# Management of an enterprise market value based on the compliance of the balance of interests

#### with respect and gratitude

To my beloved wife Svetlana Tonkikh and my college and friend Professor Leonid Dedov

### MANAGEMENT OF AN ENTERPRISE MARKET VALUE BASED ON THE COMPLIANCE OF THE BALANCE OF INTERESTS

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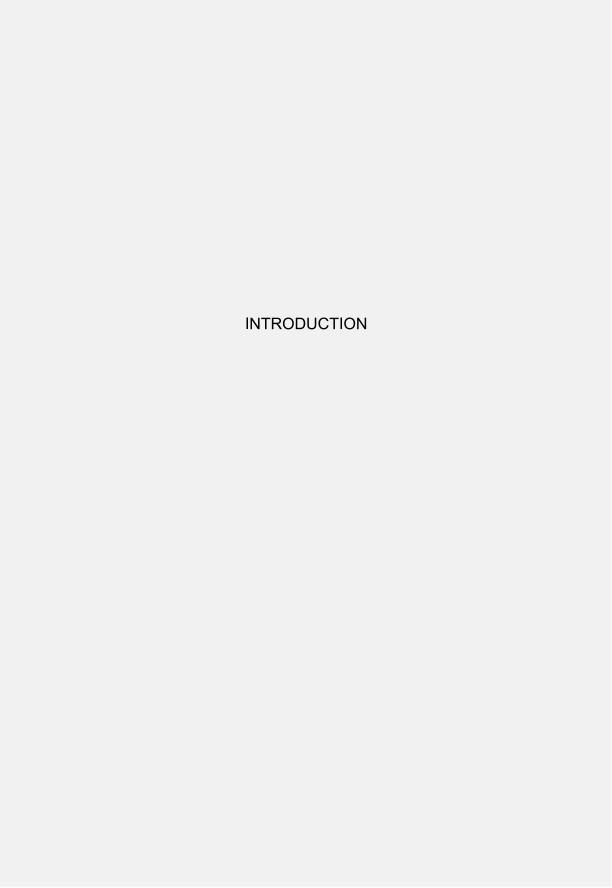
Management of market value is the fundamental concept of the modern management theory. However management methods used by managers do not fully meet the needs in providing of rise in value. This monograph presents a new approach to management of company value, based on a balance of financial interests of shareholders and managers. The mechanism of formation of enterprise value and its connection with the achievement of balance of interests are described. An algorithm for the development of primary actions to ensure the growth of the market value is presented.

The monograph is intended for a wide range of experts and researchers.

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#### INTRODUCTION

At present the division process of ownership and property management functions is gaining momentum in Russia. There is a break in daily management of a firm by its owners. Investors aspire to diversify their investments. It is connected with the desire to minimize the risks and with the growth of return from underlying assets followed by the formation of free cash flows which demand adequate investment.

In these circumstances salary is not the main form of owners' income but it is the growth of market value of their assets. Moreover institutional investors are much of the investment community and for them any kinds of investments are no more than financial transactions. They invest in assets to sell them in some time with the highest price. Therefore the need in improved tools of market value management increases.

The maximum increase of market value is possible if in addition to the owners the enterprise management is interested in this. So management tools of business value should take into account interests of company's managers as well. It is arguable that the shaping factor of successful management of business market value is the compliance of interests' balance of shareholders and managers of an enterprise while the existent approaches are based on the other factors of value.

The constant change in the market situation and the effect of modern factors of economic development require arsenal expansion of analytic tools by means of which it could be possible to evaluate the business and manage the growth processes of its value. Particularly the question about the influence of relationships between shareholders and managers

and their mutual satisfaction with the achieved results of enterprise value is not considered in practice.

The existing methods of value control are based, as a rule, on a regular assessment of business value and making management decisions on its basis. It greatly complicates and increases the value of the management process. In our opinion, it is necessary to have tools which don't imply regular assessment of value and allow, at the same time, to develop measures leading to its growth.

Many of the techniques used by professionals have the necessary diagnostic properties in identifying possible problems, but they are not sufficient for an adequate impact on the value factors, because their implementation requires a mechanism which is not accentuated as a rule. Besides, the ever-changing conditions of company functioning require clarification of criteria in making management decisions.

Thus the monograph covers the development and explanation of complex tools to increase the market value of a company. These tools are based on the compliance of interests' balance between owners and managers of an enterprise.

The monograph consists of three chapters.

In chapter 1 "CONCEPTUAL PRINCIPLES OF BUSINESS VALUE MANAGEMENT" the main goals of a company are considered, crucial importance of growth in prosperity of the enterprise owners is explained. The main problems of value management that require adequate solution are shown. Analysis of key factors of business value is made. The mechanism of market value formation of an enterprise on the basis of compliance of interests' balance is developed.

In chapter 2 "METHODOLOGICAL ASPECTS OF BUSINESS VALUE MANAGEMENT BASED ON BALANCE OF INTERESTS COMPLIANCE" the main requirements to the tools of market value management are formulated. The standard dynamics of indicators as fundamental criterion of market value growth is developed. The presented criterion is checked for conformity with the promoted requirements. The evaluator of actual interests' balance is developed. It is presented as a single roundup indicator. An empirical test of market value dependence on the achieved interests' balance through the example of the first-rate Russian enterprises is made.

In chapter 3 "DEVELOPMENT OF EFFECTIVE MEASURES FOR THE MANAGEMENT OF BUSINESS MARKET VALUE" we describe the tools of diagnostics and ranking of problems connected with the breach of interests' balance of shareholders and managers and therefore the problems of value management. Through the example of an industrial enterprise an explanation algorithm of measures choice to increase the market value of this enterprise is given. The main financial problems of Russian corporations are revealed. There are practical recommendations to remove problems both in a specific enterprise and in Russian corporate sector on the whole.

#### Chapter 1.

### CONCEPTUAL PRINCIPLES OF BUSINESS VALUE MANAGEMENT

- 1.1. Growth in prosperity of owners as the basis of enterprise existence.
- 1.2. The main problems in management of company value
- 1.3. Mechanism and factors of formation of enterprise market value

Chapter 1

#### CONCEPTUAL PRINCIPLES OF BUSINESS VALUE MANAGEMENT

- 1.1 Growth in prosperity of owners as the basis of enterprise existence
- 1.2 The main problems in management of company value
- 1.3 Mechanism and factors of formation of enterprise market value

#### Growth in prosperity of owners as the basis of enterprise existence

Variety of business goals determines the variety of opinions on purposes of company's existence. Through its work, the firm may have quite different purposes. The priority of a particular purpose is interpreted differently in the existing theory of the firm. The most common statement is that the firm must function in such a way as to ensure maximum return to its owners. In general, there are the following spheres of maximization - sales, profits, asset growth and the wealth of shareholders.

An assumption of the classical economic theory that profit maximization of individual economic entities leads to the maximization of social welfare, including the welfare of the owners, underlies at the heart of profit maximization. However, this goal cannot satisfy the majority of shareholders. High profits can be fully spent for the current needs of the enterprise. As a result, the company will lose the opportunity to shape the financial resources which are sufficient to support the long-term development and in the future it will lead to the loss of achieved competitive advantages. Moreover, making the highest profit is possible only in conditions of high risk and if this risk is realized deterioration of functioning results of an enterprise up to the bankruptcy is inevitable. Therefore, profit maximization can be considered as not the only one important

goal of enterprise functioning.

Shareholders who are supporters of sales maximization prove the following arguments. This criterion reflects the results of business activity of an enterprise: the higher the sales, the bigger the efforts of managers to achieve them. Sale proceeds also shows how enterprise's output is called for by consumers i.e. it defines the competitive power of the enterprise and so perspectives of its activity.

It is assumed that the volume of sales reflects, in addition to the mentioned facts, all the positive changes taking place in the company, including changes in the sphere of innovation. Criterion of sales maximization is proved by the fact that it represents not only the interests of the company owners but its managers as well, who identify their position in society with the size of the enterprise and not with its profitability.

However, such goal is almost not linked to cost savings. The rate of spending for sales growth can outrun the rate of growth in incomes from the sale and it reduces the profit rate and possibility to form sufficient financial resources. Therefore by analogy with the profit sales result can be just one of the possible criteria of the company's activity and it is not the comprehensive indicator expressing the main goal of the enterprise activity.

As opposed to the previous ones there is an idea of the enterprise activity in dynamics as part of the maximization model of assets growth rate. In this case the change of enterprise assets size is considered as an indicator which characterizes this phenomenon, i.e. the more assets have increased in comparison with the previous period the more successful the enterprise works. However, the increase in value of the company's property is not always accompanied by increase of efficiency. So the purchase of additional equipment does not always lead to increase in profits or proceeds, and in this context, maximization of the assets value cannot be considered as a top priority of the organization. However, the advantage of this model is expressed in its focus on the strategic perspective,

it ensures development of the company over time, and one can use it in the system of financial goals of the company.

The approach of market value maximization of the corporation shares is based on the premise that the welfare of the company owners is not in the growth of current income in the form of dividends, but in the growth of the shares market price. Taking into account widespread occurrence of this approach in a modern market economy, and also that it regulates the ratio of all other purposes and guarantees the company's capital in the long term, it can be taken as the main but not the only one purpose of the company. However the growth of company's value in prospect even though it is not distant not always interest investors especially in Russia. Sometimes the majority of the shareholders are interested in the current dividends. The examples can be found in Russian practice of corporate management when significant part of enterprise profit was aimed to pay the dividends: "Sibneft", "Severstal" and so on. Besides the maximization criterion of shares price is applicable only under conditions of equally accessible information for all market participants, but it is known that the information is asymmetric, which limits the widespread use of this model.

Along with the maximization of the considered parameters, minimization of transaction costs can be considered as one of the performance criteria of the company. This model is based on the fact that the minimization of the total costs of the company reduces the total social costs, thus it increases the welfare of society. Service costs of transactions in the market are meant by transaction costs. However cost savings can restrain the company's development because costs which potentially promote the improvement of activity indicators can be reduced. For example, these are the cost of sales promotion, organization of information security of transactions, etc. Finally, minimization of transaction costs can lead to a narrowing of range activity and other negative consequences in the long term. Hence, the present model is considered only as one of the ways of increasing the effectiveness of the entity.

Above we have described only the basic criteria, which are considered as the main goals of the company. However, the firm can have other purposes, for example, achievement of financial stability, even with a small income, liquidity, good image, avoidance of bankruptcy, etc.

It bears repeating that the maximization of wealth of company owners regulates the relationship of all other purposes, and ensures that in the long-term investors will provide the company with capital. That is why, as the main goal of the company we have the maximization of owners' wealth. This is consistent with the fundamental idea of society – achievement of social and economic prosperity through private property.

Welfare of the company owners consists of two components: current income and income from the capitalization of the firm value. The second source of income, as a rule, is a major contributor to the change in the total wealth of investors. For example, one of the richest men in the world is Bill Gates, the co-owner of the "Microsoft" company. Moreover, in its long history "Microsoft" has never paid any dividends. One can make many examples from the list of the richest people in the world.

This fact is easily explained. The size of paid dividends is limited by the profit margin while the growth of shares'value is almost not limited. Thereby people decided to influence purpose fully on indicator of business capitalization (market value) to increase the total wealth of society. In the end this led to the appearance of the new trend in the management theory –concept of management of an enterprise value.

The essence of this concept is as follows [1]: from the point of view of shareholders (investors) firm's management should be aimed at ensuring the growth of the market value of the company and its shares, because such growth allows shareholders (investors) to obtain the most significant (in comparison with other forms) income from the investments in the company - foreign exchange cash income from the resale of all or just part of their shares, or a non-cash foreign exchange

income, expressed in increased value of the net assets of shareholders and, therefore, the amount of their own capital. It means that all actions, management solutions, methods and management techniques should be directed to one main goal: to promote the growth of business value. We emphasize that unlike the majority of modern researchers, we are talking deliberately not about value maximization but about its growth. The reasons for this we are going to state later.

Business growth involves several interrelated characteristics. There are adaptation, growth and development among them. Adaptation of the system ensures maintenance of its basic functions by adapting to the changed conditions of internal and external environment. Growth means increase in the size of the system due to additional elements while maintaining its old qualities and goals. Development, in addition to growth, includes the acquisition of new qualitative characteristics, providing a higher level of performance of its functions and (or) the acquisition of new ones.

These characteristics reflect the market values of the company. Moreover, there have been a number of studies [2], and their conclusions allow claiming that firms that use business value as the main object of management have an evident competitive advantage over firms focused on other economic criteria in their activities.

Before we move to the substantial aspects of market value management let us define this term and consider the main approaches to its definition. The market value means the price with which the object of evaluation can be sold in the market in a competitive environment. It is clear that while the object of evaluation is not offered for sale, there will be variation in estimates of the business value. In particular, it is due to the contradictions in the indicator of the market value of the business.

The five myths about the company's value are presented in the work [3].

1. Business value can be objectively evaluated. In fact, it is

impossible to take into account a lot of factors, both objective and subjective, that influence the market value of the enterprise shares. Among the difficulties and unformed factors there are rumors, market expectations, the possibility of market manipulation, reflexivity [4], political situation, collusion of market parties, etc. Moreover a company has a number of tools to influence the market value of its shares: the redemption of its own shares, their fragmentation and consolidation, the increase in total assets at the expense of borrowing, the announcement of a merger or company takeover etc. Consciously using those tools, the company may, within certain limits affect its own price. Based on the foregoing, the business value is not an objective assessment of the company's activity.

