptcy is much less 50 %	-1,455.The probability of bankruptcy is much less 50%	-1,2849. The probability of bankruptcy is much less 50%
Five-factor model of E. Altman	3,1065. The probability of bankruptcy is low	3,5916. The probability of bankruptcy is low enough	1,976. The probability of bankruptcy is significant
Model Taffler and Tisho	0,6664. Good long-term prospects, bankruptcy unlikely	0,768. Good long-term prospects, bankruptcy unlikely	0,4782 Bankruptcy is unlikely
L1	73,57average probability of bankruptcy (less 30%)	96,67. The probability of bankruptcy minimum (less 10%)	64,54. The probability of bankruptcy is above average (40 %)
L2	57,22. The probability of bankruptcy is high enough (50%)	85,13. The probability of bankruptcy is low (20%)	42,43. The probability of bankruptcy is very high (50 %)
L3	51,34. The probability of bankruptcy is high enough (50%)	82,75. The probability of bankruptcy is low (20%)	43,88. The probability of bankruptcy is very high (more 50 %)

Source: Economic Analysis: Theory and Practice, 2011

Based on the analysis data of Table 3-8 it can be argued that Taffler Tisho model and gives less accurate prediction compared with model L2.

According to the financial analysis, the subject organization is currently in the pre-crisis state. In 2010 I experienced the effects of the global economic crisis since worked largely for export. In the author's opinion, more reliable forecast was prepared on the basis of model L2.

In conclusion we can draw some conclusions and proposals for improving the reliability of the vector of bankruptcy prediction models.

Financial factors - factors models should not be multicollinearity.

In certain vector model can be used depending on the specific, technical and organizational level of the economic activity of the organization.

To be determined nominal values of financial ratios for companies, statistically homogeneous organizational and technical level, and the volume of economic activity.

It is necessary to update the values of the weighting factors in the assessment of the significance of component factors of vector models.

Use of a hundred point scale in vector models allows graduation to differentiate the level of financial condition of the company. Thus, the degree of detail the financial condition, to quantify the probability of bankruptcy prediction.

3.3. The main directions of the prevention of bankruptcy and reorganization of enterprises

An integral part of the market economy is the institution of bankruptcy. It serves as a powerful incentive efficient operation of business organizations, while ensuring the economic interests of the creditors, as well as the general state of the market regulator.

In world practice, bankruptcy legislation was originally developed in two fundamentally different ways. One of them was based on the British model, the principles of which considered bankruptcy as a way to return debts to creditors, which was accompanied by the liquidation of the bankrupt debtor. Another beginning was laid in the American model. The main objective of the legislation here is to rehabilitate the company to restore its solvency. However, in the present conditions in the legislation of developed market countries can be traced to the convergence line, the combination of the above principles. In any civilized country with a developed economic system, one of the main elements of the legal regulation of market relations mechanism is the legislation on insolvency (bankruptcy). At the moment, our market economy characterized by phenomena such as the decline of industry, economic crisis, lack of investment, the tightening of monetary and credit relations, which will undoubtedly lead to the insolvency of economic entities. And before entrepreneurs. The relevance and practical importance of the theme of the abstract is due to several reasons. Firstly, at the moment, the economy is a key problem of non-payment crisis, and a good half of the enterprises should have long been declared bankrupt, and the funds reallocated in favor of efficient production, which would undoubtedly contribute to the improvement of the market. Secondly, the problem of bankruptcy lawyers have to face every day more and more, and literature, illuminating detail the question is not enough. The roots of the institution of bankruptcy goes into the distant past. The first echoes of the competitive relationship to be found in Roman law.

Failure to comply with the return of the loan, the debtor acted in a personal order of the creditor, the latter had the right to kill the debtor and cut his body into pieces. With the passage of time in Roman law there rules entitling the lender to foreclose on the property of the debtor, but, nevertheless, this did not absolve him from the personal debt of violence.

Since the inception of private property, existing laws have never been merciful to insolvent debtors. In ancient and feudal times, for example, for a long time as a guarantor of security for the repayment of debt was ns property and the debtor himself, his life, liberty and security. Thus, in Roman law in the 12th century it was recorded that the creditors did not receive the satisfaction of their claims, the debtor shall have the right to cut into pieces. In Norway, an ancient right to authorize the lender to cut off the insolvent debtor or that part of his body. The law "On Bankruptcy" must fulfill three basic functions:

1. To serve as a mechanism to avoid unproductive use of business assets.
2. Being a tool of rehabilitation enterprises, which were on the verge of bankruptcy, but have significant reserves for successful financial and economic activities in the future. As a rule, such rehabilitation provides financial reorganization.
3. Contribute full payment of debts to creditors. During the transition period to a market economy provisions of the Law "On Bankruptcy" with respect to state-owned enterprises should be somewhat loyal to prevent shown great wave of bankruptcies. Since the recognition of the debtor bankrupt:

- suspended business activities of the business entity;
- the liquidation committee to go right to dispose of the property of the bankrupt;
- considered such that the expired terms of all debt of the bankrupt;
- ceases accruing penalties and interest on all types of debt.

Essential is also the fact that the arbitral tribunal may admit avoid any agreement regarding the sale, perfect for three months before the initiation of bankruptcy proceedings the debtor's property, if it is carried out in the interests of the debtor. Furthermore, it can be canceled any agreement incurring obligations for one year prior to the debtor with respect to the sale of property or production of a bankruptcy case, if the sale of assets carried out with the aim of concealing or non-payment of debts if the debtor as a result of implementation of the agreement was much less than the real cost of the agreement, and if the debtor at the time the agreement was in fact already insolvent, or became insolvent as a result of the execution of this agreement.

In order to pay off debts, the liquidation commission is taken and evaluated all the property of the bankrupt. For property that is sold at auction, the estimated value is initial. The proceeds from the sale of the bankruptcy estate, go on satisfaction of creditors' claims. The first covered the costs associated with the conduct of the bankruptcy proceedings of the arbitral tribunal and the work of the liquidation commission. Furthermore, the claims of creditors secured by a pledge. Second, to fulfill obligations to employees of a bankrupt enterprise (on the production results). Third, the claims on state and local taxes and fees and requirements of bodies of state security and social welfare. Fourth, the claims of creditors, unsecured guarantee. In the fifth, the claims of the members of the staff regarding the return of contributions to the statutory fund of the enterprise. The claims of each subsequent turn are satisfied after complete.

Meet the requirements of the previous turn, and in case of failure of equipment to meet the requirements of a single queue, the claim shall be redeemed in proportion to the amount belonging to each creditor. Moreover, the requirements unmet due to lack of funds, are considered to be redeemed and transferred into the bad debt. Bad debts are reimbursed by the insurance reserve and included in the gross expenses of the creditor.

Bad debts mortgagor, declared bankrupt, it shall be compensated as per the creditor's insurance reserve after adoption arbitration court decision on recognition of the debtor bankrupt. Facilities, obtained by the creditor as a result of the completion of the liquidation procedure and the sale of property the mortgagor shall be included in the gross income of the creditor in the tax period of their receipt. The property, which remains after satisfying the claims of creditors and members of the staff transferred to the owners of the company. If, due to the complete liquidation of the enterprise owners of corporate rights issued by such enterprise, receive funds or property the value of which exceeds the carrying amount of such corporate rights, the excess amount is included in the taxable income of such persons. In the case where the amount of money or value of the property is less than the nominal value of corporate rights, the amount of losses related to the gross expenses of the taxpayer in the tax period of receiving such compensation, but not before the period of full enterprise-issuer liquidation. Based on the results of its activities, the liquidation commission shall prepare a liquidation balance and submits it for approval to the arbitration court. If the results of the liquidation balance sheet to the claims of creditors of the property is not left, the arbitral tribunal shall issue an order to liquidate the legal entity - bankrupt. If the bankruptcy estate suffice to satisfy all claims of creditors, the company is considered to be free of debt and can continue its business activities.

Problems of restructuring and bankruptcy in the current economic crisis in Kazakhstan the situation is of particular importance. This is due to the fact that at the moment they are the only real and legitimate tools for business entities from a chronic state of insolvency, unprofitable, loss. Moreover, regardless of ownership, organizational and legal form, size of the enterprise, since the economic laws, like the laws established by the state, are not selective, and in the range of objects, controlled by them, will inevitably fall, or fall in the near future, a huge number of businesses and production associations. Based on the knowledge and correct understanding of the essence of the restructuring and bankruptcy as a possible form of implementation of the restructuring, it is possible to use existing legal mechanisms to overcome the financial and economic crisis on each particular enterprise. Speaking of restructuring in connection with the bankruptcy proceedings, usually have in mind the implementation of the restructuring of the authorized capital of company - debtor in the process of rehabilitation, that is, full or partial replacement of the owner of the enterprise. However, since such a thing as "restructuring" is actually much wider, even as a form of bankruptcy restructuring serves as one of the possible mechanisms of its implementation, including through the approval of the arbitral tribunal sanitation conditions of an economic entity.

Determination restructuring accordance with the regulations reads as follows: "The restructuring of enterprises - is the realization of organizational, economic, legal and technical measures aimed at changing the structure of the company, its management, ownership, organizational and legal forms that could lead the company to financial health, increase the volume of production of competitive products, increase production efficiency".

Since the purpose of the restructuring is "the creation of businesses that can operate effectively in a market economy and to produce competitive products that would meet the requirements of commodity markets", the legal forms and procedures of restructuring depends in many respects. In this regard, the bankruptcy can be compared with surgery - on the one hand - it is a radical and dangerous measure applied only in extreme cases, when exhausted all conservative treatment methods, on the other hand - this is sometimes the only possible way to recovery, the last chance to overcome hard disease. Speaking of bankruptcy institute, it must be borne in mind that any company, regardless of the form of ownership and organizational-legal form, carrying out business activities enters into a relationship with tax authorities, banks and other enterprises (suppliers by retailers and consumers of its products). In the course of these relations in the enterprise there are obligations, which if not by virtue of any objective or subjective reasons can lead to the fact that the company will become a debtor, the obligation to perform certain actions in favor of the lender - to make payment, to deliver the goods, perform works, to provide services. Each creditor has the right to demand from the debtor's performance of obligations, as well as compensation for losses incurred due to the failure or improper performance of obligations by the debtor.

Sanitation, as is known, consists of three main elements: an agreement between the debtor and the sanatorium of the transfer of the debt to the creditors' consent; harmonization of conditions of restructuring of the authorized capital; harmonization of conditions of payment of debts of the debtor and creditors between the sanatorium. As a result of the restructuring of the authorized capital is a change of ownership of the debtor. The new owner is taking measures for the development of the company provided for in the business plan, submitted to an arbitral tribunal. When choosing the optimal organizational and legal form for the enterprise business activities, Motels can reorganize the company: to convert the unitary enterprise into a business company, highlight structural units into separate legally separate companies. As a result of these measures, aimed at reducing the cost of production of certain types of products and their components, increase the economic independence of individual structures, units and production units are independent legal entities with their balance, their property - even if transferred to the operational management, its settlement and other accounts in banks.