- Market value is the most accurate indicator of company's value. It is assumed that the market is informatively effective, that is investors making decisions, have full information about the company. But even in developed markets information is asymmetric, that is, market actors have different information and have to trust the information that is adapted by someone and it is a prerequisite for an inadequate evaluation of the company's value. Naturally, in the markets that are in the process of establishment, the problem of valuation accuracy is only getting worse.
- 3. The growth of business value should be the main goal of management. In practice, the goal of a manager, as any rational economic agent, is to maximize his own benefits. Above all business value expresses the interests of the corporation shareholders and it is almost not linked to the interests of managers. This creates a distortion in the balance of corporate interests towards the owners and tension in corporate relations, which in the end can lead to a corporate conflict. In such circumstances, it is impossible to talk about the achievement of the best activity results, suiting the majority of participants of corporate relations. Mechanisms linking manager's welfare with a

market value of the company, for example, through options do not work. As a result, managers are not interested in increasing the value of the business. Thus, the value of the company can play a role of one of the key priorities in managers' activity, but not the only one for them.

4. The owners are always interested in increasing the value of their business.

Owners as well as managers seek to gain benefits. For the owner, concerned with the current consumption, benefits associated with long-term prospects of the company can have no value. It may be advantageous for him to sell a share for a hundred rubles today than in three years for a thousand, and not only because he does not believe in the future. Opposite case is possible, when the owner would not agree to sell the business, let us say, for a hundred million, while its real value may not exceed fifty. So the purposes of the owner are quite different and this should be considered in the evaluation of companies activities. Company's value does not reflect this diversity and therefore it cannot represent the interests of managers and its owners.

5. Criterion of the company's value can express not only corporate interests, but the interests of the state as well. However, solutions that increase business value may undermine the state interests. So tax payment reduction increases the value of the company, but it does not meet the needs of society. The bankruptcy of "Yukos" is a good example. Opponents of the bankruptcy motivated cessation of prosecution by the fact that the company had the highest capitalization in Russia at that time, and it meets the interests of the state in improving the investment attractiveness of the country. At the same time the high capitalization was reached at the expense of underpaid taxes among other things. With this in mind, the state, expressing the interests of society, considered that it was more important to collect unpaid taxes than to increase

the investment image in the eyes of the world community.

There are other reasons for variation in assessments of market value.

In assessing the value of any business it is possible to use different approaches. There are three the most commonly used approaches which are in the regulatory estimation standards: cost-based, comparative (market) and profitable. They are understood as set of valuation methods based on:

- Determination of the costs needed to restore or replace the item, subject to its wear and tear (cost-based approach);
- Comparison of an object of evaluation with the same objects in relation to which there is information about the prices of transactions with them (comparative approach);
- Determination of the expected profit from the object of evaluation (income approach).

Let us explain briefly the nature of these approaches.

1. In case of the cost-based approach the business value is determined by the sum of costs which are necessary to create similar business. The new business has to be created by modern technologies with modern materials and equipment using prices fixed at the time of evaluation. However, there are a lot of examples when companies with

However, there are a lot of examples when companies with the same amount of costs for establishment of the business have very different results of activity and, consequently, the market values them differently. If we draw an analogy with a commodity, and the company in this case is nothing more than a commodity, companies have different use value. The fact is that bigger role in modern economy is given to intangible factors, such as "know-how", reputation, qualification of personnel, i.e. those moments, the costs of which are difficult to quantify.

That is why the cost-based approach is often complemented by the others, for example by profitable. 2. The income approach involves several methods, united by the idea of the benefits assessment gained by the estimated company in future. Different options are considered are considered as benefits[5], for example, dividends, profits, cash flow, free cash flow, surplus profit, etc.

It is assumed that the owner or co-owner of the company, the investor expects to receive certain benefits. The base model of the company valuation in this case is as follows:

$$CV = \sum_{k=1}^{\infty} \frac{I_k}{(1 + P_d)^k} \tag{1}$$

where CV – company value;

 $I_k$  – level of income in period k

 $P_d$  - required (desired) profitability for an investor.

The profit of the investor is associated with income as a rule. The investor's income from the ownership of the company consists of two components:

$$I = P_p + P_c \tag{2}$$

where  $P_c$  – present profit of the investor (dividends, interest etc.);

 $P_c$  – profit from capitalization, i.e. change of assets value for the fixed period of time.

Taking into account that the valuation of the company happens at a particular moment it is possible to increase the market value significantly providing sufficient current income and, thus, increasing the mathematical expectation of future income. It is simple and clear way to manage the value of the company.

Note, however, that growing current income is often accompanied by a reduction of long-term potential of the company. Wear and tear of equipment, excessive marketing costs, lack of investment in staff development, non-payment of dividends and other similar events contribute to a significant increase in market value in the short term. But it is unlikely

that it will lead to a similar outcome in the long term. Hence there is the conclusion that market value indicator cannot be the sole criterion of a successful enterprise. There is the need to link indicators characterizing the long-term potential of the company.

Speaking of unpaid dividends one of the most successful investors of our time Warren Buffett describes in his book [6] this option to increase the market value of the company.

In the practice of corporate management strengthening of managers'incentives is usually determined by the options for buying shares of companies they manage. The higher the market price of the shares at the time the option is exercised, the more profit the managers will get from the sale of the option to purchase. It is believed that in this way the managers and the owners are in the same financial boat. But in reality, these boats are very different. Managers adhere to the principle "you get more if you invest more" to increase the corporate income. It means that you do not have to make any extraordinary effort; you just need to increase the capital. It can be easily done by undistributed profit: the more profit of the company is undistributed, the more capital gains and, therefore, profits. It is pertinent to note that the undistributed profit is the profit of the corporation, which the owner does not get. It looks like that the manager of the company works more successful if he puts his hands in the pocket of the owner. In this case managers gain in the value of an option due to undistributed profits and not because they manage the capital so good. A manager receives substantial premium to the salary for the shareholder's account simply holding most of the profits of the owner, and as a rule, regardless of the effectiveness of his activities. It becomes apparent that increase practices of shares market value by increase of the current income of corporations are vicious.

It emphasizes the contradictions that contain an indicator of market value and its valuation based on the income approach.

3. The comparative approach is another way to calculate the market value, which allows us to classify the company. In the comparative approach evaluated company is compared with similar enterprises when their market value and specific indicators of activity are known. The method is based on the fact that information on the activities of market actors is fair and objective. But as we know, information is asymmetric, which distorts the outcome of the valuation. However, the combined use of the three approaches can help to get an idea of the market value of the object.

#### 1.2. The main problems in management of company value

It is necessary to note another important point in the management of the market value - the subjectivity of valuation. Let's consider the formula (1). Subjectivism appears in the valuation of the two parameters. First, the subjects of valuation have an idea of future income. They have different information, use different methods of forecasting, have different skills and experience, some of them are optimistic about the future, some are pessimistic. As a result, forecasts of future income can vary greatly. Second, investors have different requirements on the rate of return, which depends, in particular, on their risk appetite. Dependence of these two parameters is well known from the theory of financial management. We briefly recall the main points.

Dependence of risk on return is a direct proportionality. See Figure 1.

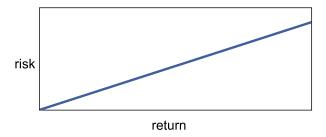


Figure 1. Dependence of investment risk on return.

The higher return the investor prefers, the more he should be ready for non-receipt or shortfall of return. It follows that there are two objectives in the investment management:

- 1. Receipt of the maximum return for a given level of risk.
- 2. Minimization of risk at the fixed rate of return.

However, mostly, there is a different task, which is called a compromise between risk and return, in particular, the achievement of a reasonable balance between risk and return. Naturally, everyone has his or her own concept of the "reasonable balance" and an acceptable rate of return as well.

It leads to the fact that even with fair information, valuations of business market value may differ significantly depending on the subject of the valuation, which makes it difficult to manage the market value.

Placement of companies' securities at the stock exchange considerably facilitates the valuation process. Besides the duties of an appraiser are attributed the stock market. In this case, the value of the business is formed as a result of correlation between supply and demand of company's securities on a stock exchange. It seems to be a fairly reliable tool for forming the market value. However, there are nuances that need to be considered in the management of the business value.

As it has already been noted, managers often are guided by short-term growth in stock prices. It is related to the fact that shareholders try to motivate management to achieve certain key indicators, the main of which is the capitalization. As a rule option programs, the lack of which we have described above, are used for this. Another option - when executives' bonuses are directly dependent on the dynamics of the stock price. In [7] there is an example of the ineffectiveness of the practice. There is a Russian company, where managers, fighting for capitalization, cut costs actively, including they reduced investments in equipment. As a result, the shares rose in value, the managers received a bonus, but the company lost the opportunity to develop steadily. In addition, big corporate scandals connected with the fiddle of the financial statements, are just a consequence of these incentive programs. There is rightly observed that in today's realities management effectiveness is evaluated by other indicators, such as return on investment, total return per share including dividends, etc. That is we can see attempts to focus on several interrelated factors in the management of the market value: income, assets value, the amount of paid dividends plus the already-mentioned capitalization. The modern tools of market value management should be formed with coherence between the key activity indicators. This is the key statement in the further development of methodology of business value management.

To prove the ambiguity of the market value indicator, taken separately, let us give a few more reasons:

- 1. Not all companies trade on the market. The ability to change the owners freely depends on the legal form of the company. Public corporations are the most adapted to the buying and selling because their shares can be freely traded on the financial market. However, the need in market value management of subjects that have legal forms which are different from public corporations does not decrease. This applies, above all, to close corporations and limited liability companies. Nobody cancels their function to make their owners richer. In addition, the shares of not all public corporations are traded on the stock market, and it makes difficult to evaluate the business, and therefore its management;
- While there is no the sale, the market is unable to evaluate the cost. Indeed, reliable market value can be determined only after the fact of sale. But not all companies are sold, while the need in determination of the market value is constant;
- 3. The speculative nature of the value forming in the short term. The current value of the business on the market is formed by the action of factors that may not reflect the fundamental characteristics. These include, for example, rumors, manipulation, collusion, panic, excitement, etc.;

4. Inability to account all the factors that make the value. It is formed by a large set of market factors that affect more or less the outcome of the evaluation. The main factors are the time and risk. Among the other factors we can mention market conditions, the level and type of competition, the economic characteristics of the evaluated object, its market reputation, as well as the macro - and micro economical habitat.

In [8] there is an example of multi-factor model BARRA to evaluate the securities of a company, and it can be considered as one of the option to calculate the company's value. The model is based on work of Barr Rosenberg, econometrician in Berkeley University in the U. S. He took the 68 factors affecting the value of company's securities, and, consequently, the decision making in the management of the market value.

Among these factors there are obvious factors, such as the expected rate of GDP growth, inflation, interest rates, oil prices, and there are completely unexpected factors as well: accepted forecast of the revenue growth of the company, the volatility of its revenues in the past, a number of analysts on securities processing data shares of the company, etc. One can assume that this is not a complete list of the factors that make the market value.

And although the model BARRA is widely applied abroad and it gives good results, the model has a significant drawback - it uses mostly the factors which are in the environment of indirect influence of an enterprise and, therefore, they are outside the scope of management. The company has a low potential to influence the state of the named parameters, and thus to influence them, that is to carry out the process of management.

 Heterogeneity of requirements to the results of the company on stakeholders' part. Each of the stakeholders (shareholders, customers, suppliers, creditors, government, etc.) evaluates the business, using their own criteria and indicators, which do not always coincide with the requirements of the other parties. They evaluate the firm in terms of their own interests. If the stakeholder is not satisfied with the results of the enterprise, it will exert pressure to change the situation. This creates uncertainty in the management of the market value and in the fact what measures are needed to be implemented to increase the value of the business;

6. The dependence of the market value on the achievement of the targets. Forecasts of market actors concerning the development of enterprises tend to be overly optimistic, and the goals, as a result, are unreasonably high. The discrepancy between the forecast on the financial performance and the achieved results diminishes the value of the company on the stock market; for example, the case with one of the largest Russian retailers "Pyaterochka" in December 2005. [9] The fall in share prices leads to dissatisfaction of shareholders, as their well-being, a part of which is the market value of their shares is reduced. The reasons for this are sought by the owners in the work of managers, although initially this problem is in the shortcomings of planning. Therefore, management of market value, based on the establishment of performance targets, even coordinated at all levels of corporate management, is fraught with unpredictable consequences for the owners of the enterprise, and their managers. Taking into account that forecast can't eliminate the uncertainty completely, the management of the business value, based on a forecast of the key financial indicators of the activity, leads to significant variations in market values and, thus, affects the business.

Taking into account the presented arguments, there is the question: why is it important for an enterprise to know its fair market value

First, the market value of the business is an indicator of the total wealth of owners of the enterprise. The further

development of the company depends on satisfaction of shareholders with the value of the shares. Effects of inadequate market value of a business, from the point of view of the shareholders, can be very different: from change of management to liquidation of the company. These effects significantly affect the functioning of the company and, in this context, the rate of the market value is subject to regular monitoring and it is an indicator of the mood of the shareholders, and, therefore, their actions towards the company.

Second, any system including corporation of course must have feedback. The absence of feedback leads to an unstable state of the system, which threatens the unpredictability of its development. This, in turn, leads to a lack of control of the system. The market value of the business, formed in the stock market is the feedback. Just its changes characterize the results of managers in the management of their enterprises. You will not find another indicator that would explicitly demonstrate the results of the actions of those who are responsible for making decisions. The presence of the fair market value of the business shows the manageability of the company, hence the need for its regular assessment, monitoring and management. By the way, those companies whose shares are not traded on a stock market essentially impoverish its management, since there is no abovementioned feedback with all the ensuing consequences.

Thirdly, the market value of the business can be seen as a key outcome indicator of the company's activity. In practice of management quite a number of indicators are used. Some of them can meet the existing criteria, some cannot. However, it is necessary to give some final, general characteristic of the results. We have already mentioned that there are different approaches to the selection of a single summary indicator. We have shown the drawbacks of the market value, as the summary indicator. However, today it is the only indicator that characterizes the activity of the corporation, and on which it is possible to work together for further development of the company. Besides the market value is an indicator that is under the close supervision of owners. Note that in this study, in the future, we will try to correct the shortcomings which are inner in the market value, as an integral criterion, and offer a vision of the final solution to the problem of a summary indicator of activity.