Such an enterprise is liable for its obligations and is not responsible for the obligations of the brain company - founder. It is our experience of the anti-crisis program, it does often result in the possibility of economic and financial recovery company. Among organizational and legal measures, mentioned by me earlier as the forms and methods of restructuring, I mentioned the restructuring of accounts payable and receivable. Third rehabilitation element - approval enterprise debt terms to creditors - in effect, and is restructuring accounts payable, the set of designed and coordinated properly agreements between the sanatorium and its creditors on the procedure, terms and forms of separation amount of debt and its repayment within a certain period . This agreement can be implemented, including in the form of re-registration of the enterprise debt through the issuance of promissory notes and other debt instruments. Lenders may agree with the sanatorium of a certain discount on debt repayment.

Restructuring can also be an instrument of privatization of integral property complex or the state share in the authorized fund of a business entity. Sale of stakes in state-owned available at auction or tender under the specific obligations of the sanatorium for the development of the debtor, saving the number of personnel and the production profile of the company. In general, the reorganization can be considered as investment company- debtor. But even if the decision on reorganization was not adopted, and adopted a resolution on recognition of the debtor bankrupt, the liquidation committee activities carried out for the sale of bankrupt enterprise and its collection of accounts receivable for the payment of debts to creditors of the bankrupt enterprise, unless as a result, Company remains sufficient assets to continue economic activities, provided its statutes, these measures can have a positive effect. As well as the reorganization of the enterprise by the decision of the arbitration court, which may occur, for example, at the request of the owner of the enterprise. Thus, if we consider the restructuring within the meaning of the word, which was mentioned at the beginning of the report, that is, as a set of measures aimed at the financial and economic recovery of the debtor, use of legal mechanisms bankruptcy, which allows to achieve just such results can be seen in as a real restructuring of the instrument.

Conclusion regarding the liquidation of the enterprise through bankruptcy proceedings or the advisability of its reorganization on the basis of the analysis results. If the decision on reorganization of the enterprise, it is necessary to draft measures to reorganize. Restructuring project must contain:

a. the economic rationale for restructuring;
b. proposals on the forms and methods of restructuring;

c. solutions to the financial, social and other problems associated with the restructuring;
d. the costs of restructuring and their sources of funding;
e. the specific measures aimed at the implementation of the project.

Thus, the choice of various forms and methods of enterprise exit from the crisis depends on the expected results of their application, the necessary means and capabilities to attract them. The reorganization (restructuring) of an enterprise may include the following activities:

- replacement management company;
- partial or complete privatization;
- partial closure;
- a bankruptcy;
- split large enterprises into parts;
- separation of non-core businesses of structural subdivisions;
- exemption from the companies of social and cultural purposes;
- selling (or leasing) of the fixed assets of enterprises;
- sale of surplus equipment, materials, etc.;
- reduction in the number of commas in the enterprise.

The most important condition for a decision on the selection of specific reorganization measures is the existence of feasibility.

Study the feasibility of their implementation. During the restructuring of the company by its disaggregation required is the presence of business plans for new ventures. Terms of the reorganization of public enterprises through reorganization, complete or partial change in the ownership of its authorized capital, coordinated with the body authorized to manage state property, and the Antimonopoly Committee.

According to the Law of the Republic of Kazakhstan on bankruptcy.

1. Administrative costs – all costs related to the initiation and conduct of bankruptcy proceedings, rehabilitation procedures, extrajudicial liquidation procedure and an external surveillance, including the cost of paying for the services involved and specialized organizations, the amount of rehabilitation and bankruptcy trustee remuneration, as well as the administrator of external observation.

   The administrative expenses are equal taxes and other obligatory payments to the budget, the obligation to pay which arose during the liquidation of the debtor.

   The administrator of external observation – the person appointed in the prescribed manner to the procedure of external observation.
2. Bankruptcy – the debtor, insolvency is determined by a judge.
3. Bankruptcy – court decision recognized the failure of the debtor, which is the basis for its elimination.
4. Court procedure liquidation of the debtor - procedure for the settlement of the insolvent debtor's debt out of court by the debtor to achieve an agreement with creditors on its voluntary liquidation under the control of creditors and the authorized body.

   External observation - a procedure administered by the court in order to ensure the preservation of the debtor's property, to identify signs of deliberate and false bankruptcy, conducting due diligence, as well as actions (inaction) on the evasion of fulfillment of obligations to creditors, the control of the creditors of the state financial and economic activity of the debtor, holding their reorganization, settlement of transactions on alienation of property, transfer of property as a pledge or lease, as well as other transactions at prices significantly below market, or without good reason, the implementation of which may result in losses for the debtor;

5. Monetary obligation – the obligation of the debtor to pay the price set (transmitted) creditors of the goods (works, services), to return the loan amount to the payment of compensation (interest) for its use, as well as make payments for other cash requirements of nature.
6. Voluntary liquidation of the insolvent debtor – liquidation of the insolvent debtor based on an application by the court or the elimination of court under the control of creditors.
7. The debtor – legal entity, insolvency or bankruptcy of which is the ground of being subjected to external monitoring procedures, bankruptcy or extrajudicial liquidation procedure in the manner prescribed by law.
8. Official – head (deputy head) of the legal entity – the insolvent debtor and any other person, a member of the collegial executive body of the legal entity acting as a legal entity management.
9. Secured creditor – a creditor on liabilities, which claims secured by a pledge of the debtor's property.
10. Competitive mass – the property of the debtor, to which may be levied in the course of bankruptcy proceedings.
11. Bankruptcy proceedings – a procedure which is carried out in order to satisfy the claims of creditors and the bankrupt (insolvent debtor) free from debt.
12. Competitive lender – the lender does not have advantages in obtaining satisfaction of the property claims of any legal force or effect of the pledge agreement.

13. The bankruptcy trustee – the person appointed in the prescribed manner for the implementation of bankruptcy proceedings.
14. The creditor – the person having the debtor property claims arising from the civil – law and its other obligations, including on payment obligations, payment of social security contributions to the State Social Insurance Fund, the payment of royalties, taxes and other obligatory payments to the budget.
15. False bankruptcy – knowingly false body treatment – the debtor or the owner of the property to the court or authorized body for recognition of its bankruptcy with a view to giving creditors confusing for deferment or installment payments owed to creditors or discounts with debt, as well as for non-payment of debt at its capacity to satisfy the claims of creditors in full.

    Monitoring – a set of activities aimed at the collection, processing of information and analysis of financial – economic condition of insolvent and bankrupt companies in order to timely apply to them measures of financial – economic recovery and protect the interests of creditors.

If unable to reclaim property in cases stipulated by the present article, in connection with its loss, damage or followed it acquired in good faith by third parties to the original purchaser of the required property shall be liable to the debtor for compensation arising from these losses to the value of the lost, damaged, or good faith acquired the property by third parties.

Measures to overcome the crisis of the enterprise are divided into operational, which are designed to perform in the short term and strategic, aimed at developing and implementation general concept of financial recovery and development of the company in the long run.

Improvement of the financial situation of the company as part of the management and bankruptcy crisis states suggests a target selection of the most effective means strategy and tactics necessary for a particular case and a particular company. Studying the experience of overcoming crisis in many foreign and domestic companies (e.g. selected close the mine the coal department of JSC "ArcelorMittal Temirtau") allows us to formulate some general mandatory for every company procedure on the basis of which are the two most common types of tactics.

Defensive tactics based on the conduct of saving measures, which are based on the reduction of costs associated with the production and sales, maintenance of fixed assets and personnel, which leads to a reduction in production as a whole. It is used as rule, at very unfavorable combination of external circumstances. However, this is a tactic that can be effective for the individual companies, awaiting revival activity business and favorable market conditions, is unacceptable for the majority of enterprises. Obviously that the massive use of defensive tactics by most enterprises is even more profound crisis of the national economy and, therefore, does not lead to financial prosperity applying its business, which is understandable - after all the main causes of the crisis are outside the enterprise. Protective enterprise strategy is limited, as a rule, the use of appropriate operational measures: the elimination of losses, reduced costs, detection internal resources, personnel changes, strengthening of discipline cases attempt to settle with creditors (postponement of debts) and to suppliers and others.

A more effective offensive tactics, carrying not only operational as strategic activities. In this case, along with resource-saving activities are carried out active marketing, exploration and conquest of new markets, the establishment of higher prices, the increase in the improvement of production costs due to modernization, renewal of fixed assets, the introduction of advanced technologies.

At the same time there is a change or strengthen the company's management, carried out a comprehensive analysis and assessment of the situation, if necessary, corrected philosophy, the basic principles of the company, i.e. changed his strategy, whereby the revised production programs originate strengthening the position of the enterprise market and conquer new market segments, update the range of products. All this is reflected in the concept developed by the financial, production and personnel recovery, in accordance with which to make financial, marketing, technical and investment program that will improve the financial health of the company.

The whole set of crisis management procedures can be represented as the bankruptcy system. Under the bankruptcy system to understand a specific system of control, diagnosis and possible measures protection from financial ruin potentially viable enterprises-debtors experiencing serious difficulties in ensuring their solvency in the current conditions, as well as measures to protect the interests of creditors in the economic insolvency of the debtor.

The development of bankruptcy has three distinct stages: latent, financial instability and clear bankruptcy. Methods and approaches to the definition of the coming (or stepped) bankruptcy of symptoms for these different stages.

In the latent stage forecasting upcoming bankruptcy possible for 1.5-2 years before appearance obvious (obvious) signs. For this purpose, there are a number of methods of waste (for example, using the formula Altman, assessing the liquidity value of the company using the formula D.Uilkoksa). However, the use of most of them, including the most safe techniques, in our conditions is difficult because of the lack of developed secondary securities market and relevant information about their value.

For domestic enterprises is one of the possible formulas valuation (price) of the enterprise may be used. In this case, it is determined by the formula cap profits

$$V = \frac{P}{K}$$

where P - the expected profit before taxes and interest on loans and dividends; K - weighted average cost of liabilities (liabilities) of the enterprise. Defined as the average percent on loans and dividends, which will need to pay the creditors and shareholders in accordance with the conditions prevailing in the market (in terms of debt and equity).

The second stage - financial instability, i.e. the occurrence of difficulties in cash, some of the early signs of bankruptcy.

At this stage, management often resorts to the "cosmetic" measures, such as continuing to pay shareholders high dividends, increasing debt capital through the sale of the assets to remove suspicions of investors and banks.

Stage explicit bankruptcy comes with the emergence of a stable or chronic Insolvency enterprise. The company cannot timely pay the debts, and bankruptcy it is becoming obvious. A characteristic feature of the beginning of the stage of bankruptcy is apparent mismatch of inflows and outflows of funds, resulting in a complete failure of the enterprise on against to its creditors and investors. With the onset of the process of bankruptcy urgent necessary measures to stop the owner of the enterprise for its further development and the fall of a particular exit from this state program. The fact of bankruptcy, as well as the period and lines of action to resolve the relationship of the bankrupt enterprise with creditors, investors and Consideration of the Bankruptcy Law of RK enterprise business In this Law the following basic concepts about false bankruptcy.

Consideration of the Bankruptcy Law of RK enterprise business In this Law the following basic concepts:

- Consideration of the Bankruptcy Law of RK enterprise business.
- In this Law the following basic concepts.
- Bankruptcy – the debtor, insolvency is determined by a judge.
- Bankruptcy – court decision recognized the failure of the debtor, which ground to eliminate it.
- The authorized body in the field of bankruptcy (hereinafter – the authorized body) – the public authority exercising the state regulation in the field of bankruptcy (with the exception of banks, insurance (reinsurance) organization and accumulative pension funds).
- The debtor – individual entrepreneur or legal entity, insolvency or bankruptcy of which is the ground of being subjected to external monitoring procedure, rehabilitation procedure, bankruptcy proceedings, the debtor's liquidation procedure without instituting bankruptcy proceedings in the manner provided in this Act.

- Compulsory liquidation of the debtor – the cessation of activities of the insolvent the debtor, carried out by a court decision on the basis of statements of creditors, the public prosecutor.
- Inconsistency – established by the court the debtor's inability to fully satisfy the claims of creditors on monetary obligations, to settle the payment of labor with the persons working under an employment contract, to ensure payment of taxes and other obligatory payments to the budget, social security contributions to the State Social Insurance Fund, as well as compulsory pension contributions.
- False bankruptcy – Trick manager or owner of a commercial organization, as well as an individual entrepreneur on its insolvency for the purpose of misleading creditors for deferment or installment payments due to creditors or discounts with debt, as well as for non-payment of debts.
- Secured creditor – a creditor on liabilities, which claims secured by a pledge of the debtor's property.
- Bankruptcy trustee – the person appointed in the prescribed manner for the implementation of bankruptcy proceedings.
- Bankruptcy creditor – a creditor that does not have advantages in obtaining satisfaction of the property claims of any legal force or effect of the pledge agreement.
- Competitive mass – the property of the debtor, to which may be levied in the course of bankruptcy proceedings, as well as the property of other persons in the cases provided for in this Act.
- Bankruptcy proceedings – a procedure which is carried out in order to satisfy the claims of creditors and the bankrupt (insolvent debtor) free from debt.

- The lender – a person who has the debtor property claims arising from civil law and its other obligations, including on payment obligations, payment of social security contributions to the State Social Insurance Fund, the payment of royalties, taxes and other obligatory payments to the budget.
- Official – head (deputy head) of the legal entity - the insolvent debtor and any other person, a member of the collegial executive body of the legal entity, empowered to manage a legal entity.
- Monitoring – a set of measures aimed at the collection, processing and information conduct analysis of financial and economic condition of insolvent and bankrupt companies in order to timely application to them of measures of financial and economic recovery, and protect the interests of creditors.
- Rehabilitation manager – the person who sent in the order established by this Law, the authority to manage the property and affairs of the insolvent debtor for the period of rehabilitation procedure.
- Rehabilitation procedure – judicial procedure in which an insolvent debtor to apply any reorganization, organizational and economic, managerial, investment, technical, financial, economic, legal and other, which do not contradict the legislation of the Republic of Kazakhstan measures aimed at restoring solvency of the debtor to prevent its liquidation.
- Rehabilitation – rehabilitation measure, in which the debtor's property by the owner (authorized body), creditors or other persons insolvent debtor provides financial assistance and implemented a

range of measures to mobilize reserves debtor and improve its financial and economic situation.

The grounds for appeal creditor with a statement to the court to declare the debtor bankrupt is an insolvency of the debtor.

The debtor is considered insolvent if it has not fulfilled obligations within three months from the due date of its execution.

The basis for the appeal of the debtor a statement to the court for recognition of its bankruptcy is its inconsistency.

Having reviewed the court hearing the bankruptcy case, the court may take one of the following court decisions:

1. the decision to declare the debtor bankrupt and instituting bankruptcy proceedings;
2. the decision to refuse the debtor bankrupt;
3. determination of the application of rehabilitation procedure in the presence of the application;
4. a decision to terminate the proceedings.

The court decision on the recognition of the bankrupt debtor shall indicate:

- On the liquidation of the debtor.
- The request by the authorized body to appoint a bankruptcy trustee.
- The amount of claims submitted to the creditors appealed to the court before the decision.
- The transfer of officials of the debtor's constituent entities, financial and title documents on his property, as well as the printing of debtor bankruptcy manager no later than three working days from the date of his appointment.

The administrator appointed by the competent authority not later than five days from the date of entry into force of the court decision to declare the debtor bankrupt.

According to a creditor or authorized body of the court decision is made to initiate a case on the introduction of the procedure of external observation.

The procedure of external supervision in respect of the debtor may be administered for a period of three months to one year in the presence of:

1. the lender on taxes and other obligatory payments to the budget, or at least three creditors, including the applicant has agreed to use the procedure of external observation;
2. the debtor's insolvency.

In this case the applicant's request for the presence of creditors established by the court by the debtor is requirements information about his creditors and the amount of their property claims.

The ruling of the court on the introduction of external monitoring is indicated on the instruction authorized body within five days to appoint an administrator of external observation.

The procedure for appointing the administrator of external observation is set by the authorized body.

Analysis of the financial condition of the company as a prophylactic in terms of its bankruptcy warning.

The overall objectives of the company's financial analysis are directly related to the measurement of its results and of expenses (income). Estimates of costs and benefits in the analysis, correlated with specific technical, organizational and other factors should be comparable over time and with the corresponding estimates of similar businesses. Taken together, results of the evaluation should generate sufficient database for analysis and financial analysis, as well as comprehensive analysis and performance management (performance) of production and the enterprise as a whole, including the assessment of its solvency.

As part of the financial analysis of the following types of analytical work:

1. Planning analytical analysis (analysis in the management of the enterprise in the conditions of stable functioning).
2. A special financial analysis of high-risk activities (analysis of specific projects and programs or individual solutions to particular business).
3. Financial analysis in extreme conditions.

During the financial analysis, the following methods: horizontal (temporal) analysis, vertical (structural) analysis, trend analysis, relative performance (financial ratios), comparative (spatial) analysis and factor analysis.

In general, the financial analysis is divided into analysis of results of operations and financial condition of the company. Depending on the purpose of the financial analysis it can be offered services (specialist) companies or external organizations (internal and external financial analysis).

Analysis of the results makes it possible to evaluate the efficiency of the enterprise and, if necessary, to evaluate the impact on it of specific external factors and indicators enterprise.

The most effective preventive measure in preventing the bankruptcy of a systematic analysis of its financial condition.

The current liquidity ratio characterizes the overall security of the enterprise's own working capital for business activities and current repayment term liabilities of the enterprise.

Ratio of own working capital characterizes the existence of the enterprise's own working capital necessary for its financial sustainability.

The basis for the recognition of the structure of the balance sheet inadequate and insolvent companies is to reduce one of the above factors at the end of the reporting period (current ratio and the coefficient of its own working capital) below the normative values of the solvency ratios, differentiated by sectors of the economy.

Development of measures to improve the company's financial situation, overcome the crisis and prevent bankruptcy should be activated in stages.

Stage 1. Factor analysis of the enterprise losses. Evaluated the possible causes of losses, which led to the insolvency and unsatisfactory structure of the balance sheet, including the factors that lead to a decrease in production volume, relatively high production costs, general and selling expenses. Be sure to separate analysis of internal and external causes.

Stage 2. The forecast financial condition of the company and ways of its improvement. In addition to the financial analysis of the enterprise status and causes of insolvency in view of preserving the existing trends in the enterprise at the probability of changes in the external environment, small changes (adjustments) of internal must be carried forecast results (indicators) of the enterprise and assessed the prospects of their dynamics (improvement or deterioration) policy without significant external support. It must also be taken into account and assessed the implementation of various investment projects, contributing recovery of enterprise.

Stage 3. Drafting of financial recovery. In developing the project (program) provides the definition of strategic issues, including the objectives and financial recovery strategy and specific measures for their implementation.

Determination of financial recovery strategy should include the development of a plan principal changes in the activity of the enterprise, including its diversification and conversion, as well as addressing problems with the accumulated liabilities (debts). This strategy of financial improvement and solution to the problem of debt repayment are closely interrelated. Specific recovery strategy largely determines the possibilities and ways to solve the problem of debt. Definition of debt repayment scheme, agreed with the creditors, in turn, allows you to specify the strategy and a concrete plan (draft) reorganization of the enterprise for its financial recovery.

4. FINANCIAL CONTROL, ANALYZE, AUDIT DURING BANKRUPTCY PROCEEDINGS

4.1. Implementing of financial control in conditions of entity's bankruptcy

In management of entity's economic activity system of control is an aggregate of subjects, objects and tools of control which interact as a whole one in the process of establishing level of achieved results compliance with accepted management decisions, and also estimation of object's control condition on the base of established target compliance with actual state of business, making regulating measures and adjusted effects.

Financial-economic system of control in conditions of bankruptcy consists from several elements (Table 4-1) and carries out different functions during five bankruptcy proceedings foreseen by Bankruptcy Law (Table 4-1).

Table 4-1 Financial-economic system of control in conditions of bankruptcy

Element	Content
Object of control	Insolvent entity (legal entity which are not able to satisfy creditors requirements on cash obligations and implement obligation on compulsory payments during 3 months) which structure determines choice of methods and tools of control
Item of control	Insolvent entity's economic activity and its compliance with bankruptcy legislation; debtor's financial state and its dynamics
Subject of control	Practical activity carriers in order to implement control - Judicial agency–arbitrage courts - Attracted non-governmental organizations (for example, audit firms) - People into organizations, which implement control functions

	- Arbitrage managers (temporary manager, administrative manager, external manager or competitive manager- a citizen is established by arbitrage court for implementing bankruptcy proceedings and plenipotentiaries, which settled by Bankruptcy law, and is a member of one of the self-regulating organizations
Tools of control	Methods, tools and procedures which help to determine and give notice of emergence in state of objects and subjects of control variance with current legislation and accepted managers decisions; in documentary control-formal and logic, legal evaluation, continuous or selective, counter, countdown, balance, economic
Element	Context
Tools of control	Analyze; in actual control- inventory, expert valuation, observation. Bankruptcy Law particular importance attaches to economic analyze, inventory and property valuation of debtor-entity

Source: Authors, 2016

Table 4-2 Functions of financial control during bankruptcy proceedings

Bankruptcy procedure	**Functions of financial control**		
	Preventive	**Regulatory**	**Evaluative-analytical**
Observation	Detection of reserve in purpose of property safeguarding; to control plan of measures on analysis of debtors financial position, composition of creditors claims list, carrying out the first creditors meeting	Composition of measures on detection debtors property presence and its cost, to define sufficiency of debtor's property to cover court expenses and to pay interests to arbitrage manager, to define presence (absence) of	Determination the probability of recovery debtor's solvency for solution an issue about the appropriateness of financial rehabilitation and external management, to detect probability of the settlement agreement execution

		fictitious and premeditated bankruptcy	
Financial rehabilitation	Detection of reserves to recover insolvent entity's solvency and to put out debts according to debt repayment schedule, substantiation of financial rehabilitation measures	Composition and regulation of measures to monitor the implementation of the financial recovery plan	Evaluation of results of the financial rehabilitation, substantiation of proposals for future procedures in relation to debtor or cessation case about bankruptcy
External management	Detection of reserves to recover insolvent entity's solvency and to put out debts according to debt repayment schedule, substantiation of financial rehabilitation measures	Composition and regulation of measures to monitor the implementation of the external management	Summing-up realization of external management, analyze proposals for future procedures in relation to debtor or cessation case about bankruptcy
Receivership	Detection of reserves in purpose of substantiation of the size of competitive mass for proportionate satisfaction of creditors' claims	Composition and regulation of measures to consolidate all debtor's property, its inventory and evaluation for formation competitive mass	Results evaluation of competitive production, substantiation of proposals on cessation of production according to case about insolvency or liquidation of entity or transition to external management
Peaceful agreement	Applied at any stage of examination of bankruptcy in purpose of cessation production on case of bankruptcy by making an agreement between debtor and creditor		

Source: Authors, 2016

In determining forms of financial control it should be proceed from correlation its content and forms as general categories, which reflect a connection of two sides of any reality. The content presents defining side of subject, the form- a tool of its expression and internal organization, which modifies with the change of the content. Speaking about the forms of financial-economic control, we are meaning a measure of specific expression and organization of control activity, which desired on implementation control function.