Fourth, the market value of the business is an indicator of the ability of the company to attract external funding. The company in its activity uses different sources of funding. In accordance with the concept of value of capital, they cost differently. Enterprises with high financial risks attract capital at a higher rate or have to take on additional obligations on dividend payments. High business capitalization indicates a lower risk. Consequently, the possibility of outsourcing is much higher compared with businesses with a low market value. In addition, the high market value is an expression of confidence of investors, who, if necessary, help in the form of additional funding sources. A striking example of this is the story of the current financial crisis. No major financial institution, even if it declared bankruptcy, has disappeared from the face of the earth. All of them received various financial support of the government or private investors. At the same time, financial institutions with low capitalization did not survive during the crisis. Therefore capitalization is a kind of guarantee in the competition for financial resources. Resources, including financial, are limited, but there are lots of those who wish to use them. Firms with high capitalization are the first in the queue.

Fifth, capitalization is an indicator of success in relation to competitors. Comparative analysis of the competition reveals reserves of further growth of the company; it evaluates opportunities to improve performance, it helps to realize the potential due to industry-specific. With other indicators it can be difficult to compare yourself with the competitors, sometimes it is impossible. The market value is more or less objective and accessible indicator, besides different indicators can show a discrepant picture in comparison to the competitors. We have returned again to the need to create a summary indicator that can give summary, final assessment of the activity results. And

in this case the market value (capitalization) of the business serves as such indicator.

However, with all these advantages there are some contradictions which are inner in the market value indicators. We specified them earlier. Now, based on these arguments let us agree with the fact that the market value must be managed, therefore, it is necessary to determine what factors form the market value of the company.

In [10], there are two groups of factors of business value: fundamental indicators and corporate management. The fundamental factors include the parameters that determine the future cash flows and, according to (1) determine the current value of the business. Among the fundamental factors we can find:

- 1) factors of operating performance: sales growth, return on sales, etc.;
- 2) factors of investment performance: efficiency of investment in current assets and long-term assets;
- 3) financial performance factors: optimization of the structure and the value of capital.

Concepts and practices for managing key fundamentals are well known and established. However, there is one important point to consider in the fundamentals management. Let us describe it.

Let the growth of fundamental indicators - earnings, assets and profits -for the past three years was as follows (Table 1):

Table 1

Indicator	Growth rate %		
mulcator	1st year	2nd years	3rd year
Revenue from the sale	105	106	117
Total assets	102	108	120
Net profit	110	112	115

Such reporting is likely to serve as a basis of the claim that in recent years, the financial activity of the company is at a high level and, moreover, it has a tendency to improve. Growth rates of presented indicators confirm it - they grow more rapidly. However, we perform a simple conversion of the table. We replace the value of the growth rate with the ranks of these characteristics, calculated in non-decreasing order. The ranking allows comparing which of the indicators is growing at a rapid pace, and which is the slowest (Table 2).

Table 2

Indicator	Growth rate %		
Indicator	1st year	2nd years	3rd year
Revenue from the sale	2	3	2
Total assets	3	2	1
Net profit	1	1	3

Experts in the field of corporate finance note so-called "golden" rule: "The growth rate of profits must be greater than the rate of revenue growth, the latter must be more than the rate of growth of assets..."

Hence, without special calculations, we can see that despite the annual growth of the indicators, and acceleration of their growth, the situation has worsened in the second year and not improved, and by the third year, it was further aggravated.

The example is very simple, but it underlines the problem. In addition, with the aim of analysis far more indicators are considered, many of which have dynamics which is not recommended. In this case:

- even among the same type of indicators considered in one group, the trend of the results can vary considerably;
- with such conflicting dynamics of indicators it is impossible to ascertain the final result of activity of all considered factors, that is, to reveal how successfully the

company has developed;

• it is difficult to determine which areas of business management are the most problematic.

Besides, the selection and justification of the contribution of individual indicators to the final value of the company is difficult because of their heterogeneity, and here, as a rule, subjectivism of assessments may significantly distort the desired result. Consequently, the management tools of the business market value should consider the relationship of heterogeneous indicators, eliminate subjectivity of assessments, and identify the most important factors of value forming.

The second component of the market value is corporate management. In [11] corporate management is considered as a joint activity of the business owners and managers employed by them to ensure a fair balance of interests.

The problem lies in the fact that shareholders are considered as owners, who hire managers-agents. Agent's activities should be directed to increase the wealth of shareholders, which may occur, for example, by increasing the company's value. However, in practice, the efforts of managers do not always address the needs of shareholders. This is especially true in regard to alternative solutions, some of which provide a quick profit, while others are long term.

Causes of conflicts of interest in corporate management are rooted in self-interest of members of the executive body of the company. This interest may be positive. So senior managers prefer to manage large companies or have substantial financial resources. It follows that most of the profits they will seek to keep at the disposal of the company and not to pay dividends to its owners, which may not suit the shareholders. Or, for example, concern for the social protection of personnel and desire to work with highly qualified managers urge managers to increase the costs of the company and hence it declines profits, etc. Although these activities are not beneficial for owners in the short term and they are perceived ambiguously by them, they often lead to increased efficiency in the long-term

and, in the end, to increased company's value and shareholders' wealth. Besides, such actions do not cause direct damage to the owners, as in the case of lost revenue in the form of dividends, shareholders can provide their wealth due to the growth of capitalization of the business.

As a rule wage is the main form of compensation for managers. Other forms of compensation play a lesser role for them. Therefore, corporations'managers seek to extend the period during which they will receive a guaranteed income. To do this, they try to ensure the sustainability of the company and reduce the risk of unforeseen circumstances. Interests of shareholders are diverse, and they are ready to participate in highly profitable projects with high-risk, as they diversify their investments among several companies.

In the corporate management there is negative interest of managers as well. It may be manifested, for example, by the output of the company's assets in their favor, awarding ownership of shareholders, employment of relatives, taking bribes for the support of a decision, personal enrichment, concealment or misrepresentation of the results of the company, etc. Many of these actions are obvious crimes. However, as the practice of corporate management shows (for example the case with "Enron" in the US), it happens quite often, even in countries with strong traditions of management, not to mention economies in emerging markets.

That's why corporate management is a system of coordination of mutual interests of managers and shareholders, which determines the success of the company. Procedures for the coordination of interests must be open and clear to interested groups, allowing them to form their own attitude to the corporation. Transparency of corporate business, in the end, will allow it to accumulate significant investment resources, scattered among numerous potential investors, even in the tough competition for them. That is why the regulation of relations "owner - manager" is crucial for the development of both individual corporations and society in general.

Moreover, the formation of corporate relations must satisfy not only the interests of investors, but also provide sufficient autonomy to managers and create conditions for their initiative. Any imbalance can cause serious problems. In the case of excessive over-regulation of managers the corporation inevitably loses flexibility, which weakens the competitive position of the company in a fast-paced environment. In the case of an imbalance in the interests towards the managers there is dissatisfaction of the shareholders, who begin to take measures - from their dismissal to liquidation of the company, which is disadvantageous neither for the managers nor for the owners.

It is expected that the better the balance of corporate relations, the higher the value of the business. Consequently, affecting the balance of interests purposefully, it is possible to manage the value of the enterprise. In the present study, this hypothesis is going to be tested.

# 1.3. Mechanism and factors of formation of enterprise market value

In real life [1] cascade of parameters which are recommended to measure the value falls upon the managers:

TRS (total return to shareholders), DCF (discounted cash flow), EP (economic profit), EVA (economic value added), CFROI (ROI calculated at the cash flow), ROIC (return on invested capital), EPS(earnings per share), rate of return and so on. An analysis of a representative number of indicators sometimes distracts managers from the main thing, why there is need in valuation: to help them to make decisions and direct them to the increment of value.

Comparison of indicators with different essence and purpose only increases the confusion. Moreover, some of them are used in strategic analysis, some are used in the short-term, all of these make it more difficult to valuate and manage.

Proponents of these or that market value indicators use various arguments of their preference in comparison to the other indicators. Someone thinks that the economic criteria (e.g. economic profit) are preferable to account (for example, profit per share). Others try to find a reasonable trade-off between short-term and long-term results. However, as rightly pointed out in [2], there are no perfect indicators of effectiveness. The only objective criterion is the cost, which is formed by the market. But, as it has been already noted, not all companies trade on the market and, in addition, market participants have their own idea of a fair price, based on certain effectiveness indicators. Investors use various indicators, therefore, their perceptions of fair value do not match. However, the company cannot have multiple market values at the same time. The question is: whose opinion on the value of business is fairer?

To solve this problem, many experts use complex systems with a combination of different economic indicators that describe various aspects of the company. Based on them processes of business value management are described. We suggest the following scheme for the formation of value of the company (Figure 2).

Factors of value creation, interacting with each other, lead to results that are expressed by certain financial indicators. They provide the possibility to extract the value. Enterprise, directing efforts to various value factors, provide a variety of financial results. Value factors and their unique use provide a competitive advantage of the company and they are the subject of trade secrets and, as a consequence, they cannot be explicitly valued by the market. The market valuates only the result of the value factors - financial indicators. They are a sort of "wrapper" of the company, in which it appears to the market. Financial indicators form the basis of business value. Company valuation by the market begins with them. That's why companies try to ensure the attractiveness of their financial statements, resorting to not always honest methods. Recently manipulations of financial statements have acquired threatening scale and it has made the financial authorities in different countries to change the law.

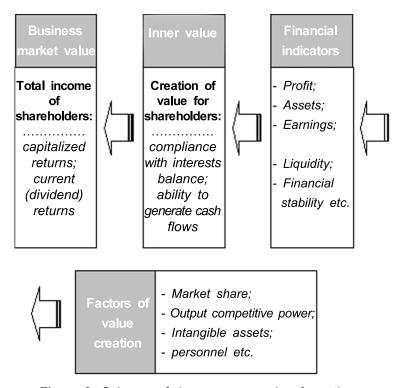


Figure 2. Scheme of the company value formation.

Indeed, how often there is a sharp rise of stock price after the publication of reports. Deliberately and legally embellishing the results of activities corporations may affect their value. As a result, there is the emergence of the concept of management of key performance indicators (KPI), which is closely related to the concept of value management. Deliberately influencing key indicators, especially the most popular in stock market (profit, sales volume, total assets), companies make the market to evaluate their value higher.

Separately financial indicators give distorted and mixed information about the inner value of the company. This is confirmed by the above example with three indicators. In practice, the market uses a much larger number of indicators,

Table 3. Financial indicators of the corporation for the period 2004-2007

Coefficients Sig		gn Formula	Periods				Real	Recommend
Coefficients	Sign	Formula	2004	2005	2006	2007	dynamics	ed dynamics
Liquidity ind	licator							
Current ratio	C <sub>r</sub>	Current liabilities	0,639	0,607	0,852	0,869		
Liquidity rate		Current assets- Resources and incomplete production	0,537	0,545	0,789	0,798		
Business act	heller in	Current liabilities						
Stock turn	ivity in	Annual revenue						
rate	Sy	for sold output Salable and material resources	14,22	14,82	16,73	15,01		
Collection	Rc	Debit debt					$\overline{}$	
average time		Annual revenue for sold output/360	66,02	82,31	59,85	62,37		
Payback rate of total assets	$R_{pa}$	Annual revenue for sold output Total assets	0,544	0,386	0,373	0,388		
Payback rate of original capital	R <sub>poc</sub>	Annual revenue for sold output Original capital	0,892	0,773	0,852	0,939		
Capital struc	ture in	dicators						
Rate of "owner's quota"	R <sub>oq</sub>	Long-term debt Stock capital	0,825	0,329	0,650	0,537	<u>~</u>	
Debt ratio	R <sub>d</sub>	Joint debt Total assets	0,660	0,604	0,603	0,578	_	
Interest cover	Ic	Income before interest and tax payment Interest payment	6,962	5,358	5,751	5,519		
Profit indicators								
Return rate	Rr	Income after interest and tax payment Total earnings	0,117	0,194	0,196	0,189		
Rate of assets return	ROA	Income after interest and tax payment Total assets	0,064	0,075	0,073	0,073		
Rate of return on capital	ROE	Income after interest and tax payment	0,211	0,225	0,261	0,292		
		Stock capital						

and that is why there is more uncertainty in the valuation of the inner value. Consider the following example. The table 3 presents some of the financial indicators of the hypothetical corporation.

The table shows that some indicators meet the recommended standards, some of them do not. What conclusion can we make about the final result of the company? How does it affect the value of the business? Does it create value for shareholders? How will the market accept these results? There is no decisive answer to all these issues today. In the next chapter, we are going to show the possible solution of this problem.

The next element of the formation of the market value of the business is the inner value. The inner value of the company is the ability to create value for its shareholders, both current and potential. There may be many of them. For each individual investor, the same company has a different inner value, because they have different ideas of the values created by the company. Some of them are interested in the rights of investors, the shareholders and the Board of Directors. Others are interested in financial performance: profits, revenues, assets, indicators of market activity. Third are interested in the amount and frequency of dividend payments. Fourth are interested in the possibility of vertical integration, etc. The list can be updated and expanded many times.

This diversity of opinions creates uncertainty in the valuation of the inner value of the company, making it difficult to control the business value. You cannot manage so many factors simultaneously. Management of the enterprise cannot disperse efforts and give equal attention to all factors of value. It is necessary to concentrate on the most important ones. This raises a serious problem.

A lot of specialists have worked and are working now on the problem of the key factors in the formation of business value. And they all reasonably justify the priority of different factors (see for example [1, 10, 13]). Their importance varies considerably from specialist to specialist, depending on their belonging to scientific trends. Naturally, such a state of affairs leads managers to utter confusion in selecting of actions to increase the market value. The lack of certainty in this issue is a serious drawback of the concept of market value management and requires additional research.

In one of the most fundamental works on the value of the company [2] the discounted cash flow is the main indicator of the true inner value. It determines the specific investment opportunities of the company, and they, in the authors' opinion, add value. This idea is supported by numerous examples.