Depending on time of implementation in relation to control activity of the object of control as forms of financial control define preliminary, current and subsequent control.

Purposes of preliminary, current and subsequent control during different procedures are different.

Table 4-3 Purposes of preliminary, current and subsequent control conditions of bankruptcy

Bankruptcy procedure	**Forms of control**		
	Preliminary	**Current**	**Subsequent**
Observation	Determination the sufficiency and completeness of planned activities to detect presence and cost of debtor's property, its compliance with legislation requirements	1. Detection of deviations in quantity and cost of actually identified property and accounts data 2. Determination the sufficiency of debtor's property to cover court expenses and to pay interests to arbitrage manager 3. Determination presence (absence) of fictitious and	1. Analyze on probability of debtor's solvency recovery: Expediency of introducing financial rehabilitation or external management Necessity of opening receivership

		premeditated bankruptcy 4. Control on reasonable formation of creditors requirement list	2. Assessment the possibility of execution of peaceful agreement
Financial rehabilitation	1. Check the correctness and validity of planned activities of financial rehabilitation plan and their accordance with legislation 2. Control of conducting debt repayment schedule	1. Check the correctness of conducting a list of creditors' claims 2. Control over timely execution of debtor current creditors' claims 3. Control over the plan implementation of financial rehabilitation and debt repayment schedule. 4. Control the timeliness and completeness of transferring cash to pay off the creditors' claims	1. Control of financial rehabilitation results: an execution of financial rehabilitation plan and debt repayment schedule. 2. Check the validity of proposals about further procedures in relation to debtor or a termination of bankruptcy business
External management	Check the validity of recreational activities of external management plan	1. Control over inventory implementation 2. Control over conducting of financial, statistic accounting and reporting 3. Check the correctness of conducting list of creditors' claims	1. Results valuation of realization of external management plan 2. Check the correctness of proposals about further procedures in relation to debtor: a) a termination of external management due

		4. Monitoring of realization of external management plan.	to recovery of debtor's solvency and transition to settle with creditors; b) a termination of production on business due to satisfaction all claims of creditors according to the list of creditors claims; c) a termination of external management and a treatment to the Court of Arbitration
Receivership	Check the sufficiency and validity of planned activity on formation of competitive mass	1. Control over inventory implementation 2. Check the validity of valuation of debtors' property 3. Control over formation of competitive mass 4. Check the correctness of conducting list of creditors' claims	1. Results valuation of receivership 2. A validity of proposals to cease production on insolvency case: or an entity liquidation, or transferring to external management

Source: (Economic Analysis: Theory and Practice, 2011)

Speaking about financial-economic control on insolvency entity, expedient to divide it by types on internal (when the subject and object of control are included organizationally in one system) and external (when the subject of control is not included in the same system as the object).

To the internal control refer intra economic (bookkeeping, management, revisory) and in-house control; to external control- state, public, independent audit control.

In case of entity's bankruptcy the basic types of external control are: state, judicial, independent audit control.

Another type of external control during bankruptcy procedures- judicial control, in which name are included key criterions for its determination. The meaning of judicial control consists from valuation of existence of such institutes system of public relations as court authority and control.

Judicial control is exclusive functional activity of special institute of public authority, a subject of which is a secondary and final providing of settled and accepted by state civil rights and freedoms in the form of implementing justice by law provided type and order of legal proceeding in framework of settled principles and norms of right.

By bankruptcy law was anticipated liability of arbitrary manager to report in front of arbitrary court about bankruptcy procedure and his activity. Court control over debtor-entity's activity was anticipated by legislation during bankruptcy procedure.

Another acceptable form of independent financial control over activity of insolvent entity – audit control, its purpose to make an opinion about reliability and fullness of financial statements, conformity of transactions and their expression in accounting with legislative claims, and on the base of financial reporting carrying out financial analysis and substantiation of proposals about advisability of finishing receivership, cessation production on insolvency business: entity's liquidation or transition to external management.

Significant changes which occurred in a field of accounting, taxation and audit at the end of 1990-s and at the beginning of 2000-s predetermined by the Program of accounting reformation according to International Financial Reporting Standards (IFRS). But modified system of accounting, taxation and legislation about bankruptcy didn't eliminate problems on implementing financial control over insolvency entity.

Difficulties connect firstly with external factors such as legislative deregulation of separate issues of implementing financial-economic control in terms of bankruptcy: lack of standard instructions on implementing and formation of inventory results of insolvency entity, specific of which according to purposes, issues and often by content differentiates from inventory on entity in customary term; lack of in legislative and standard, which regulate accounting and insolvency (bankruptcy), order of conducting the last entity's reporting; lack of standard instructions how to account expenses, which connect with bankruptcy procedures; unsettled of issues of evaluation the cost of property in bankruptcy; lack of standard meaning of financial ratios, which calculated during analysis of bankruptcy-entity's activity. There are also internal problems connected firstly with unreliability of accounting data about indicators of financial reporting of bankruptcy entity.

In conducting inventory of property and claims during bankruptcy procedures need to consider that with achievement of usual aims (delineation the actual availability of property, comparison of the actual availability of property with accounting data; examination of fullness expression of claims in accounting).

Besides, there is a specific of implementing inventory of property and obligations in framework different bankruptcy procedures, which based, firstly, who takes responsibility to carry out it, secondly, immediate structure of inventory commission (this problem is not regulated legislatively).

Lack of in the Law about bankruptcy standard instructions about order and formation of inventory results during bankruptcy procedures also makes additional difficulties for arbitrage managers. Besides, inasmuch as inventory results in terms of entity's insolvency desired, firstly, for external users, data of inventory, as a rule, concludes photos of inventory objects, that allows to user make a conclusion about their existence and condition on the date of inventory, and in general- about reliability of inventory results. Lack of in legislative and normal acts instructions about necessity of making photos of inventory objects, which regulates bankruptcy results, make an opportunity of probable distortion of information for unfair persons in implanting of inventory.

These problems can be eliminated by legislative regulation of an order of carrying out inventory and conducting its results during bankruptcy procedures.

Unsettled issues about cost valuation of property during bankruptcy often protract the procedure by not allowing timely and properly satisfy creditors' claims. Practice shows that one of the most important and controversial issue is a choice of the type of cost which subjected for valuing: market and liquidation.

The law of valuation activity gives next determinations of market value of the object of valuation: this is the most probable price at which this object of valuation can be alienated in an open market in competition conditions, when parties of a deal act reasonably by positioning all necessary information and at the value of a deal not reflected any emerge circumstances, when: one part of a deal not obliged to alien the object of valuation and another part of the deal is not obliged to accept execution; parties of the deal well aware about an object of the deal and act in their interests; the object of the deal presented on an open market by using public offer which typical for analogical objects of valuation; price of the deal presents reasonable reward for the object of valuation, and there wasn't coercion to commit the deal from any part, payment for the object of the deal presents in cash.

As seen from the definition of market value from the Law of valuation, this type of cost doesn't fit in framework of bankruptcy procedure, because the exposure time of the object of evaluation in this case is limited to a specific period of bankruptcy proceedings: external management – 18 months. In definition of residual value in contrast to definition of market value take into account influence of emerge circumstances which force a seller to sell the object of evaluation on terms no relevant to market. Because in market conditions for realization of debtor's property can be needed much more time than it was given for bankruptcy proceedings, exit can be only reduction of cost of the object of evaluation and creation competitive advantages for this object in comparing with other objects. In such a limited time frames conditions of sale of property, by our opinion, the most appropriate to use residual value of the object of valuation.

A lack of legislative and regulatory procedures for conducting accounting and preparing the last (liquidation) statement of enterprise create certain difficulties as for arbitrage managers who are responsible for its conducting as for persons (or special organizations), which directly involved in its preparation.

As mentioned before, not regulated issues of accounting of specific expenses, which rise during bankruptcy procedures and not directly connect with basic activity of debtor: expenses for payment of the state fee, expenses for payment of rewards to arbitrage managers, payment for the services of persons attracted by arbitrage managers to enforce their activities, expenses associated with convening and holding the meeting of creditors, expenses for publication of information about introduction 0f bankruptcy procedures, about trading and their holding and etc.

In this situation of legislatively not regulated issue about the structure of liquidation statement arbitrage manager should make decision independently about its structure, by taking into account that more complete on the content reporting can reflect more reliably and convey to users information about debtor-entity.

Financial analysis implementing during bankruptcy procedures is hindered by the lack of legally approved standards of financial ratios, which are calculated during analysis of debtor-entity's activity. In this regard, there may be disputes on the analysis of results of conducted financial analysis.

Included in it methodology of assessing financial situation is based on the principle "irredeemable" and presented the system of criterions of not satisfying structure of balance – creditor-enterprises. For recognition the structure of balance as not satisfying and enterprise as insolvent is needed to calculate 2 financial ratios:

1. Current ratio, it should be more or equal to 2.
2. Working capital, it should be more than 0.1.

If values of these ratios are less than standard values, will be calculated the ratio of solvency recovery for 6 months. If values of these ratios are more or equal to standard values, will be calculated ratio of loss of solvency for 3 months.

Thus the identification of not regulated aspects of current state of financial control in the insolvent entity allows defining the main problems of its organization and elements of a complex methodology of external independent audit control in terms of bankruptcy.

4.2. The basic elements of methodology of implementing audit on insolvent enterprises

The main purpose of audit is to increase quality of audit activity. So that special importance is attached to internal standards of audit, using which allows complying with claims of legislation, reducing the complexity of checking individual partitions, streamlining the technology and organization of audit, promote the introduction technologies and research development, provide high quality of auditors' work and help to reduce audit risk.

An integral part of the system of internal standards of audit organization which works with insolvent entities is standards which contain the methodology of organization of audit in terms of entity's bankruptcy. Such standards have special importance for practical work of auditors and reflect integration of theoretical and practical aspects of audit activity.

The main purpose of internal standard of audit organization on insolvency entity is an establishment of complex methodological, theoretical, informational, organizational providing of audit in purpose of understanding by all staff. Development of a standard has to base on a system approach which reflects systematic, logical, structural sequence of execution set of interrelated procedures.

All listed procedures have their purposes, terms and an order of implementation which determines the features of implementation of audit in each of them.

Receivership is only one from 5 bankruptcy procedures of entity, the result of which is an elimination of the debtor. This procedure consists from 2 stages:

- formation of competitive mass;
- sale of the debtor's property and repayment of creditors' claims at the expense of competitive mass.

Therefore, during receivership special significance acquires financial analysis of debtor's state, by results of which are made decisions about further destiny of bankrupt entity: sale of property, satisfaction of creditors claims and elimination (if there is no possibility to restore solvency), or transition to external management (if there is possibility to restore solvency).

So that features of receivership are:

- formation of competitive mass;
- assessment of the property debtor-entity;

- satisfaction of creditors claims;
- analysis of financial state of debtor-entity;
- conducting interim and liquidation statements.

These shown features determine necessity of development audit methodology in terms of receivership.

Presented methodology of audit organization on insolvency entity during receivership includes 5 basic stages: determination of purpose, issues and data base of implementing audit; audit planning, holding audit procedures substantially and reflection its results on working papers and auditor's report documents; carrying financial analysis; final audit procedures.

The purpose of audit during receivership is to make an opinion about fullness and reliability of financial statements, a compliance of business operations and their reflection in accounting with legislative claims, conducting financial analysis on the base of financial statements and study the feasibility of proposals for the completion of receivership, a termination of activity on case of insolvency, elimination of entity or transition to external management.

A subject of audit organization on insolvent entities during receivership can be presented as linked group of issues, which will be solved during their implementation:

1. control over formation of competitive mass (validation of the inclusion of the property in the competitive mass, structure of the property which is not included in the competitive mass) including: a) conducting inventory, b)a reflection in accounting results of inventory;

2. control over recording of expenses connected with implanting of the receivership, sale of competitive mass and payment to creditors;
3. analysis of financial state of entity on, the feasibility of proposals for the termination of activity on case of insolvency;
4. study the feasibility of assessment of debtor's property;
5. study the feasibility of reliability of data in interim and liquidation reporting.

The main elements of audit methodology of bankrupt entities during receivership:

1. The object of audit.
2. A list of standard documents, which regulate activity of insolvency entities and an order of its reflection in accounting and reporting.
3. Sources of information: primary documents, registers of synthetic and analytical accounting, accounting, tax, interim, liquidation report.
4. Audit planning: conducting a general plan and audit program.
5. A complex of auditing procedures applied in audit.
6. A conduction of financial analysis of bankrupt-enterprise and justification of conclusions about the appropriateness of its further operation.
7. Typical errors and violations.

The object of audit is an insolvency entity in respect of which opened receivership: its business activity, assets and liabilities.

Sources of information during audit can be structured in three levels:

- Primary documents, including standardized primary documents, documents are being developed independently by entity.
- Registers of synthetic and analytical accounting. In accordance with the applicable accounting is established a set of compulsory analytical and synthetic groups for each account. By accounting policy, systems of management, financial and tax accounting are determined specific registers of analytical accounting- cards, statements, magazines and their machine analogues.
- Accounting, tax, interim and liquidation reporting, which include financial statements in 5 forms and disclosure note, tax declaration, statistic reporting, interim and liquidation reporting.
- Planning of audit in entity during receivership is based on general claims to planning proceedings.
- Complex of auditing procedures applied in the audit includes content and a description of audit procedures for identification of possible violations and abuses.

All audit procedures are developed by one scheme: a name of the control procedure, the purpose of the control procedure, a client list of documents necessary to perform the procedure and is a source of information for verification, a list of required standard documents, a description of the technology of procedure, a description of the presentation of the results of procedure. All audit procedures which developed by audit firms must have classification numbers which allows to make references on them in audit program, draw up detailed documentation of auditor. An order of assigning classification numbers to audit procedures presents one of the internal standards and develops by each audit firm independently.

Typical errors and violations. A list of typical violations under section of audit, the most frequent violations and circumstances which allow defining these violations.

4.3. Organization of financial analysis in terms of bankruptcy

In terms of bankruptcy of entity is emphasized financial analysis of its state as a way to support conclusions about presence or absence of deliberate and fraudulent bankruptcy, also about a current state of bankrupt-entity and feasibility of conducting in relation to it procedure or necessity of its liquidation.

Economic analyze is a process is the process of diagnosing the state of the company in order to identify gaps and reserves to make recommendations leading to management decision-making.

The subject of economic analyze is a financial activity, which includes external financial results and eternal operation processes.

The object of economic analyze serves different sides of entity's activity: relations with consumers, operational activities, investment activities, financial activity

There are different classifications of types of economic analysis. Economic analyze is divided into management and financial.

The main purpose of economic analyze is a diagnostics of financial state, detection of financial difficulties and their causes, development of recommendations to make management decisions.

Issues of economic analyze as a way of financial-economic control are: to rise of feasibility of planning a rough of standards of control, to provide effective smooth activity, motivation of stuff to achieve purposes, reliability of accounting and operating control.

Financial analysis of entity's activity is divided into 3 stages:

- A diagnostics of the probability of bankruptcy in a pre-trial monitoring activities of the enterprise.
- Analysis of financial state and dynamics of its change in order to detect signs of deliberate and fictive bankruptcy.
- Analysis of financial state of the enterprise in terms of judicial procedures of bankruptcy.

There are several classifications of diagnostics types as part of crisis management of organization (Table 4-4).

Table 4-4 Classifications of diagnostics types of bankruptcy probability

Sign of classification	Types of diagnostics
By belonging to the type of crisis management	Anticipative (outrunning) Reactive (restoring)
By field of research	System (diagnostic of object as a system) Aspect (narrowly focused)
By significance of taken results in management process	Operative Tactical Strategic
By the place in arbitrage court	Judicial Pre-trial
By subject of research	Management Economic Financial
By periods of research	Regulative One-off
By orientation of research tasks.	External Internal
By purpose of diagnostics	Anti-recession Crisis

Source: Authors, 2016

Anti-recession diagnostics presents searching process of regulative and pre-trial monitoring of entity's state in purpose of timely detection probability of rising crisis on early stages and its prevention.

In theory and practice of economic research can be differentiated several methods of diagnostics of crisis of entities and their probability of bankruptcy. These methods are unified by common subject of research-entity's activity results, which reflects in the system of interrelated formal and non-formal indicators.

There are different classifications of diagnostic methods of entity's crisis state (Table 4-5).

Table 4-5 Classifications of diagnostic methods of entity's crisis state

Classification feature	**Methods of diagnostics**
According to the degree of formalization of methodical approach	Quantitative Qualitative Combined
Depending on the nature of factorial and effective signs	Deterministic Stochastic
By criterion structure	One-criterion Multicriteria
According to the degree of judiciary participation	Judicial Pre-trial
By territorial origin	Foreign Domestic
Status	Legislatively regulated
By opportunity of practical using to entity's activity	General recommended Specifically oriented
Depending on the nature of availability of background information	Internal external
Depending on the nature of information	Predictive Descriptive

Source: Authors, 2016

All before mentioned diagnostic methods of entity's crisis state according to formalization sign can be systematized in 4 approaches due to predict bankruptcy:

- formalized signs which use construction of factor model to find and estimate quantitatively dangerous tendentious of financial state of entity;

- non-formalized signs which use logic-intention analyze to make a conclusion about a probability of bankruptcy;
- application of complex signs;
- prediction of financial state on the base of cash flows analyzes (Table 4-6).

Table 4-6 Characteristic of methods of anti-recession diagnostic

A name of method	Authors	Essence of method
Type 1. Quantitative		
1. Used in judicial practice		Content opens in related standard right acts
2. Used in pre-trial practice		
2.1 Stochastic	E. Altman, R. Taphler, R. Lies, J. Phulmer, G. Tishou, J. Lego, R. Chaser, L. Philosofov, M.A. Fedotova, I.A. Dolgalev	Constructed on the base of stochastic analyze, which owns well-known Z-model, model correlates into 2 classes: must be bankrupt and able to avoid bankruptcy. An issue is to find acceptable empiric equation of defined discriminate border, which separates used system of signs to their combination, in which entity will be bankrupt and not
2.2 Deterministic		
One-criterion		Diagnostic is based on local parameter analyze or construction of deterministic model in a view of related private sign which allows to quantitatively estimate bankruptcy. All signs have only one approach to estimate probability of bankruptcy, which builds on liquidity
Multicriteria	D.A. Endovickiy, M.V. Sherbakov	Based on the method of the inverse deterministic factor analysis (method of complex analysis). With a help of the method of the inverse deterministic factor analysis all

		interrelated financial processes can be estimated by integral indicator
Method of scoring (comparative) analysis	O.P. Zaiceva, A.I. Savina	Entities are classified by the degree of risk from actual indicators , which reflect entity's financial state and can compare with standard, industry average and experts accepted
Type 2. Qualitative		
Theory of fuzzy sets		Based on the system of qualitative characteristics, which is a base of expert's valuations. Formation of information from expert is implemented by logic-intention analyze of issue. The task of expert is to allocate juxtaposed alternatives in specific sequence in accordance with their economic importance
Recommendations of committee to simplify audit practice (Great Britain)		
Kovalev-Privalov method		
Type 3. Combined	J. Argenty	The study begins with a proposal, that: a) there is a process leading to bankruptcy, b) this process for its completion requires several years and c) process can be divided into 3 stages: - Accumulation of disadvantages. Companies is coming bankrupt show disadvantages during several years, which are clear before bankruptcy. - Making mistakes. As a consequence of these disadvantages companies make mistakes. - Symptoms. Mistakes of companies lead to reflection of symptoms of insolvency: sign of lack of money, reduction of indicators. We can these symptoms in last 2-3 years of process which leads to

		bankruptcy and usually it lasts from 5-10 years. To calculate A-account of specific company is needed to put scores according to Argenty, or 0- intermediate values are not allowed. Each factor of each stage is given certain number of points and calculate aggregated indicator- A-account. If sum of scores more than 25 company can be bankrupt in the next 5 years. More than A-account the sooner it can happen

Source: Authors, 2016

The variety of approaches to the assessment of the probability of bankruptcy of organization shows that this problem is popular.

When we choose one of the anti-recession methods we should account their experience of using in practice, which helps to analyze their weak and strong sides each of them (Table 4-7).

Table 4-7 Analysis of methods of anti-recession diagnostic

Method	Advantages	Disadvantages
Stochastic factor analysis	1) The high accuracy of prediction; 2) Multi criteria of this model provides coverage of a wide range of symptoms of crisis state; 3) The possibility of estimating their simultaneous influence 4) The possibility of exclusion those factors	1) A constant weight of foreign models cannot be use in our conditions to predict bankruptcy due to different types of entity's activity; 2) A constant weight of domestic model so their criteria borders require clarification after time, it means that it needs statistic information about activity of bankrupt firms;

	which influence to each other; 5) Simplicity of using: all model can be calculated with information from statements	3) It's hard to define market value of own capital; 4) Specific conditions of functioning of entities of different branches of economy give not accuracy using of ratios for predication of bankruptcy , in foreign practice it has unified feature without differentiation to branches
Deterministic one-criterion model	Related simplicity of prediction on the base of ratio which characterizers liquidity of organization	1) Restrictions of diagnostic indicators : all separate ratios which used for bankruptcy prediction are based on liquidity and don't count other activities of organization; 2) Actual value of liquidity ratios don't reflect accurately level of financial state due to: - on homogeneity and conventions of differentiation of assets according to liquidity and liabilities deadline for their withdrawal from circulation; - momentary state of ratios
Deterministic multi criteria model	Based on: 1) Multi-criteria approach to diagnosis bankruptcy; 2) The possibility to account industry-specific features of activity of studied organization	Determination of the importance weights of particular indicators in system, method of calculation which in condition of limited statistical information and the inability to use the data of correlated-regression analysis builds most of all from expert opinion, for which is typically a high degree of subjectivity

Model of scoring analysis	Allows: 1) Integrated approach of diagnosing signs of formation crisis's situation; 2) Determine bankruptcy rating; 3) Establish possible time interval of its occurrence, i.e. getting the vector results of the diagnosis	Difficulty of forming accuracy generalizing characteristics of the current situation due to: 1) The presence of probability of belonging to different credit classes of organization for each included in the criteria system; 2) The need to compare the actual values of the coefficients with standard values 3) Impossibility of objective de termination of the ratios of the system due to limited information of initial indices
Qualitative methods	The possibility of solving problems with limited information base and novelty of studied problem as well as the versatility of the application	1) Difficult to solve multi criteria issues; 2) Subjectivity of forward-looking solutions; 3) Calculated values of criteria wears information for thinking not for immediate decision making; 4) The absence of border combination of the criteria studied, and in this communication- interpretation of the results

Source: Authors, 2016

There are also general disadvantages, common to all groups of methods, in particular:

- None of existing methods of anti-recession diagnostic don't conclude that bankruptcy is a reflection of 3 entity's crisis-economic, management and financial. So that none of existing methods cannot be used as universal due to "specialization" at any type of crisis. All of them identify only certain type of crisis of organization.