However, the authors themselves point out that this criterion is not suitable for the evaluation of past results, as it is calculated on the basis of forecasts. It is difficult to develop a plan for further action without checking the achieved results. It is not enough to know the direction; it is necessary to know whether we go in the right direction. Moreover, the forecast of results is always uncertain and management the company only on the basis of forecast data adds even more differences in the valuation of the market value by investors.

Another disadvantage of the discounted cash flow is that in itself it is difficult to identify and measure. An additional criterion of value for shareholders is needed.

In [11], compliance of interests' balance of participants in corporate management is offered as such criterion. We will return to it in the next chapter. Now we just add that balance of economic interests is understood as interaction between the partners, when the results of their joint activities are better compared with the results of their separate function for each of the parties concerned. In other words, the state of balance in the interaction of partners is a sign of the economic feasibility of cooperation for all interacting parties. And for the balance of interests is imperative that both parties realize their interests, at least partially, that is, their interaction meets the criteria of economic feasibility.

It is assumed that the compliance of interests balance creates the market value of the company. To substantiate this hypothesis, we consider the formation of the market price of a business based on inner value.

A particular subject, making a decision to invest, compares existing at the moment market price of the company with the results of the company and how they meet his needs. Does the company value to him as a shareholder? That is a potential investor compares the market and the inner values of the enterprise and it has a different meaning for each investor. Further, there are three possible situations.

- 1. The inner value of the company for a particular investor is above its market price. From his point of view, the company is underestimated by the market. Consequently, an investor buys shares of this company, because, in his view, the market price will tend to its inner value. The greater the difference between the inner and the market values, the more likely there will be purchase. Buying shares, the investor increases demand for the shares, which lead to their growth. The more there are such purchases, the greater the growth is. Finally the more investorsshareholders appreciate the inner value, the higher the market price of the business. Evaluation criteria, as it has been noted, of different investors do not match. Therefore, the evaluation criteria in terms of one, even integral, indicator are not suitable for the management of market value. It is necessary to link various indicators.
- 2. The inner value of the company for a particular investor is below its market price. The situation is opposite. From the point of view of the investor the company is overvalued by the market, therefore, he will have the opportunity to buy shares of this company cheaper than at the moment. He is confident that the market price of the share will tend to its inner value. Therefore, it is expedient to sell the shares and then to buy them cheaper. Thus, investors, selling shares, reduce the market price of the company.

The more there are sales, the greater the reduction is.

The inner value of the company for a particular investor is equal to its market price. This situation of uncertainty, in which most investors would prefer not to deal with shares of the company.

It is simple and clear way of forming of a market value of a company. The more shareholders are satisfied with the results of the company, the higher the market value is.

This raises two points:

- Difficulty of measuring shareholders' values. Owners evaluate the activities of the company according to their own criteria, which are not always quantified. Or a set of indicators used in the evaluation, does not have a definite interpretation, as it has been shown in the examples above. This leads to difficulties with the formation of inner value, and therefore, with the management of the market value.
- 2. Considerable variation in the requirements both on the part of interest group in general and each shareholder individually. This would make the process of formation of the inner and the market value almost unmanageable, because it is impossible to meet all the requirements of the owners of the company. However, managers are able to manage the market value. For this, the interests of the majority of shareholders would have to be satisfied, at least partially, and the results of the company, which may be called the results of joint activities, would become better. The latter means that the dynamics of the results, whether quantitative or qualitative, must be positive. And that is a balance of interests.

Controlling the balance of interests, the company's management can influence the inner value, and hence the market value. It is not necessary to know the quantitative meaning of the evaluation of inner value; the main thing is to set the direction of its change and to identify factors with the greatest impact on its growth.

So, we can formulate the following main features of managing the market value.

- 1. Company's value is influenced by many factors, some of which are not estimable.
- Priority of indicators that have the greatest impact on the market value of the business is treated ambiguously by professionals and managers of enterprises.
- 3. It is difficult to assess the impact of individual indicators on business value.
- 4. The inner value of the company depends on the level of balance of diverse interests of shareholders and managers.
- Not quantified valuation of the inner value of the company is important, but its change. Improvement in the balance of the interests leads to an increase in value of the business.

Thus, the management tools of business value should be based on an assessment of changes in the balance of interests and the inner value of the company. Those activities and solutions that improve the balance of interests should be implemented according to the results of the evaluation. This, in our opinion, is the essence of value management. In order to measure the true value of the company and manage it effectively, let us consider the principles of value management.

- The fundamental principle of the existing and emerging enterprises should be the basis of the business evaluation. From the position of the enterprise the leading role belongs to the analysis of the profit dynamics, revenue, performance and assets. The values of these parameters allow determining the potential "growth points" of inner- value and, as a consequence, the direction of application of the main efforts of management.
- The principle of substantial compliance of the manipulated influence and controlled process. Analytical methods and rules of research of company's value in some way are subordinated to the controlled process that is the value

management. This principle derives from the necessity of the practical use of data of analysis to manage the company's value, to develop specific activities, to justify, to adjust and to refine management decisions.

- The next property is informativity. The information used in the evaluation of the business, should really and fully reflects the economic situation in terms of its limitations, and its conclusions must be supported by accurate analytical calculations.
- 4. We also note the property of the common methodology used to analyze the performance. Otherwise, the method should be applicable to a wide range of firms, regardless of size, industry sector, uptake in the stock market, the scale of operation and so forth.
- The property of operationality means that the management has the task for which it was created, that is, to increase the value of the business.
- 6. Methodological simplicity is also important. The simplest approach of value management is chosen from the possible approaches. The approach should be designed for the average Russian company, and therefore it does not require a big financial, intellectual and information costs and it is easily adapted to the specific economic conditions.
- 7. Value management should be based on a *balance of interests*.
- 8. Value management of a company should be based on the ability of capital to return interest, rather than legal factors of the company. Organizations that do not meet high standards of corporate management can have significant revenue for its shareholders, and vice versa, firms with high standards do not meet the expectations of the owners in financial results. Therefore, the value management of the business should be done in the plane of financial indicators, not the organizational and legal characteristics.

The following are two important principles that are essen-

tial to take into account the diversity and heterogeneity of investors' interests, roll them into a single numerical characteristic to formulate criteria of balance of interests. They are the dynamic comparability and dynamic hierarchy of indicators. Because of the special significance let us consider them in the next chapter.

According to the materials of the first chapter, we can make the following conclusions.

- 1. Among market actors there is no consensus why there is a company. In this case, the main objectives are: profit, revenue, assets, market value, etc. Each option has its advantages and disadvantages. However, the main purpose is the increase the total wealth of shareholders, which organizes all the other goals, and ensures that in the long-term investors will provide capital to a company.
- 2. Welfare of the owners of capital is made up of current and capitalized income. Contribution of the second source to the total welfare is much higher. Capitalized income becomes apparent in the increase of the business market value. That is why there is the need in regular management of company's value.
- 3. Enterprise management should be aimed at ensuring the growth of the business value, rather than its maximization. Otherwise, the concept of value management of a company faces many limitations and becomes hardly applicable in practice.
- 4. One of the main difficulties in the value management is its evaluation. Variability of evaluations can be quite substantial, depending on the method of evaluation, investor views on the future of the company and required return. Therefore, managing the value it is necessary to focus not on its numerical value but its change.
- 5. In the arsenal of the company managers there are number of tricks to increase the market value in the short-term at the expense of long-term prospects. Therefore, market

values cannot be the sole criterion in the value management. There is the need to link several indicators characterizing the growth of the company and its value. For the same reason, the motivation of managers to increase value based on option programs is poor practice, which exacerbates the division of interests of owners and managers.

- 6. Valuation and management of the subject are liable to subjectivism, in particular, due to investors' attitude to risk and return. The only objective indicator is the market value of the company, which has restrictions on use. Among them, there are the needs for purchase or sale, shares traded on the exchange, speculative character, influence of many factors, and the heterogeneity of demands from interest groups. It is necessary to develop such a criterion of value, which would eliminate mentioned restrictions.
- 7. Knowledge of market value, in spite of the limitations, provides the company with the following important information: the indicator of welfare of the enterprise owners, feedback from the external business environment, the key outcome indicator of performance, the ability to attract external funding, and the rate of the company's competitiveness. Therefore, the regular evaluation of the market value of the company is necessary and it allows analyzing the results of the company and its management.
- 8. Business value is formed as follows (see Fig. 2):



The presented mechanism explains how managementbased on financial indicators (according to the concept of KPI) can form the inner value and, further, influence the market value of the company.

9. There are two groups of factors of business value: funda-

mental indicators and corporate management. Application of fundamental indicators separately significantly distorts the information about activities and value of the company (see example). In addition, traditional approaches to the management of indicators do not allow selecting and justifying the contribution of individual indicators in the final value and eliminate subjectivity of evaluations. It is required to consider the relationship of heterogeneous indicators and formalize the selection of the most significant factors of the value forming.

- 10. Corporate management is treated as a joint activity of the business owners and managers to ensure a fair balance of interests that do not always coincide. The reasons may be different, both positive and negative. Consequently, management of company's value must be implemented via the financial indicators of the balance of interests.
- 11. The choice of indicators of business value varies depending on the subject of management. There is the question of the validity of one or another estimate of the value. To solve this problem complex systems are used. However, systems that use even impressive set of indicators, but not taking into account the dynamics of their relationship, give distorted and mixed information about the value. The more indicators, the more lack of clarity.
- 12. A balance of interests of participants of corporate relations is offered as an integrated system of indicators. The more the participants are satisfied with the results of the firm, the higher the inner value, and as a result, the market value.
- 13. Establishing a market value of a company is a result of comparison of its inner value and market price. The higher the inner value for the majority of investors in comparison with the market price, the greater the increase in market value. And vice versa. This fact should be used as a tool for value management of a company. Providing positive momentum of indicators characterizing the ability to create

- value for shareholders, managers thereby contribute to the growth of business value.
- 14. The essence of business value management can be specified as the implementation of measures and solutions that improve the balance of interests.
- 15. The principles of value management are the following: the principle of existing and developing businesses, meaningful compliance of controlling influence to controlled process, information value, common methodology used to analyze the results; operationality, methodological simplicity, the management should be based on the balance of the interests and on the ability of capital to generate income, dynamic comparability and dynamic hierarchy of indicators.

#### Chapter 2.

### METHODOLOGICAL ASPECTS OF BUSINESS VALUE MANAGEMENT BASED ON BALANCE OF INTERESTS COMPLIANCE

- 2.1. Original properties of tools in market value management
- 2.2. Standard dynamics of key indicators is a fundamental criterion of market value growth
- 2.3. Assessment of interests' balance of corporate management parties
- 2.4. Influence of the interests' balance on market value of the company

#### (Chapter 2)

## METHODOLOGICAL ASPECTS OF BUSINESS VALUE MANAGEMENT BASED ON BALANCE OF INTERESTS COMPLIANCE

- 2.1 Growth Original properties of tools in market value management
- 2.2 Standard dynamics of key indicators is a fundamental criterion of market value growth
- 2.3 Assessment of interests' balance of corporate management parties

## Original properties of tools in market value management

Before the construction of tools market value management let us formulate the basic starting points.

First, business value management should be aimed to increase the value and not to maximize it. Indeed, any maximization implies that the next value of a parameter will be less than the maximum. While shareholders hope that their aggregate welfare, at least, will not be reduced. In addition, having reached a sufficiently high market value it cannot be said that this is its maximum value. We can only say that this is the highest value over time that is the indicator has increased over a period of time.

Orientation to maximize the market value may force management to increase the value of the business in the short term at the expense of long-term development. Therefore, it is better to focus on long-term growth of market value, rather than its maximization in the short term.

If we consider the maximization of the market value as the task of function optimization of the given criteria under constraints, then as a limitation, as a rule, there are the state of the external environment and the internal resources of the company. The environment is constantly changing. The modern development of financial and other markets allows bringing the required amount of resources. Consequently, the constant changing of restrictions leads to a change of the maximum value, making the task of finding the extremum meaningless.

Second, the growth of market economy cannot be permanent because of economic cycles. Decline in market value is accompanied by deterioration of the performance of other companies. However, after some time the next stage of the life cycle will come, and the prerequisites for long-term growth will appear. If we look at the US stock Dow Jones, the average stock prices of the largest companies in the US, we can see that in the long run, the market value of the shares has been increasing despite the crisis the 30's, 70's (Figure 3).

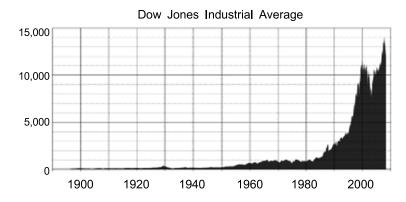


Figure 3. Dow Jones index for the period 1900-2008.

However, the cyclical downturn in the economy may put pressure on the market value of the business, even if the results of the company meet the expectations of investors. It is necessary to mention in this case that the market value of those businesses that during the recession have better financial results shows the greatest growth as the economy recovers. Therefore,

management of market value should be focused not so much on its steady growth, but on its continued ability to grow regardless of the stage of the economic cycle.

Third, the management of key indicators, representing the interests of the owners of the company is in the basis of market value management. Making any decision, including investments, market actors rely on the available information. Objective formalized information suitable for processing can be obtained only on the basis of indicators of financial and economic activity. That is why there is emphasis on achieving acceptable to the market values of the indicators. More often [15], as these indicators are considered: sales, profit after tax, total assets, number of employees, the share capital, etc. The positive dynamics of performing indicators inevitably leads to growth of the business value, as it demonstrates the firm's ability to generate cash flow and meet the growing financial demands of investors.

Firms develop a system of key indicators which, in their view, characterize it as successful. Thus they provide a signal to investors about the likely growth of the business. Investors, in turn, must assess the credibility of information on the achievements of the company and the adequacy of the performance, and then decide whether to invest in the firm, thereby they impact the market value of the business. This raises a number of problems.