- Methodological content of most method don’t have adjustments based on features of entity’s activity of different branches of economy and they have to match to the same requirements of implementing anti-recession diagnostic. If it’s possible in some cases, model is not used by other parameters which considered before.
- Receiving of estimate of momentum character: estimation of bankruptcy probability can verify at any date or period. So that it’s not right to mare conclusions about financial state of studied object on the base of concrete static combination at specific time.

All existing methods of diagnostic of bankruptcy probability contain positive moments, development of which lays on the direction of their improvement. It’s talking about A-account and sensitivity analysis, which allows to count factor of dynamic assessment.

Thus, mentioned before methods of diagnostic of bankruptcy probability is needed to improve by improving positive advantages and elimination current disadvantages. The more perspective is complex method which allows creating combination of features of development of economic, management and financial crisis.

Important stage of financial state analysis of insolvent entity is a determination of features of fictitious and deliberate bankruptcy that the Law of bankruptcy entered this to the responsibility of arbitration manager.

According to current legislation the deliberate bankruptcy is a deliberate action of the manager or founder which leads to insolvency of legal entity or individual entrepreneur to fully satisfy creditor's claims and disability to pay compulsory payments.

Fictitious bankruptcy- deliberate false public announcement of the manager or founder of legal entity that legal entity or individual entrepreneur is insolvent.

For determination of features of fictitious and deliberate bankruptcy is needed to define that debtor had enough recourses to fully satisfy creditor's claims on the date of debtor's application to arbitration court.

The main document which regulates implementation of analysis of presence of features of fictitious and deliberate bankruptcy currently is Temporary rules of arbitration manager for checking presence of features of fictitious and deliberate bankruptcy.

The sources of information to hold an expertise according to Temporary rules are different documents:

- proceedings of the debtor's tax audits;
- constituent documents of the debtor;
- accounting statements of the debtor;
- contracts of the debtor;
- information on the management bodies;
- a list of the debtor's property;
- a list of the receivables;
- certificate of debt to budgets of all levels;
- a list of the debtor's creditors;

- reports on the assessment of property, the auditor's report, reports, conclusions and reports of the Audit Commission, the protocols of governing bodies of the debtor;
- information about the affiliates of the debtor;
- materials of trials of the debtor.

In addition, it is necessary to find out that there were before bankruptcy (or during) increase or creation of in solvency and it was the result of manager’s action which didn’t match with market conditions, norms, standards and customs of business at that time.

In order to find out features of fictitious and deliberate bankruptcy, implements analysis of financial activities of debtor which include several stages.

On the first stage calculates the values and dynamics of ratios characterizing the solvency of the debtor and a change of security obligations to its creditors at studied period of at least two years before initiation of bankruptcy proceedings. Ratios: absolute liquidity, current liquidity, security of obligations of the debtor by its assets, solvency by current liabilities (Table 4-8).

Table 4-8 Content and calculation of ratios to define features of deliberate bankruptcy

A name of ratio	Economic content	Calculations by forms of accounting report
Cash ratio	Shows which part of short-term liabilities can be paid immediately	Ratio of the most liquid assets to current liabilities
Current liquidity ratio	Characterizes the security of organization by working capital for business activities and timely repayment of obligations	Ratio of liquid assets to current liabilities
Security of obligations of the debtor by its assets ratio	Characterizes the value of the debtor's assets per unit of debt	Ratio of the sum of liquid and adjusted non-current assets to liabilities
Solvency by current liabilities ratio	Defines current solvency of organization, volumes of its short-term borrowings and possible repayment period by organization of its current debt to creditors from the proceeds	Ratio of current liabilities to value of the average revenue

Source: Authors, 2016

By calculated values of each ratio calculates quarterly indicators of change from value of current indicators to value of past indicators.

For example, if (*a1.a2, a3, a4…aN*) Quarterly range of indicators' values a in *N-1* quarters; *N*- number of indicators' values, and (*a1/a2, a3/a2, a4/a3…aN/aN-1*) presents range of values *a1/ai=ti* rate of ratio dynamics (increase or decrease).

Over all indicators calculates average rate of change by average geometric formula, i.e. as root of which is equal to the number of quarters (N-1), from the relation of the ratio value at the last date to the same ratio value at the first reporting date.

The dynamics of considered indicators are estimated from the next links:

- Decrease of absolute liquidity ratio and current liquidity ratio, security of obligations of the debtor by its assets certify about the deterioration of the enterprise.
- Increase of the level of solvency also certify about the deterioration of the enterprise.

A number expression of indicators dynamics is estimated by this way:

- If average rate of change of absolute liquidity ratio and current liquidity ratio, security of obligations of the debtor by its assets are less than 1.
- If average rate of change of the level of solvency is more than 1, it means that during the study period indicators have decreased.

The calculated rate of decrease is compared with all other quarters' rate values of this indicator.

According to results of comparison distinguish and selects those quarters in which rate of change has value less than average rate and for level of solvency of current liabilities more than average rate.

If 2 or more indicators match with number of selected quarters, on the second stage implements analysis of deals and actions of the management of the debtor, which can be cause of decrease of solvency in studied period.

If all calculated indicators don't match with number of selected quarters, on the second stage implements analysis of deals and actions of the management of the debtor, which can be cause of decrease of solvency for the entire period.

The second stage of delimitation of features of fictitious and deliberate bankruptcy is an analysis of committed deals of the that period which leaded to decrease of 2 or more indicators, delimitation of committed and used deals which don't match with market conditions and which are a cause of occurrence and increase of solvency and damage to the debtor in cash.

In Temporary rules there is a list of deals which don't match with market conditions.

Table 4-9 Committed deals of the debtor which don't match with market conditions

Type of deal	Object, feature of deal
Deals of disposal of property of the debtor, which are not deals of purchase-sale	Replacement of the debtor's property with less liquid
Deal of purchase-sale	Property, without of which the basic activity of the debtor is impossible; also deals committed on deliberately unprofitable conditions for debtor
Deals connected with occurrence of the debtor's liability	Acquisition of not-liquid asset, and also not secured by property
Deals on change of one obligations to others	Committed on deliberately unprofitable conditions

Source: (Economic Analysis: Theory and Practice, 2011)

According to results of value and dynamics of indicators which characterize solvency of the debtor and the debtor's deals can be concluded one of conclusions.

Table 4-10 Conclusions according to results of value and dynamics of indicators which characterize solvency of the debtor and the debtor's deals

Conclusion	Condition
About presence of features of deliberate bankruptcy	If manager of the debtor, founder, individual entrepreneur committed deals, which don't match to market condition, customs of business and they are cause of occurrence and increase of debtor's insolvency
About absence of features of deliberate bankruptcy	If arbitrage manager didn't reveal appropriate deals and actions
About impossibility to implement checking of presence or absence of features of deliberate bankruptcy	Absence of documents needed for checking

Source: Authors, 2016

By systematizing results of the first and second stages of presence of features of deliberate bankruptcy it can be concluded next conclusions.

Table 4-11 Systematizing results of presence of features of deliberate bankruptcy

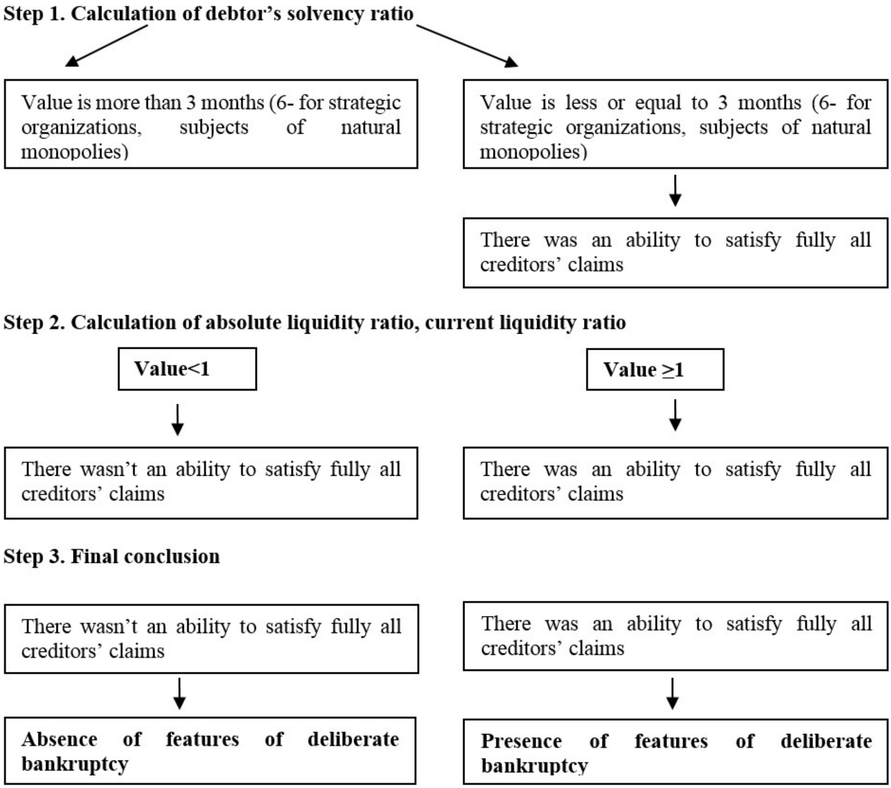
Variant	Dynamics of indicators of creditors' claims security	Accordance of deals to existing market conditions, rules and business customs	Conclusions
1	Not deteriorated	The analysis is not carried out	Absence of features of deliberate bankruptcy
2	Deteriorated	Matches	Absence of features of deliberate bankruptcy
3	Deteriorated	Not matches	Presence of features of deliberate bankruptcy

Source: Authors, 2016

The feature of deliberate bankruptcy is a presence of ability that the debtor on the date of application submitting to the arbitrage court can fully satisfy all creditors' claims and pay compulsory payments.

In order to reveal the feature of deliberate bankruptcy on the last reporting date before the date of debtor's application implements calculation and analysis of next indicators: level of solvency; cash ratio; ratio of current liquidity. Analysis of mentioned indicators implements by a certain algorithm.