- legally permissible variation of financial reporting and financial results of the enterprise allows the latter to represent in a favorable light their activity for the investment community. Some simple manipulations with reports provide the ability to hide real losses on off-balance accounts, and a company continues to be, in the eyes of the market a successful company. Remember the story with "Enron" and other US and European corporations, which for a long enough period of time under the law misled the entire market with their results:
- trade secret protection does not allow to disclose fully the

information about the firm [39], although the law requires corporate managers to do this. Indeed, the company-competitor or raiders (corporate invaders), buying a small number of shares, could have access to the financial and other information in order to use it for their own selfish purposes. Such actions are a serious threat to the existence of the company, so to preserve trade secrets in order to meet the interests of the owners there is a limited amount of information in the public domain. This leads to the fact that investors, evaluating the business, use only the available information, which is in the public domain, for example, the formal financial statements;

- analysis of heterogeneous indicators with traditional methods gives a mixed picture of the results of the company. The example given in the first chapter, eloquently demonstrates this fact. Satisfactory results even on all parameters can be not so good if we consider the dynamics relative to each other. Therefore the important properties in the management of key indicators are their dynamic hierarchy and dynamic comparability.

Performance of the company, which characterize the interests of shareholders and managers, change over time, it can be better or worse than their expectations, it can suit or not the various interest groups. Moreover, the combined interests of owners and management of the company may change over time: today shareholders have these requirements for profits tomorrow others; today managers are satisfied with the results achieved, tomorrow - no. Therefore, when managing the business value it is necessary, on the one hand, to give a dynamic view to the criterion of management efficiency in key indicators, on the other hand, to measure the degree of deviation of actual values from the operation of this criterion. Also, it should be noted that in order to manage value according to indicators one need to somehow organize them, placing priority, which would suit the majority of participants of corporate management. Heterogeneity and diversity of indicators complicates the problem in the framework of existing approaches. To resolve these problems we assign to the management of key indicators properties of the dynamic compatibility and dynamic hierarchy, which mean that multiple, at first glance, indicators can compare and contrast, if we consider their change in dynamics. The idea of ordering of the dynamics indicators of economic systems belongs to I. M. Syroezhin [97], it was later developed by his students [32, 72, 88, 122, 140]. He noticed that the disparate data in a static economy are comparable in dynamics.

We illustrate this idea with a simple example. Suppose, for example, there are three indicators disparate in static:

- 1. Duration of the turnaround of accounts receivable.
- 2. The average number of employees.
- 3. Gross profit of a corporation.

It is difficult to compare these values, if we consider them static. Indeed, how we can compare the indicator, measured in days, with the indicator, expressed in monetary units or the number of people. But in dynamics there is some natural order. Specifically, the duration of the turnaround of receivables should be reduced, which characterizes the effective management of current assets. It is also natural to assume that the gross profit is growing faster than the number of workers and thus productivity increases.

As a result, we have:

 $h_1 > h_2 > h_3$ 

where  $h_1$  – growth rate of gross profit

h<sub>2</sub> - growth rate of staff;

h<sub>3</sub> – growth rate of turnover duration of receivables.

Compliance of this order demonstrates the effectiveness of management. Its violation indicates the presence of problems. So the change of order in neighboring indicators of inequality indicates some shortcomings in the existing activities of managers and, as a consequence, failure of results suiting investors. This is evidence of violations in the economic turnover of a company, which certainly affect the total welfare of the owners. The reverse order is a sign of serious problems in the

firm, which has a negative effect on the change in market value. In this case, the hired managers run the company not by the growth of the market value, which requires significant intervention by the business owners.

Thus, disparate in static indicators are comparable in dynamics. Moreover, in dynamics tempo characteristics of the organization have some natural order, and they can be ranked and subdominant relative to each other. Orders of growth need not to be linear; they may also be partial and complete.

Thanks to the implementation of the principles of dynamic compatibility and dynamic hierarchy, it is possible to compare the results (indicators) of economic activities of the analyzed companies:

- a) with generally accepted norms and standards for assessing the effectiveness of corporate management;
- with similar data from previous years to examine trends of improvement or deterioration in the economic condition of the company;
- c) with similar data of other companies, which allows to identify its opportunities
- d) with different, non-uniform indicators of the analyzed company within the same time interval.

Thus, it can be argued that the development of the enterprise is adequately described by a dynamic model in which various special features should be in defined hierarchy.

It is possible to make the following conclusion: the basis of business value management is management of key indicators which should take into account acceptable "embellishment" of the financial statements, limited availability of information for decision-making, as well as important properties of the indicators - the dynamic hierarchy and dynamic comparability.

Fourth, concepts of business value and share price are different. This difference is due to the peculiarities of the organization of financial system. [10] In economic theory, there are two ways to distinguish the organization of the financial system: the Anglo-Saxon (US, UK) and Continental (Germany, Central Europe, Japan). Financial systems of Anglo-Saxon type are characterized by the highest level of the stock market, so the main way of attracting financial resources is the issue of shares, bonds and other securities. Developed equity markets react to any information (both positive and negative) on the activities of the organization, which is reflected in the quoted market prices of the securities. As part of the financial system in the first place investors expect rapid growth in share prices. Their interests are mainly short term in nature and not directly related to the return on investment projects. Therefore, the main criterion of the business efficiency is the increase of shares price for the benefit of shareholders.

The financial systems of the continental type have relatively low level of development of financial markets, especially the venture capital markets. The main funding sources here are the short-and long-term bank loans. Moreover, the degree of involvement in the management of banks, creditors, unions, etc. is very high. Moreover, in countries with this type of financial system, increase of the business value in the interests of shareholders is considered as anti-social policies [11] Therefore, for the continental model of business the increase in the market value of the company (business) as a whole, reflecting the interests of its owners, creditors, employees and the state is the main goal and criterion of efficiency assessment.

Despite the differences in goals of the business management in the above-mentioned financial systems, the essence is the same - to increase the well-being of all concerned. Hence, tools of the market value management should be focused both on the growth of the market value of the shares and the increase in market value of the business. Especially in the Russian context a big part of the business is not an active issuer of the securities, while remaining extremely interested in the growth of business value.

Fifth, the main driver of growth in the market value of a business is the creation of value for its owners, which is mainly the balance of interests between shareholders and managers.

As shown earlier, the market value of the company is formed according to its internal value. The internal value of the business of each investor is different and depends on the personal preference. At the same time they give different importance to different aspects of the enterprise. In order to make a significant change in the value of business, most investors should realize that the company creates value for its shareholders and their joint cooperation is economically feasible. The greater the numbers of potential and current investors are satisfied with the results of the company, the higher its market value. Taking into account the heterogeneity of investors' requirements it is quite difficult to provide them with the same positive outlook of the company. Unclear criteria for evaluation of the company from the market increase the uncertainty in the decision-making on enterprise value management. It is necessary to have tools which allow to harmonize disparate requirements of investors and to develop measures to improve the balance of interests, leading to an increase in market value. Let's create such tools.

# 2.2. Standard dynamics of key indicators is a fundamental criterion of market value growth

Management of the market value of the company is focused on its growth, rather than on its maximization. The increase in market value is due to the increase of inner value in the eyes of the most investors. The greater the number of potential business owners is aware of its ability to create value for its shareholders, the higher the market value of the business, and the value of its shares. Assessing this ability, market actors do it themselves, or they resort to third parties - analysts. No matter who makes the assessment, it is based on the analysis of performance. There are, of course, situations when the investor makes intuitive decisions, but this is usually the exception. Therefore, the business value management is carried

out through the management of key performance indicators.

The problem is that investors see different indicators as key. So for some value is the growth in sales, which, in their opinion, characterizes the competitiveness of products and the ability to generate strong cash flows. For other the size of the firm is important, expressed by the indicator of total assets. They believe the more assets the company has, the more expensive it is. Others pay attention to the amount of profit, which, in their view, is an indicator of performance and source of their current income in the form of dividends, etc. Hence, in order to control the value of the company it is necessary to negotiate diverse requirements of owners, to find a balance of interests, which is the key to high evaluation of the inner value and, as a result, the market value. For the mutual coordination of diverse interests expressed by various indicators, we use the principles of dynamic hierarchy and dynamic comparability.

The main indicators of the balance of interests will be the following indicators: revenue from sales (RS), the profit before tax (P), net earnings (NE), number of staff (N), total assets (TA) and paid dividends (D). These indicators, we recommend to investors to use in the analysis of the company. First, in the context of the limited information inner in corporate management, these indicators are the most accessible, due to the fact that they are required to be published in the media and in some economic publications, appear in the ratings of enterprises. Second, they reflect the most important financial performance to current and potential shareholders: economic growth and the size of the corporation - RS and TA, the return on invested capital - P and NE, resource efficiency and performance - N, the welfare of owners - D [14, 23]. Third, these indicators give to ordering in dynamics.

Consequently, on the basis of the indicators one can get quite informative analytical conclusions about the activities of managers in balancing of interests.

As it has been noted, corporations are dynamic, so it is

important to know the conditions that are sufficient to identify successfully developing systems. To determine such conditions we order the above indicators, and thus define the reference rate of development.

In [39] there is the "golden rule" of business economics:

$$1 < h(TA) < h(RS) < h(P), \tag{3}$$

where h – rates of indicators.

Inequalities have a clear interpretation. First left inequality means that the organization is in a state of growth, the scale of its operations are increasing. Accumulation of assets, as noted above, is one of the main target systems formulated by owners of the company and its management personnel. And it may also occur in the explicit and implicit forms. The second inequality shows that the resources of the firm in the form of assets are used more efficiently, that is, there is an acceleration of their turnover. This follows from the formula of the asset turnover:

$$AT = \frac{RS}{TA} \,, \tag{4}$$

where AT - the number of circuits of assets made by them for the specific period.

The increase in turnover is seen as a positive trend, therefore, the numerator must increase more rapidly, that is, h (RS) > h (TA), h - rates of indicators. Acceleration of the turnover frees up part of the cash from economic circulation, and under certain conditions to get more revenue.

Inequality h (RS) < h (P) means that the revenue increases in faster pace, which is caused by a relative decrease in fixed costs with an increase in sales.

We introduce into the inequality (3) the number of employees and the indicators of net earnings:

$$1 < h(N) < h(TA) < h(RS) < h(P) < h(NE)$$
 (5)

Inequality h (N) < h (TA) follows from the requirement of labor productivity growth, one way to calculate which is the ratio of TA to N. In fact, the more resources are handled by a certain number of employees, the higher the return on their labor, and as a consequence, greater revenue of organization. To increase the labor productivity, there is a need for more rapid growth of the numerator over the denominator. 1 < h (N) corresponds to the reluctance of managers to cut the staff, as it has been already mentioned above, thus matching their interests. In addition, the social responsibility of business obliges to this.

Inequality h (P) < h (NE) is also easily explained. Net earnings, in contrast to the pre-tax profits are fully allocated to shareholders. It is natural to assume that the company's shareholders will demand a more rapid growth in net earnings compared to a profit before tax. It is necessary to use methods of tax planning and tax optimization for reducing the tax burden.

The chain of inequalities (5) applies to companies whose activities are break-even, profit before tax and net earnings are greater than zero. Otherwise, the calculation of the rate of performance is not possible, because their calculation is only for positive values. However, there are corporations with negative profitability. What to do in this case? Indeed, the need for analysis of the activities of such firms on the availability of damages is not reduced and should not depend on.

To solve this problem, we introduce the concept quasipaces that do not differ from the traditional paces, but in their calculations negative values can be used:

$$h'(a) = \frac{a_2}{a_1} \tag{6}$$

where h'(a) – quasi-pace of a indicator

 $a_2$  - value of the indicator a in the current period;

 $a_1$  - value of the indicator ain the previous period.

Three cases are possible:

1.  $a_2 > 0$   $a_1 < 0$ . This situation is acceptable to the company, as during this period there has been a significant improvement. The company has managed to eliminate the negative value of the indicator. Therefore, to improve the situation, it is necessary to require that

$$h'(a) = \frac{a_2}{a_1} < 0$$
.

2. Assume that the company failed to eliminate unsatisfactory results of its previous activities, but the company has significantly reduced its losses. That is,  $a_1 < a_2 < 0$ . That situation indicates that the company is on the path to recovery, negative indicators have decreased, this may be regarded as a successful result of the activity. Hence, for quasi-pace the standard value in this case is  $h'(a) = \frac{a_2}{a_1} < 1$  because  $a_1 < a_2 < 0$ .

 If the value a in the previous reporting period was positive, that is, a1> 0, then in this situation it is necessary to require that in the next time interval indicator will grow: 0 < a1</li>

$$< a_2$$
. The pace respectively is as follows:  $h(a) = \frac{a_2}{a_1} > 1$ .

However, it may occur when  $a_2 < \theta$ . Quasi-pace here is

$$h'(a) = \frac{a_2}{a_1} < 0$$
 what is regarded as unacceptable fact for

the organization. Therefore, in case  $a_1 > 0$  you need to apply for quasi-pace the requirement h'(a) > 1.

Thus, the regulatory limit of value for quasi-pace h'(a) will be:

- 1. If in the previous period the value of the indicator was negative  $(a_1 < 0)$ , that h'(a) < 1.
- 2. Otherwise  $(a_1 > 0) h'(a) > 1$ .

Let's return to inequality (5). Among the indicators NE and P can be negative, that is, net earnings and profit before tax respectively. Other indicators are positive in terms of economic content. Therefore, in the case of losses in the previous period, inequality (5) becomes:

$$h'(NE) < h'(P) < 1 < h(N) < h(TA) < h(RS)$$
 (7)

The next step in constructing a gauge of corporate management is comparison and subordination of the discussed indicators with an indicator of dividend payment. Let us consider this question in detail.

Place of the indicator of dividend payment in inequality (5) depends on accepted at the company type of dividend policy. Dividend policy is an integral part of the general policy of formation of financial resources of the enterprise and it consists in optimization of the proportions between parts of profits capitalized and paid to shareholders.