Figure 4-1 Algorithm



Source: Authors, 2016

On the results of audits makes conclusion about presence or absence of deliberate bankruptcy which is presented to the creditors' meeting, the arbitrage court to make a decision about excitation of an administrative case.

If in the conclusion about presence or absence of deliberate bankruptcy established fact of causing major damage it will be sent only to the bodies of the preliminary investigation.

Particular importance to determine the prospects for activity of insolvency entity is the third stage of analysis of debtors' financial state, which implements in terms of judicial bankruptcy proceedings.

Financial analysis in framework of separate bankruptcy procedures has certain goals.

Table 4-12 Goals of implementing financial analysis during bankruptcy procedures

Procedure	**Goal of implementing financial analysis**
Observation	1) To define presence and cost of debtor's property, sufficiency of the debtor's property to cover legal costs, payment of compensation to the arbitration manager 2) To establish presence or absence of deliberate bankruptcy 3) To determine the possibility to restore the solvency of the debtor to solve question of the appropriateness of the financial rehabilitation or external administration 4) Identification of possible settlement agreement
Financial rehabilitation	1) Justification measures of the financial recovery plan 2) Monitor the implementation of the financial recovery plan 3) Evaluation of results of financial rehabilitation 4) Justification of proposals about further procedures in relation to the debtor or termination of the bankruptcy case

External management	1) Justification measures of the external management plan 2) Monitor the implementation of the external management plan 3) Evaluation of results of external management 4) Justification of proposals about further procedures in relation to the debtor or termination of the bankruptcy case
Receivership	1) Justification the size of receivership 2) Evaluation of results of receivership 3) Justification of proposals about further procedures in relation to the debtor or termination of the bankruptcy case

Source: Authors, 2016

Financial analysis of the state of debtor-entity in framework of judicial bankruptcy proceedings consists of the following steps:

Stage 1. Analysis of ratios of debtor's finance activity

Group 1. Ratios of solvency (cash ratio, current liquidity ratio, security of obligations of the debtor by its assets ratio, solvency by current liabilities ratio).

Group 2. Ratios of debtor's financial stability (equity ratio (financial independency); ratio of security by working capital (a share of working capital in current assets); the share of overdue payables in liabilities; ratio of receivables to total assets).

Group 3. Ratios of economic activity of the debtor (return on assets; norm of net income).

To calculate ratios we use financial statements, in order to do it we need to systemize indicators calculation according to data from financial statements.

Table 4-13 Calculation of financial ratios on the base of financial statements

Ratio's code	Ratio's name	Economic content	Calculation by reporting forms
TA	Total assets (liabilities)	The sum of cost of intangible assets, fixed assets, unfinished capital investments, profitable investments in intangible assets, long-term investments, other non-fixed assets	
ANA	Adjusted non-current assets	The sum of cost of inventories, long-term liabilities, liquid assets, VAT on acquired assets, debts of participants от contributions to the share capital, own stocks redeemed from shareholders	
CA	Current assets	Accounts receivable payments expected more than 12 months after the reporting date	
LR	Long-term receivable	The sum of cost of the most liquid assets, short-term receivables, other current assets	
LA	Liquid assets	Cash, short-term investments	
TMLCA	The most liquid current assets	The sum of cost of shipped expected more than 12 months	
SR	Short-term receivables	Written-off account receivables and the sum issued guarantees and warranties	
WC	Working capital	The sum of capital and reserves, income of future periods, reserves of future periods less capital expenditures by leased property, debts of shareholders on capital contributions and the value of own shares repurchased from shareholders	

LD	Liabilities of debtor	The sum of current liabilities and long0term liabilities of debtor	
LLD	Long-term liabilities of debtor	The sum of borrowings and credits which have to be paid during 12 months after reporting date and other long-term liabilities	
CLD	Current liabilities of debtor	The sum of borrowings and credits which have to be paid during 12 months after reporting date, accounts payable, debt to participants (founders) on payment of income and other current liabilities	
OP	Overdue payables	Debt maturity which has been more than three months	Not separately allocated
NR	Net revenue	Revenue from sales of goods, execution of works services less VAT, excise and other similar mandatory payments	
GM	Gross revenue	Revenue from sales of goods, execution of works services without deductions	Not reflected in statements
AMR	Average monthly revenue	Ratio of gross revenue, received for certain period as cash and in the form of offsetting to the number of months in the period	GR/T, where t- a number of months in the period
NP	Net profit (loss)	Net retained profit for the period remaining after payment of taxes on profit and other similar compulsory payments	

Source: Authors, 2016

It seems appropriate to systemize financial-economic content of listed ratios and unify their calculations by using codes of these ratios.

Table 4-14 Calculation of financial-economic ratios to analyze debtor's activity

Ratio's name	Financial-economic content	Formula
Ratios which characterize debtor's solvency		
Cash ratio	Shows which part of short-term liabilities can be paid immediately; calculates as ratio of the most liquid assets to current liabilities	ALR=TMLA/CL
Current liquidity ratio	Characterizes the security of organization by working capital for business activities and timely repayment of obligations; calculates as ratio of liquid assets to current liabilities	RCL=LA/CL
Security of obligations of the debtor by its assets ratio	Characterizes the value of the debtor's assets per unit of debt; calculates as ratio of the sum of liquid and adjusted non-current assets to liabilities	SOO=(LA+ACA)/DL
Level of solvency by current liabilities ratio	Defines current solvency of organization, volumes of its short-term borrowings and possible repayment period by organization of its current debt to creditors from the proceeds; calculates as ratio of current liabilities to value of the average monthly revenue	LS=CL/AMR
Ratios which characterize debtor's financial stability		
Equity ratio (financial independence)	Presents share of assets which are financed by own working capital; calculates as ratio of working capital to total assets	ER=WC/TA

Ratio of availability of own working capital	Determines level of organizations security by own working capital which is necessary for its financial stability; calculates as ratio of difference working capital and adjusted non-current assets to current assets	RAOWC=(WC-ANA)/CA
The share of overdue payables in liabilities	Characterizes presence of overdue payables and her share in total assets of organization and calculates in percentages as ratio of overdue payables to total liabilities	TSOOPIL=OP/TL
The ratio of receivables to total assets	Determines as ratio of the sum of account receivables, short-term receivables and potential current assets to total assets of organization	TRRTA=(AR+SR+PCR)/TA
Ratio which characterize economic activity of debtor		
Return on assets	Characterizes the degree of use of property by organization, professional qualifications of enterprise management; determines the percentage of ratio of net income (loss) to total assets	RA=NI/TA
Norm of net income	Characterizes the level of profitability of economic activity of the organization; calculates as ratio of net income to net revenue	NNI=NI/NR

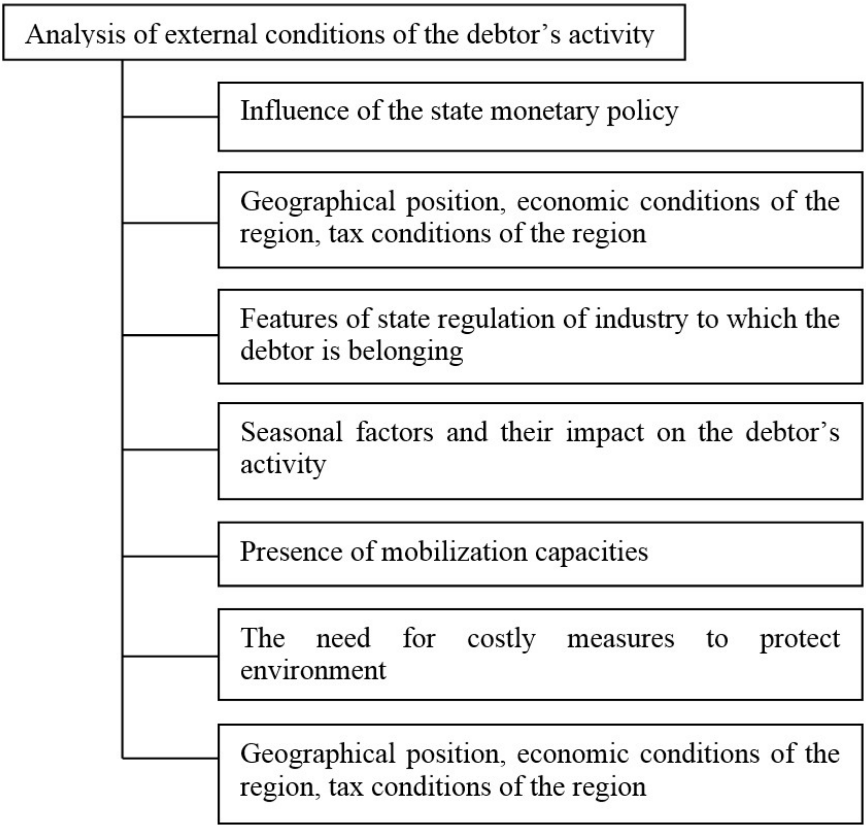
Source: Authors, 2016

Stage 2. Analysis of economic, investing, financial activity of debtor, its position on goods and others markets.

Analysis of economic, investing, financial activity of debtor, its position on goods and others markets includes analysis of internal and external conditions of debtor’s activity and market, on which it’s implemented.

In the analysis of external conditions of the debtor’s activity implements analysis of general economic conditions, regional and sectoral characteristics of its activity.

Figure 4-2 Analysis of external conditions of the debtor´s activity



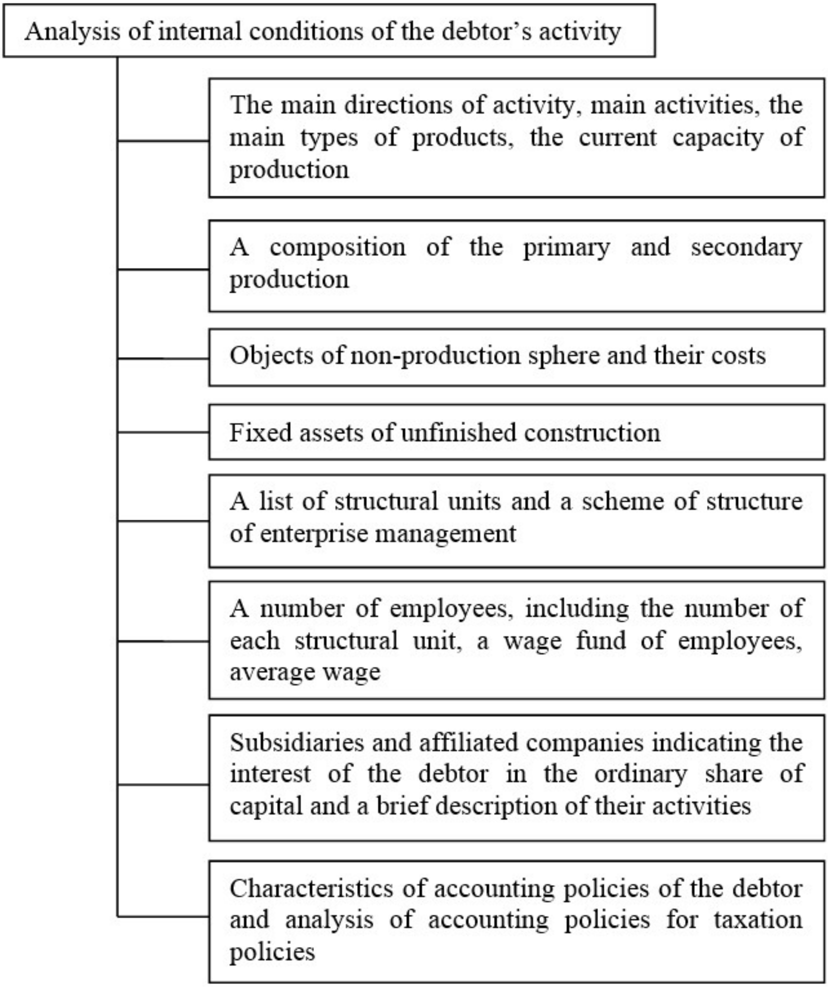
Source: Authors, 2016

In the analysis of the internal conditions of the debtor analyzes economic policy, organizational and production structure of the debtor.