There are following types of it [7]:

### 1. Residual dividend policy

It suggests that the fund of dividends payments is generated after the needs in its own financial resources are satisfied at the expense of profit. These resources ensure the full implementation of the investment opportunities of the enterprise.

#### Advantages:

- Ensuring the high rates of development of the company, increase of its financial stability.

#### Disadvantages:

- Instability of dividend payments;
- Unpredictability of the size of dividends in the coming period;
- There can be refusal to pay dividends in the period of high investment opportunities, which affects the level of the stock price.

This policy is used in the early stages of the life cycle of the company associated with a high level of its investment policy.

#### 2. Policy of stable size of dividend payments

It involves the payment of unchanged sum of dividends for a long period.

#### Advantages:

- Reliability, providing confidence to the shareholders in the same level of income, regardless of different circumstances;
- Stability of the stock price on the stock market.

#### Disadvantages:

- A weak link with the financial results of the company, in connection with which, in times of adverse conditions the size of reinvested profits will go to zero.
- 3. Policy of minimum stable size of dividends at a premium in some periods (or the policy of "extra dividend")

It involves the payment of a specified amount over a long period, and in the case of achieving good financial results an additional amount shall be paid.

#### Advantages:

- Stability, guaranteed payment of dividends;
- High connection with the financial results of the company, which increases the amount of dividends in periods of

favorable economic conditions, without compromising the level of investment activity.

Disadvantages:

- With long pay of the minimum dividend investment attractiveness of the company is reduced.

This policy is most effective in enterprises with unstable dynamics in the size of profit generation.

#### 4. Policy of dividends stable level

It provides the establishment of long-term regulatory payout ratio (Rp) relative to the amount of profit.

$$R_p = \frac{D}{NE} = const \tag{8}$$

D - amount of dividends on the company;

NE - the amount of net earnings.

Advantages:

- Ease of formation:
- A close link with the size of the formed profits.

Disadvantages:

Instability of the size of dividend payments, therefore, there
are possible fluctuations of shares market value at certain
periods, and such a policy is recommended to use in a mature
companies with stable earnings.

Such a policy is suitable for mature companies with stable earnings. If the profit margin varies considerably over time, this policy generates a high risk of bankruptcy.

### 5. Policy of continuous increase in the amount of dividends

It provides a stable increase in the level of dividend payments over time. The increase in dividends at the same happens in a firmly fixed percentage increase to their size in the previous period.

Let  $div_{\theta}$  - the amount of dividends in the initial period of time, and g - an annual growth rate of dividends, expressed as a fraction. Then the policy of constant increase of dividends will be as follows (Table 4):

Table 4
Amount of dividends paid in the implementation of the policy of their continuous increase

Periods	0	1	2	 n
Dividends sum	$\operatorname{div}_0$	$div_0$ (1 + g)	$div_0 (1 + g)^2$	 $div_0 (1 + g)^n$

#### Advantages:

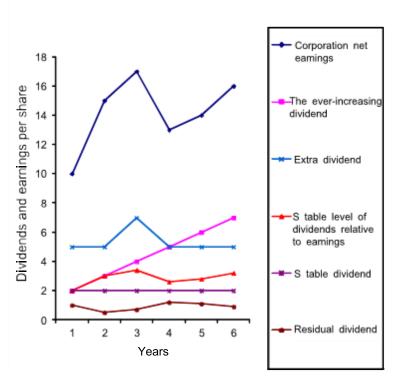
- Ensuring a high market value of the shares;
- The formation of a positive image among potential investors with additional emissions.

#### Disadvantages:

- The lack of flexibility in the implementation of those policies;
- A constant increase of financial stress, as a consequence, reduced investment activity and financial stability.

Therefore, really healthy companies can only afford such a policy, but if it is not supported by the constant growth of the company's profits, it is a sure path to bankruptcy.

For clarity, the different types of dividend policy of the corporation can be represented as a graph (Figure 4).



**Figure 4.** Dynamics of changes in the dividend per share for the different types of dividend policy.

The choice of a firm's dividend policy is determined by the owners of the company and depends on many conditions. Dividend policy is one of the cornerstones of the coordination of corporate interests of the shareholders, and in relations "owner -manager." This is due to the fact that refinancing is a rather substantial profit source for the development of the company. From this perspective, managers are interested in reducing the share of net earnings paid out as dividends. But on the other hand, the majority of shareholder judge the feasibility of investments according to the size of dividends, this way dividends have a direct impact on stock prices. Thus, one has to solve the problem of determining the compromise value of payout ratio  $R_{\rm p}$  (8).

In addition, shareholders may have different views to assess the impact of dividend to their income. There are two possible approaches.

The first approach assumes that dividends affect the value of the shares of the company. Its followers in determining the value of their shares rely on a formula of Gordon [114]:

$$P = \frac{D_0(1+g)}{i-g},\tag{9}$$

where P – current price of shares;

D<sub>0</sub> – the amount of any dividend paid in the initial period of time;

g - annual growth rate of dividends;

i - income required by investors-shareholders.

This shows that by changing the dividend, it is possible to affect both the value of the shares and the aggregate welfare of owners made of this value and the dividends received.

Proponents of the second approach rely on the theory of Modigliani and Miller [65], who proposed that dividends do not affect the share price. This idea is substantiated by the following considerations. If, for example, dividends paid were less than investors expected, they can sell some of their shares to obtain the desired amount of money. If dividends were large, the shareholders buy additional shares using these dividends. Thus, the shareholders can reduce any decision on dividends to the same results.

However, we building the tool of coordination and control of corporate interests will follow the first approach. First, the assumption of Modigliani and Miller is justified only as a theoretical scheme of a perfect market. Second, many shareholders, especially those with low income in the current period, will not agree with a delay of current income, that is, with reinvestment of profits, which could be paid in the form of dividends. This situation is very common, including Russia, even in corporations, where the owner and manager is one

person.

The selected type of dividend policy reflects a place that a volume of dividends paid in the regulation occupies (51). So if the policy of stable level of dividends relative to earnings is chosen, (5) would be:

$$1 < h(N) < h(TA) < h(RS) < h(P) < h(NE) = h(D)$$
 (10)

If stable dividend:

$$1 = h(D) < h(N) < h(TA) < h(RS) < h(P) < h(NE)$$
 (11)

etc.

However, these conditions are sufficiently stringent and vary widely from firm to firm. To our tools we have advanced a demand of generality that is applicability to a wide range of objects of the corporate form of management. This has been made, first, to carry out inter-company comparisons; for these companies should be standardized in terms of their order in the regulatory inequalities. Second, not all shareholders-insiders, and all the more outsiders, have full information on the dividend policy of the firm. To assess the balance between corporate interests open financial statements should be enough for them. On the basis of the above mentioned, we will put forward a very nonrigid requirement for dividend payments, but it meets the interests of the majority of shareholders:  $h(D) \ge 1$ . That is, the amount of dividends paid, at least, should not be reduced in time. Shareholders seem to be confident in their current income, and managers do not have to be in tension about ensuring a high rate of dividend growth, which corresponds to a situation of balance of interests. Thus, in the final variant the ordering of corporate interests will appear in the form of a system of inequalities:

$$\begin{cases} 1 < h(N) < h(TA) < h(RS) < h(P) < h(NE) \\ 1 \le h(D) \end{cases}, \tag{12}$$

where h(a) — growth rate of indicator a; N — the number of employees; TA — total assets; RS — sales return; P — profit before tax; NE — profit after interest and taxes payment; D — amount of dividends paid.

This system can be written in the form of a graph (Figure 5).



Figure 5. Graph of ordering of indicators of corporate interests balance.

The direction of each arrow describes the relationship between the statutory rates of indicators. So  $NE \rightarrow P$  means: h(NE) > h(P).

Built tools of market value management satisfy all the requirements imposed by us.

1. It is aimed not at maximization of market value but at its growth. Moreover, this growth cannot be achieved only with activities which have a short-term effect. The achievement of standard dynamics is the result of the set of activities that lead both to an increase in productivity and an increase in business activity, and an increase in profitability, etc. Reconciliation of various indicators contributes to this. For example, following the requirements to ensure the profit growth faster than gain, it will not be possible to achieve sales growth with unnecessarily high costs for marketing. Otherwise, gain growth will outpace profit growth, which does not correspond to the "golden rule"

- of business economics." The same can be said about the increase in staff numbers. Yes, it can be increased, but at the same time, managers need to achieve high productivity, that is, new employees should provide greater gain growth. There are other examples. Therefore the growth of the market value on the basis of balancing the interests (12) has both short and long term character.
- 2. The balancing of interests (achieving order (12)) in the deteriorating economic situation warrants, even in times of crisis, increased attention to the company by investors. In the decline stage market actors cut their investment programs, reduce their costs, which has a negative effect on the volume of sales in the economy. This is the objective conditions, and there is nothing to be done - a standard dynamics (12) is violated. However, if, at the same time, gain decline is accompanied by decrease in cost and number, which in turn leads to a drop in profits at a slower rate than gain and number, the violation of the "golden rule of business economics" will be relatively small. Even in the economic crisis it is possible to achieve the standard dynamics. It would show the preservation of the financial potential of the company and the ability to fairly rapid regrowth. Therefore, the revival of investment activity in the financial markets begins with such firms. The shares of companies with a high balance of interests are the highest demand in the post-crisis period and at the beginning of an economic recovery.
- 3. In the case of ordering of key indicators the possibility of manipulation of financial statements is eliminated. Modern accounting systems within certain limits allow variability in the formation of the key performance indicators: income, expenses, profits, etc. This, in turn, allows the company financiers to show the market "sugarcoated" financial statements, thereby concealing the true state of affairs. Naturally, the market reacts to such "sugarcoated" information with growth in market value as investors, in this case, will make decisions based on biased

information. Of course, this process cannot continue infinitely. Sooner or later, the problems become apparent, and it will be impossible to hide them. But in the short term, the use of such tools is a common option to increase the market value, not only in Russia. Application of international accounting standards does not change the situation.

Compliance of the standard dynamics of indicators cannot be achieved with simple manipulation of financial statements. Requirement of mutual links between indicators limits the opportunity. Indeed, it is one thing to present in a positive light the growth of several indicators, and it is quite another - to provide a standard dynamics of growth (12). Let us assume that to achieve compliance of the ordering (12) only with the manipulation of the financial statements is not possible. "Conjuring" with one indicator, one must consider its relationship with the other, which reduces the ability to maneuver. The task of "optimization" of reporting becomes hopeless.

- 4. The indicators used in the management of the market value on the basis of the standard dynamics (12) are in the public domain - the official financial statements. With limited information, this fact enables the assessment of the balance of interests and determines the direction of the market value by any subject of the market as its own shareholders and outside investors.
- Rule (12) is based on the dynamic hierarchy and dynamic comparability of indicators. This allows you to assess the performance of the enterprise as a result of a combination of factors and obtain a unique interpretation of results.
- 6. Standard dynamics (12) corresponds to the increase in the value of shares, and increase of business value. This ratio should be observed for any enterprise, regardless of uptake in the stock market. This is particularly important for the Russian economy, where only a small part of companies quotes their shares on the stock exchange or their shares are low liquid financial instrument using which it is difficult

to judge their fair market value.

 Expression (12) is a reflection of the existing balance of interests in the company and, therefore, it is a characteristic of the extent to which the company is able to create value for its shareholders.

## Assessment of interests' balance of corporate management parties

As noted above, regardless of the state of the economy and the economic situation in order to increase the market value it is necessary to seek the compliance of the standard dynamics of indicators(1). It is clear that the actual dynamics of indicators not always coincides with the normative. How to quantify the degree of coincidence? Moreover, the extent of achievement of standard dynamics should be expressed in a single roundup indicator. That assessment is easily interpreted, allows you to compress a lot of information on the results achieved and allows making comparative analysis with other companies, and between units of one company. For the construction of the composite indicator we resort to the help of the theory of matrices.

We write again the standard dynamics (12).

$$\begin{cases} 1 < Rate(N) < Rate(TA) < Rate(RS) < Rate(P) < Rate(NE) \\ 1 \le Rate(D) \end{cases}, (12)$$

where Rate(a) – the growth rate of the indicator a;

N – number of employees;

*TA* – total assets;

RS - revenue from sales of products

P – profit before tax;

NE - profit after interest and tax payment;

D – amount of dividends paid.

We define this ordering in the matrix (tabular) form by the following rule:

$$M[SI] = \{ \mu_{ij} \},$$

$$\mu_{ij} = \begin{cases} 1, & \text{if } Rate^{S}(i) > Rate^{S}(j) \text{ and } for i = j, \\ -1, & \text{if } Rate^{S}(i) < Rate^{S}(j), \\ 0, & \text{if } ordering \text{ } between \text{ } Rate^{S}(i) \text{ } and \text{ } Rate^{S}(j) \\ & \text{isn't } set, \end{cases}$$

$$(13)$$

where  $\mu_{ij}$  - element of the standard order matrix;

i, j – numbers of indicators, i – number of line, j – number of column;

 $Rate^{S}(i)$ ,  $Rate^{S}(j)$  – standard growth rates of indicators. In our case, correlation (12) in matrix form is a table 5.

Table 5

Matrix of standard dynamics of key indicators of the company's activity

M [SI]

[0.1]							
	Calibre	N	TA	RS	ВР	NE	D
Caliber	1	-1	-1	-1	-1	-1	-1
N	1	1	-1	-1	-1	-1	0
TA	1	1	1	-1	-1	-1	0
RS	1	1	1	1	-1	-1	0
BP	1	1	1	1	1	-1	0
NE	1	1	1	1	1	1	0
D	1	0	0	0	0	0	1

Calibre is a unit. Consider figure RS (sales revenue). In the standard order revenue growth rate must be higher than the growth rate of total assets (TA) and less than the growth rate of net earnings (NE). That is,

$$Rate^{S}(RS) > 1;$$
  
 $Rate^{S}(RS) > Rate^{S}(TA);$   
 $Rate^{S}(RS) < Rate^{S}(NE).$ 

Consequently, according to (13) at the intersection of the line "RS" and column "Calibre" there is 1, at intersection of the "RS" and column "TA" - 1, at the intersection of the line "RS" and column "NE" - 1. The relationship between RS and D is not established, it is only known that the rate of growth of both indicators should be greater than 1, then, at the intersection of the line and column of these indicators there is 0. Diagonally (i = j) (shaded cells) there are ones. Similarly, the remaining cells of the table are filled.