During analysis of markets, on which implements the debtor's activity, holds analysis of data about suppliers and consumers (counteragents).

Stage 3. Analysis of assets and liabilities of the debtor.

Figure 4-3 Analysis of internal conditions of the debtor´s activity

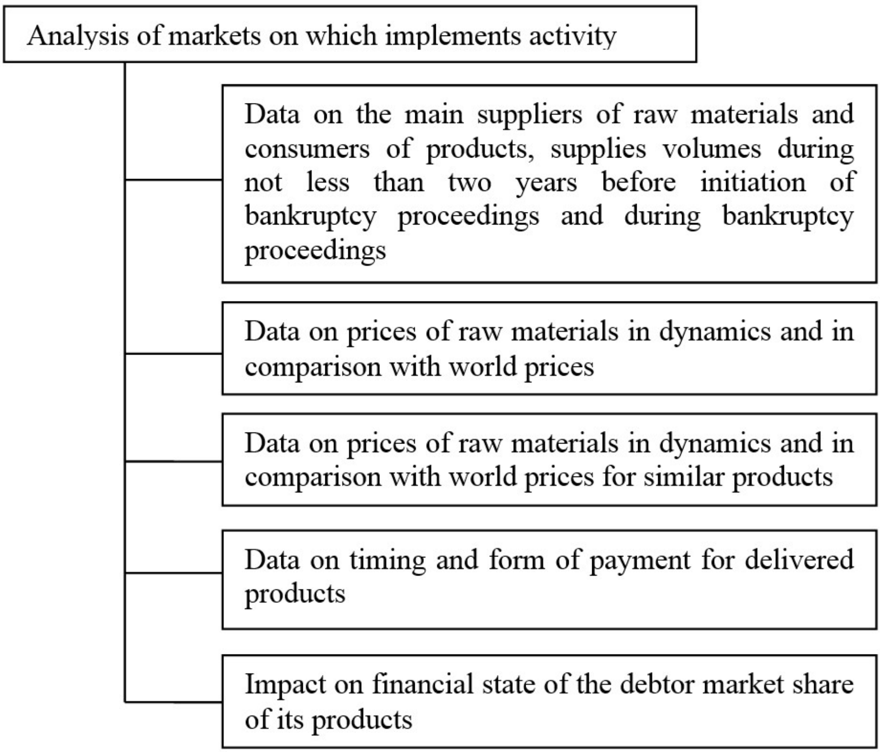


Source: Authors, 2016

It is necessary to analyze the assets (property and property rights) and liabilities (obligations) of the debtor, results of which are mentioned in documents which contain analysis of the debtor's financial state. Assets and liabilities are analyzed by groups of balance sheet items.

Assets analysis are held to estimate effectiveness from their using, identify internal reserves to restore solvency, assess the liquidity of assets and a level of their participation in economic turnover, identify property and property rights, acquired on a known unfavorable conditions, assess the possibility of return of expropriated property introduced as financial investments.

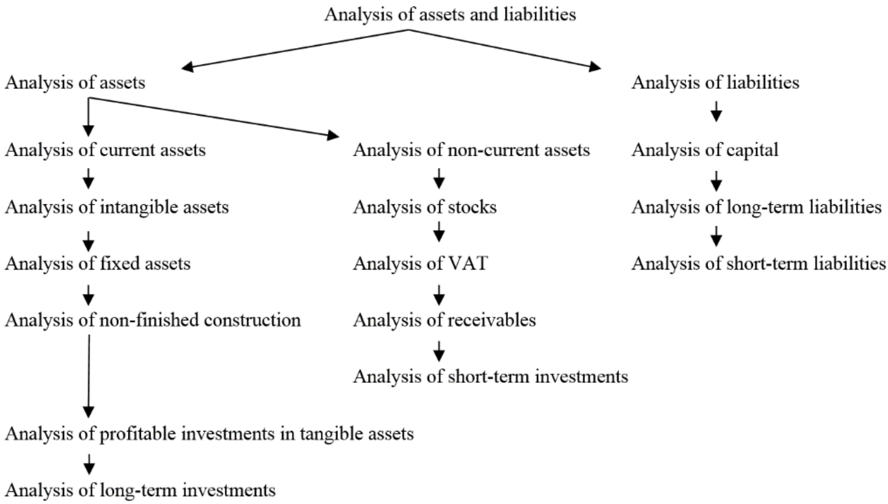
Figure 4-4 Analysis of markets on which implements activity



Source: Authors, 2016

According to the analysis of all asset groups in the documents which contain analysis of financial condition of the debtor and all quarter changes of structure and book value during not less than two years before initiation of bankruptcy proceedings and during bankruptcy proceedings.

Figure 4-5 Analysis of assets and liabilities



Source: Authors, 2016

Table 4-15 The results of structural analysis of assets and liabilities of the debtor

A name of asset	Results of analysis
Analysis of assets	
Intangible assets, fixed assets and non-finished construction	a) A book value of assets used in the production process; b) A possible value of assets used in the production process, in realization in market conditions; c) A book value of assets not used in the production process; d) A possible value of assets not used in the production process, in realization in market conditions

Fixed assets	a) Presence and a brief description of mobilized and preserved fixed assets; b) Depreciation of fixed assets; c) Presence and characteristics of fully depreciated fixed assets; d) Presence and a brief description of encumbered assets
Non-finished construction	a) A level of readiness of assets objects of non-finished construction; b) An amount of funds needed to complete construction works and timing of the possible exploitation of objects; c) Necessity and feasibility of completion of construction works or preservation of assets of non-finished construction; d) A possible value of objects of non-finished construction in realization in market conditions
Profitable investments in tangible assets	a) Efficiency and appropriateness of investments in tangible assets; b) Compliance of earned income with market level; c) A possibility of termination of the contract and return of property without incurring penalties against the debtor;
Long-term investments	a) A level of readiness of assets objects of non-finished construction, an amount of funds and time needed to bring it to the finished product, b) A size of raw materials below which the production process is stopped; c) A size of raw materials which can be realized without prejudice of production process; d) A validity of prices at which purchased raw materials; e) Reasons for delay of finished products; f) A validity of reflecting in balance sheet of prepaid expenses; g) A possibility of obtaining cash for goods shipped; h) Stocks, an implementation of which is difficult at book value

VAT	A validity of sums, which are registered as VAT on purchased assets
Account receivables	A sum of account receivables, which cannot be collected
Short-term investments	a) Efficiency and appropriateness of short-term investments; b) A property entered as short-term investments; c) A possibility of return of property entered as short-term investments d) A possibility of realization of short-term investments
Other non-current assets	Efficiency of their using and possibility of realization a) A possible value of assets used in the production process, on disposal of which the main activity of the debtor is impossible (first group); b) VAT on purchased assets, also assets realization of which is difficult (second group); c) A book value of property which can be realized to pay for creditors, cover judicial expenses and pay remuneration to arbitrage manager (third group), which determines by subtracting from total assets the sum of first and second groups
Analysis of liabilities	
Short-term and long-term liabilities	a) Quarterly changes of structure and size of liabilities during for at least two years preceding a commencement of bankruptcy case, period of implementation bankruptcy proceedings in relation to debtor, and their share in total liabilities at the relevant date of reporting; b) Validity of obligations, including the validity of liability of compulsory payments; c) Validity of liability separation to principal and sanctions; d) Liabilities occurrence of which may be challenged; e) Obligations, performance of which can be carried out in installments;

	f) A possibility of restructuring obligations under the terms of execution by entering into an agreement with creditors
Capital and reserves	Provides information about the size and correctness of charter capital, added capital, reserve capital, fund of social sphere, targeted funding and inflows, a size of retained earnings and not-covered expense of past years and in reporting year
Liabilities, execution date of which will come in the near future	Data about obligations, execution date of which will come in the near month, 2 months, quarter, half-year, year

Source: Authors, 2016

Liabilities analysis is held to identify internal reserves to restore solvency, reveal liabilities which may be challenged or discontinued, identify a possibility of restructuring obligations under the terms of their execution.

Stage 4. Analysis of possible break-even activity of the debtor

It's necessary to carry out analysis of possible break-even activity of the debtor, changing a selling price and production costs, results of which are mentioned in documents, which contain analysis of debtor's financial state.

Table 4-16 Results of analysis

A structure of analysis	**Results of analysis**
Analysis of possibility to change a selling price	a) A possibility of realization of goods, implementing works and services at more high price (for profitable activities); b) A possibility of realization of goods, implementing works and services at price which provides profitability and cash inflow from realization at current volume of production (for each unprofitable activities)
Analysis of possibility to change production costs	a) Expenditure items that are baseless and unproductive;

	b) Measures to reduce costs and expected results from their implementation; c) Maintenance costs of conserved objects, mobilized capacities and state reserves; d) Comparative characteristics of existing cost structure and cost structure in the calendar year preceding the year in which the debtor has emerged signs of insolvency
Analysis of possible break-even activity of the debtor	a) Prices on goods, works, services; b) Production volume; c) Production capacity; d) Production costs; e) Goods market; f) Market for raw materials and resources
Results of analysis of possible break-even activity of the debtor	a) If realization of goods, services at prices which provides break-even activity is impossible due to presence on the market other goods, services of another producers at lower price, or increase of production is impossible due to market saturation and limitless of production capacity and raw materials market, thus this type of activity or production of this products is unappropriate and break-even activity is impossible; b) If realization of goods, services at prices which provides break-even activity is possible, increase of production is also possible, so this type of activity or production of this products is appropriate and break-even activity is possible; c) If it’s possible to achieve such volume of production and realization of goods, services, in which revenue from sales exceeds the sum of expenses and revenue from main activity also exceeds all expenses from main activity, so break-even activity is possible

Source: Authors, 2016

Implementing of financial analysis during bankruptcy procedures is hindered by the lack of legislatively established standards values of financial ratios calculated during analysis of bankrupt-entity's activity. In this regard, there may be disputes in analysis of results of financial analysis.

On the base of financial analysis arbitrage manager prepares offers:

- during all bankruptcy proceedings – about possibility (impossibility) to restore solvency of the debtor and justification of appropriateness of introduction appropriate procedure of bankruptcy: about possibility of coverage legal expenses due to the debtor's property; during procedure of external management – to prepare a plan of external management, taking into account specific features of capabilities of enterprise;
- during procedure of financial rehabilitation and external management- appropriateness of preparing proposals to address to court with a petition for termination procedure of financial rehabilitation (external management) and transition to receivership;
- during procedure of receivership – appropriateness of preparing proposals to address to court with a petition for termination procedure of termination and transition to external management.

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