Further we assume that the actual dynamics of indicators differs from the recommended (standard), which is a very common situation. Moreover, we take the real performance indicators of JSC "Gazprom" for the period 2006-2007, (Table 6). The data are calculated according to the official financial statements presented on the website of "Gazprom".

Table 6.
Rates of the performance indicators of "Gazprom" for the period 2006-2007

Coefficients	Symbol	Rates	Preferable rates
Number	N	0,995	>1
Total assets	TA	1,147	>1
Sales revenue	RS	1,087	>1
Balance profit	BP	1,051	>1
Net earnings	NE	1,049	>1
Dividends	D	1,693	>1

To check the results at the appropriate standard ordering (12) we represent the data in a matrix similar to the matrix (13).

$$M[AI] = \{ \eta_{ij} \}, \tag{14}$$

$$\eta_{ij} = \begin{cases} 1, & \text{if } Rate^{A}(i) > Rate^{A}(j) \text{ and } for i = j, \\ -1, & \text{if } Rate^{A}(i) < Rate^{A}(j), \\ 0, & \text{if } ordering \text{ } between \text{ } Rate^{S}(i) \text{ } and \text{ } Rate^{A}(j) \\ & \text{isn't } set, \end{cases}$$

where  $\eta_{ij}$  - element of the matrix of the actual ordering;

i, j - number of indicators, i - the line number, j the column number;

 $Rate^{A}(i)$ ,  $Rate^{A}(j)$  - the actual rates of change of indicators i, j

 $Rate^{S}(i)$ ,  $Rate^{S}(j)$  — standard rates of change of indicators I, j.

The following matrix (Table 7) corresponds to Table 6.

Table 7 The matrix of the actual dynamics of the key indicators of the company M [Al]

	Calibre	N	TA	RS	ВР	NE	D
Caliber	1	1	-1	-1	-1	-1	-1
N	-1	1	-1	-1	-1	-1	0
TA	1	1	1	1	1	1	0
RS	1	1	-1	1	1	1	0
BP	1	1	-1	-1	1	1	0
NE	1	1	-1	-1	-1	1	0
D	1	0	0	0	0	0	1

Here we consider the line "RS" for the same parameters as in the case with the standard order.

$$Rate^{A}(RS) > 1;$$
  
 $Rate^{A}(RS) < Rate^{A}(TA);$   
 $Rate^{A}(RS) > Rate^{A}(NE).$ 

We see that the three ratios shown, the actual order coincides with the recommended only in one of them: the growth rate of revenue must be greater than one. In the other two standard order is broken: the growth rate of revenue is less than the growth of the total assets, but more than the growth rate of net earnings, then it should be the opposite (see (12)). This is reflected in Table 7.

At the intersection of line "RS" and column "Calibre" is one, at the intersection of the line "RS" and column "TA" - 1, at the intersection of the line "RS" and column "NE" - 1. Just as in the normative order, at the intersection of the line "RS" and column "D" is 0. Diagonally (i = j) (shaded cells) there are ones. Similarly the remaining cells of the table are filled.

As it can be seen, there are other indicators, for which the values in the table of actual results do not match with the standard matrix. To detect them let's subtract from each element of the matrix of standard ordering M [SI] the corresponding element of the actual results of M [AI]. So from the value at the intersection of the line "RS" and column "NE" of table M [SI] we subtract the value at intersection of the "RS" and column "NE" of table M [AI]. Similar actions are carried out for the other cells of tables. In addition, for further calculations we do not take the very difference between the values of the standard and the actual matrices, but its module.

For pairs of elements, the actual order of the growth rate of which corresponds to the recommended standard, the difference will be zero, since at the intersection of lines and columns of these elements there will be equal values: either "1" or "-1". The difference will be observed for the pairs of elements for which the actual order of the rate does not match the standard. Here, the module of difference is 2. Let's present the results in the form of M [I].

$$M[I] = \{ v_{ij} \}, \tag{15}$$

where  $\mathbf{v}_{ij} = |\mathbf{\mu}_{ij} - \mathbf{\eta}_{ij}|$ , i, j – numbers of indicators, i – the line number, j – the column number.

M[I] in our case (the indicators of JSC "Gazprom" for 2006-2007) will be as follows. (Table 8).

Table 8

The difference of matrices of the standard and the actual ordering of the company indicators

	Calibre	N	TA	RS	BP	NE	D
Calibre	0	2	0	0	0	0	0
N	2	0	0	0	0	0	0
TA	0	0	0	2	2	2	0
RS	0	0	2	0	2	2	0
BP	0	0	2	2	0	2	0
NE	0	0	2	2	2	0	0
D	0	0	0	0	0	0	0

In those cells, where there is 2, there is a violation of the standard order of growth rate of indicators. The growth rate of the number of personnel is less than one, an increase in net earnings is slower that sales revenue and profit growth in the balance, assets grow faster than revenues, etc. - All of these are violations of the recommended dynamics of indicators. In general we see 7 inconsistencies (inversion) of the 16 possible pairs of indicators, standard order for 5 pairs is not established. The amount of twos is the distance between the matrices. In this case, this is the distance between the matrices of standard and actual ordering of balance interest indicators. The mathematical formula for the calculation would be:

$$d = \sum_{i=1}^{n} \sum_{j=1}^{n} |\mu_{ij} - \eta_{ij}|. \tag{16}$$

Here d is the distance between the matrices of ordering;

 $\mu_{ij}$  – element at the intersection of the *i* line and the *j* column M [SI].

 $\eta_{ij}$  – element at the intersection of the *i* line and the *j* column M [AI].

In our example, the distance between the matrices of the standard and the actual ordering of the key indicators of the formation of the market value of the company (the sum of "twos") is 28.

Thus, we have expressed the degree of deviation of the actual dynamics from the standard with one indicator. However uncomfortable dimension, or rather dimensionless of the derived distance will deter its practical application. In fact, the resulting distance of 28 units - is it good or bad? What does this mean? How to interpret this information? So imagine the value obtained in the traditional dimension, such as a percentage.

We normalize the distance obtained by the formula:

$$R = \frac{d}{2 \cdot N},\tag{17}$$

where N - the number of non-zero cells in M [SI], not including cells of the main diagonal.

R - normalized value:  $0 \le R \le 1$ .

Thus, we have set the limits of variation of the single summary indicator. Now the difference measure of the matrices of the standard and the actual order is more obvious. In this case, N = 32 and R = 0,438. This means that the actual balance of interests is different from the standard in 43.8%.

However, the concept of distinction measure is not always advisable to operate. It is much more likely to use the similarity measure, as it characterizes the degree of approximation to the desired mode of operation. Exactly this way the problem is set: to bring the development of the enterprise closer to the standard variant, and not to reduce the lag from it. Therefore, in order to assess progress in balancing of the interests we will use the similarity measure of the standard and the actual dynamics of the indicators.

$$S = (1 - R) \cdot 100\%, \tag{18}$$

where S - similarity measure of the standard and the actual dynamics of the indicators.

In this case, S = 56.2%, that is, the actual direction of development coincides with the recommended in 56.2%. At best, the match would have been 100%, and at worst - zero. Thus, efforts to achieve a balance of interests in a considered enterprise can be characterized as "above average."

This allows to say that a single indicator is defined, yielding the final assessment of the efforts of management in action to increase business value. In the case of non-standard dynamics (1) the management of the company should make an effort to correct the situation and to get closer to a balance of interests. To do this, they must determine which areas of activity in regulating the balance of interests, and, therefore, the management of value, are the most problematic and require urgent efforts. It is necessary to further diagnose the situation. How this is done on the basis of the proposed instrument we will describe in the next chapter.

Due to the variation limits of the indicator - from 0% to 100%, and its values are in general dimension, the data is easy to interpret. However, one must define the difference between such a variety of results, and determine what type of a balance of interests a given enterprise belongs to. Therefore, for further analysis of indicators it is appropriate to classify them according to certain criteria.

As a possible scale of classification, we propose the following:

<ul> <li>from 0 to 20%</li> <li>no level of balance of interests, the managers do not want to respect the interests of shareholders and are not focused on the growth of the market value;</li> <li>low balance of corporate interests, but there are limitations in the activities of managers, forcing them in some indicators to show good results, the growth of the market value of the business is not their main purpose;</li> <li>level of balance of interest is below the average, to ensure high social status managers achieve high results of individual indicators to their special interests, thus in some cases there is a positive effect on business value;</li> <li>average level of balance of interest, on the owners part there is a partial internal corporate control, which helps to maintain the interests of not only managers, but also of some key owners for whom the growth of the business value is desirable, but not the main goal;</li> <li>the balance of interests is above average, the level of balance of corporate interests is reached, allowing the company to operate without major conflicts, there are prerequisites for the successful strategic development and, consequently, the potential growth of the value;</li> <li>a high level of balance of interests, management activities for potential investors is a signal of an effort to comply with their financial interests, regardless of the amount of their contribution to the company, which, in their opinion, increases the inner value of the company;</li> <li>very high level of balance of interests, the interests of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly curbing the growth of the market value;</li> </ul>		
limitations in the activities of managers, forcing them in some indicators to show good results, the growth of the market value of the business is not their main purpose;  from 30%  • level of balance of interest is below the average, to ensure high social status managers achieve high results of individual indicators to their special interests, thus in some cases there is a positive effect on business value;  from 40%  • average level of balance of interest, on the owners part there is a partial internal corporate control, which helps to maintain the interests of not only managers, but also of some key owners for whom the growth of the business value is desirable, but not the main goal;  from 50%  • the balance of interests is above average, the level of balance of corporate interests is reached, allowing the company to operate without major conflicts, there are prerequisites for the successful strategic development and, consequently, the potential growth of the value;  from 60%  • a high level of balance of interests, management activities for potential investors is a signal of an effort to comply with their financial interests, regardless of the amount of their contribution to the company, which, in their opinion, increases the inner value of the company;  • very high level of balance of interests, the interests of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly		want to respect the interests of shareholders and are
ensure high social status managers achieve high results of individual indicators to their special interests, thus in some cases there is a positive effect on business value;  from 40%  to 50%  • average level of balance of interest, on the owners part there is a partial internal corporate control, which helps to maintain the interests of not only managers, but also of some key owners for whom the growth of the business value is desirable, but not the main goal;  from 50%  • the balance of interests is above average, the level of balance of corporate interests is reached, allowing the company to operate without major conflicts, there are prerequisites for the successful strategic development and, consequently, the potential growth of the value;  from 60%  • a high level of balance of interests, management activities for potential investors is a signal of an effort to comply with their financial interests, regardless of the amount of their contribution to the company, which, in their opinion, increases the inner value of the company;  from 70%  • very high level of balance of interests, the interests of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly		limitations in the activities of managers, forcing them in some indicators to show good results, the growth of the market value of the business is not their main
there is a partial internal corporate control, which helps to maintain the interests of not only managers, but also of some key owners for whom the growth of the business value is desirable, but not the main goal;  to 60%  to 70%  to 70%  to 70%  to 70%  to 70%  to 80%  to 80%  to 80%  there is a partial interests of not only managers, but also of the majority of participants of corporate control, which helps to managers prevail, partly participants of corporate relations, but in some areas of activity the interests of managers prevail, partly		ensure high social status managers achieve high results of individual indicators to their special interests, thus in some cases there is a positive effect on
of balance of corporate interests is reached, allowing the company to operate without major conflicts, there are prerequisites for the successful strategic development and, consequently, the potential growth of the value;  from 60% to 70%  • a high level of balance of interests, management activities for potential investors is a signal of an effort to comply with their financial interests, regardless of the amount of their contribution to the company, which, in their opinion, increases the inner value of the company;  from 70% to 80%  • very high level of balance of interests, the interests of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly		there is a partial internal corporate control, which helps to maintain the interests of not only managers, but also of some key owners for whom the growth of the
activities for potential investors is a signal of an effort to comply with their financial interests, regardless of the amount of their contribution to the company, which, in their opinion, increases the inner value of the company;  from 70% to 80%  • very high level of balance of interests, the interests of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly		of balance of corporate interests is reached, allowing the company to operate without major conflicts, there are prerequisites for the successful strategic develop- ment and, consequently, the potential growth of the
of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly		activities for potential investors is a signal of an effort to comply with their financial interests, regardless of the amount of their contribution to the company, which, in their opinion, increases the inner value of the
		of managers coincide with the interests of the majority of participants of corporate relations, but in some areas of activity the interests of managers prevail, partly

from 80% to 90%

· very high level of balance of interests, moral and material satisfaction of managers depends on achieving a balance of interests, strong shareholders have not only organized an effective internal corporate control, but have been able to hire management meeting their interests, it entails a substantial increase in value of the business;

to 100%

· the highest degree of balance of corporate interests, all the participants of corporate relations are satisfied with the results, managers - professionals of the highest level, managed to connect their interests with those of others; enterprise development in the near future is not in danger because of the high capacity to meet the expectations of interest, the maximum possible increase in the market value.

Such grading follows from the logic of constructing gauge, is a natural extension of the criterion, although it may allow some refinement based on the needs, habits and preferences of a particular investor. However, in the most general case, we will use exactly this scale, as it is sufficiently differentiated, characterizes a wide range of results of the company, has equal intervals, easy to interpret, represents data in a compact visible form.

## 2.4. Influence of the interests' balance on market value of the company

To confirm our hypothesis about the dependence of the market value on a balance of interests we will hold its empirical test. To do this, we examine the balance of interests of several major Russian companies. To fully understand the market value, we take the companies which shares are actively traded on the stock exchange. Although, as we have noted, this is not a must, however, it ensures the objectivity of information and "clean" the market value of non-formalized factors mentioned earlier (Table 9).

Table 9
Quantitative value of the balance of interests and increase of the market value of the largest Russian companies for the period 2002-2007

No	COMPANIES	Indicator	2002	2003	2004	2005	2006	2007	СС
1100	Avtovaz	BI,%		68.75				81,25	
1	AVIOVAZ	IC, %	10,10	15.6	0.4			163.1	0,344
	KAMAZ	BI,%	70.59	31,25	,	,			0.691
2	NAMAZ	IC, %	. 0,00	1,5		95,6			0,031
	Uralkali	BI,%	81.25						-0,125
3	Oranan	IC, %	.,			239,9			0,120
	Metafrax	BI.%	43,75	87.5				75	0,268
4	Wictorian	IC, %			36.4		21,3		0,200
	Akron		37,5	31,25	93,75				0,526
5	7 414 511	IC, %				33,9			0,020
	Aeroflot	BI,%	93,75	93,75	93,75	50	93,75	12,5	0,192
6		IC, %		100,0	78,6		52,4		-,
	Baltika	BI,%	62,5	56,25	50	93,75	43,75	37,5	0.368
7		IC, %		-2,1	17,0	87,9	73,6	8,1	-,
	Wimm	BI,%	50	31,25	62,5	25	88,89	75	-0,356
8	Bill Dann	IC, %				67,9			
	GAZPROM	BI,%	93,75	75	81,25	62,5	93,75	56,25	-0,265
9		IC, %		59,5	96,1	150,6	55,4	14,0	
40	Tatneft	BI,%	43,75	87,5	87,5	87,5	50	81,25	0,313
10		IC, %		42,9	13,6	162,9	39,4	31,0	
	Lukoil	BI,%	87,5	50	93,75	50	43,75	62,5	0,823
11		IC, %		38,9	21,7	106,8	33,7	-8,0	
40	Maddala Mistari	BI,%	12,5	93,75	87,5	81,25	93,75	68,75	-0,930
12	Norilsk Nickel	IC, %		209,5	-17,2	60,7	39,5	61,9	
13	Surgutneftegaz	BI,%	37,5	43,75	93,75	87,5	31,25	25	0,248
13	Surgumentegaz	IC, %		57,8	36,3	29,4	33,2	-24,9	
14	MTS	BI,%	56,25	37,5	62,5	31,25	100	81,25	0,338
		IC, %			68,1		39,9		
15	Rostelecom	BI,%	87,5	93,75	50	87,5	31,25	87,5	0,241
10		IC, %		59,5	-13,9	28,3	184,8	35,2	

No.	COMPANIES	Indicator	2002	2003	2004	2005	2006	2007	cc
16	Corners Not	BI,%	81,25	68,75	93,75	31,25	87,5	68,75	0,328
16	Gazprom Neft	IC, %		50,1	5,3	23,4	23,0	39,5	
17	Magnitogorsk Iron	BI,%	37,5	87,5	87,5	37,5	93,75	68,75	0,807
17	and Steel Works	IC, %		11,1	63,8	66,2	1,7	178,2	
18	40	BI,%	93,75	75	93,75	18,75	81,25	37,5	0,143
10	Novolipetsk Steel	IC, %		н/д	10,6	66,6	47,8	57,7	
10	l leelee e e e é é é e e e	BI,%	81,25	87,5	56,25	62,5	50	93,75	0,408
19	Uralsvyazinform	IC, %		153,7	-4,1	9,6	58,6	-9,7	
20	GAZ	BI,%	93,75	43,75	81,25	75	75	87,5	0.403
20	GAZ	IC, %		69,5	-13,7	420,5	51,4	70,4	0,403
The average Pearson correlation coefficient								0,238	

In accordance with the principle of community enterprises of various business sectors are presented in Table 9: petroleum, chemical, automobile, metallurgy, telecommunications, food, transportation. For each company the value of balance of interests is calculated over the years (BI). For this purpose we have developed a computer program, placed in the public domain on the website "New technologies of financial analysis and corporate management" [93] BI is associated with an increase in the market value (capitalization) (IC), calculated on the basis of mandatory quarterly reporting issuers that are publicly available on the official websites of the enterprises in question.

Given that the balance of interests can be assessed only after the formal financial reporting, investors' reactions to its condition will follow in the next reporting period. Therefore, the relationship between the value of the business and the balance of interests, if any, should be assessed by comparing the balance of interests of the previous reporting period with an increase of capitalization in the next reporting period.

We estimate the expected relationship based on the Pearson correlation coefficient (column "CC" in Table 9) by formula 19:

$$r = \frac{\sum (x - \overline{x})(y - \overline{y})}{\sqrt{\sum (x - \overline{x})^2 \sum (y - \overline{y})^2}};$$
(19)

where r – Pearson's correlation coefficient;

x - value of the balance of interests in the previous period;

y - capitalization increase in the next period;

 $\bar{x}$  – average value of balance of interest for period 2002-2006:

 $\overline{y}$  – average increase of capitalization for the period 2003-2007.

For most enterprises there is an explicit link between balance of the interests and business market value. The correlation coefficient is positive and sufficiently far away from zero. Recall that the Pearson correlation coefficient ranges from -1 to 1. 1 indicates full correlation, -1 - reverse, 0 - no correlation. Only four of the twenty companies have negative correlation: "Gazprom", "Norilsk Nickel", "Wimm-Bill-Dann", "Uralkali". This may be because, at some points in time during the formation of the share price the non-fundamental factors dominated over the fundamental. For example, the struggle for control of the "Norilsk Nickel" between the major shareholders, within which there was purchase of shares in free float, sometimes regardless of the price, naturally caused a rise in their prices, in our view unjustified. Or, one time, there were restrictions on the ownership of the shares of "Gazprom" for non-residents, which in turn limited the liquidity and distorted the fair market value of the shares.

However, the average Pearson correlation coefficient equal to 0.238, shows the influence of compliance with the standard dynamics (12) on the market value of the business. I do not think we make a mistake by assuming that the same way this fact is reflected in the market value of companies which shares are not traded on an exchange. To evaluate the relationship of balance of interests and market value, cleansed of the influence of non-fundamental, speculative, short-term factors, and also to show the long-term nature of this relationship, we calculate the average value of balance of interest for the same companies for the period 2002-2007 and compare them with the growth of the market value over the same period (Table 10).

Table 10

Average values of the balance of interests and increase of the market value of the largest Russian companies for the period 2002-2007

		Average value	Increase of the
No.	COMPANIES	of the balance of	market value for
		interests, %	the period
1	Avtovaz	67,71	6,00
2	KAMAZ	74,27	11,68
3	Uralkali	84,79	40,92
4	Metafrax	70,83	2,06
5	Akron	70,83	16,60
6	Aeroflot	72,92	9,72
7	Baltika	57,29	3,04
8	Wimm Bill Dann	55,44	3,45
9	GAZPROM	77,08	12,89
10	Tatneft	72,92	6,79
11	Lukoil	64,58	3,30
12	Norilsk Nickel	72,92	8,30
13	Surgutneftegaz	53,13	1,79
14	MTS	61,46	9,50
15	Rostelecom	72,92	5,78
16	Gazprom Neft	71,88	2,35
17	Magnitogorsk Iron and Steel Works	68,75	7,56
18	Novolipetsk Steel	66,67	3,29
19	Uralsvyazinform	71,88	2,82
20	GAZ	76,04	18,64
Pear	son's correlation coeffic	ient	0,653

In gray background there are cells, corresponding to the maximum values of indicators in a table's columns. You may notice an interesting pattern: the maximum values of the balance of interests correspond to the maximum increase. Here "Gazprom" looks like one of the best. Its value for the reporting period increased by 13 times with an average balance of interests of 77.08%. This suggests that maintaining a high level of the balance of interests for a long period of time, the company has guaranteed attention from investors and it is provided with a significant increase in the cost of business in the long term. Although, as in the case of "Gazprom", in some periods there may be some discrepancy between the balance of interests and value growth.

"Uralkali" looks the same, where we can't observe the link between the balance of interests and market value, the Pearson's correlation coefficient is -0.125. However, maintaining the balance of interests at a high level for a long period of time (maximum of submitted) has demonstrated the corresponding maximum increase of shares value. The dependence (correlation) for a long time interval is much higher than for short periods of time. That is the market, albeit largely on an intuitive level, appreciates the success of management of companies in an effort to balance interests.

Neither short-term speculations, nor the economic crisis with an adequate balance of interests, do not undermine investors' faith in the bright future of the company. Even with the deterioration of the economic situation, in which a reduction in share prices is inevitable, it is an objective situation, that above all, companies with a high level of balance of interests will restore their value. In support of this let's look how our leaders looked like in terms of the balance of interests in the recovery of the stock market in October 2008 (the peak of the crisis in the stock market) - January 2011 (local maxima in the stock market) (Table 11).

Table 11
Growth in the value of shares in major Russian companies for the period October 2008 - January 2011

Company	Balance of interests,	The maximum price for the period, rub. / share	The maximum price for the period, rub. / share	Growth in the value, time
Uralkali	84,79	239,81	21,5	11,15
GAZPROM	77,08	204,7	84	2,44
KAMAZ	74,27	103,98	12,03	8,64
Tatneft	72,92	166,97	26,21	6,37
Aeroflot	72,92	87,5	19,56	4,47
Norilsk Nickel	72,92	7576	1180,11	6,42
Rostelecom	72,92	350,05	170,62	2,05
MICEX index (the market as a whole)		1788,74	509	3,51
RTS (market as a whole)		1922,15	492,59	3,90

"Uralkali", having the highest degree of balance of interests from the enterprises represented, is a leader in the recovery of market value at the same time. Price of its shares increased by 11 times during the period. Our other leaders in balance of the interests restored their position intensely as well. The value of "Kamaz" shares (3rd place in the balance) increased by 8.6 times, "Tatneft" (4th place) by 6.4 times, "Norilsk Nickel" (4th place) by 6.4 time. It is particularly noteworthy that the increase in the market value of the issuers mentioned significantly exceeded the growth of the market as a whole (see the line "MICEX" and "RTS"). On average, the market grew "only" by 2.4 times. However, a number of leaders in balance of the interests did not show impressive results. "Gazprom" increased "only" by 2.44 times, "Aeroflot" - by 4.47 times, "Rostelecom" - by 2.05 times. To justify them it can be seen, the growth rates of their shares generally followed

the growth of the market (indexes increased by 3.5 times), that is, they looked not worse than the market. Moreover, since stock indexes themselves showed modest recovery results in the presence of extra-growth and growth in the market of the most liquid securities, and also taking into account the method of calculation of the RTS index, provided on the site of the RTS, we can say that the vast majority of shares traded in the stock market showed a much smaller increase than our leaders. In addition, it is possible that relatively moderate growth of capitalization of "Gazprom", "Aeroflot" and "Rostelecom" is due to not fundamental, speculative factors, mentioned earlier. At least the stock market recovery is continuing, and, perhaps, it is too early to make any far-reaching conclusions. Later, after a sufficiently long period of time it will be possible to estimate recovery rate correlation of shares value and the balance of interests.

So we have established that the balance of interests is a significant factor in changes in market value. The higher the balance of interests is, the higher the market value of the business. This confirms our investigation of correlation of balance of interests and the market value of some of the most liquid shares. Purposefully adjusting the balance of interests, wage management can manage business value regardless of shares negotiability on the stock market.

In the case of non-standard dynamics of indicators the company's management should make an effort to correct the situation and get closer to a balance of interests. To do this, they need to determine what spheres of the analyzed relationships are the most problematic and require urgent efforts. They need to further diagnose the situation. How this is done on the basis of the proposed instrument we will describe in the next chapter.

According to the materials of the second chapter, there are the following conclusions.

1. Enterprise management should be aimed not at maximization of the market value, but at its growth over time,

- or at maintaining the capacity for such growth in the period of deterioration of economic conditions. The dynamics of the business value may not always be positive. But managers, in this case, must make an effort to preserve the potential of growth in the future. This is the essence of management of market value.
- 2. The basis of the market value management is the management according to key indicators shown in the financial statements of companies: sales, company profit, profit after tax, total assets, number of employees, paid dividends. The set of indicators may vary, but it is important that they have the properties of a dynamic hierarchy and dynamic comparability. This allows reconciling conflicting at first glance, requirements of different groups such as shareholders and managers. Further, the properties can deal with the "embellishment" of financial statements that are allowed by applicable law, but it misleads potential investors.
- 3. If the company's shares are actively traded on the stock market, the market value management is focused on growth in the value of shares of the company. If not, then - on the growth of business value. Following the principle of unity and universality of the management, in both cases the same management tool is used.
- 4. The growth of the market value is the balancing of interests. The more balanced the relationship of the involved in corporate management, the higher market value. This hypothesis in this study has received both theoretical and empirical support. We managed to establish a relationship (correlation) between the numerical value of the balance of interests and value of the most liquid shares of major Russian corporations.
- 5. Balance of the interests of shareholders and managers of the enterprise is expressed by standard dynamics of key performance indicators:

$$\begin{cases} 1 < Rate(N) < Rate(TA) < Rate(RS) < Rate(P) < Rate(NE) \\ 1 \le Rate(D) \end{cases}, (12)$$

where Rate(a) – the growth rate of the indicator a

N – number of employees;

*TA* – total assets;

*RS* – revenues from sales of products;

P – profit before tax;

NE - profit after interest and taxes;

D – amount of dividends paid.

Forming of standard (normative) order of indicators growth rates is carried out by the principles of dynamic comparability and dynamic hierarchy.

- 6. Presentation of the balance of interests in the form (12) allows us to quantify the degree of compliance. This is done by calculating the normalized distance between the matrices corresponding to the standard and the actual order of the rates. To facilitate the calculations we have developed a special computer program that we have placed in the public domain in the internet at www.freean.ru, so that anyone could make the necessary calculations.
- 7. Quantitative value of the balance of interests has a familiar dimension and ranges from 0 to 100%. This allows easy enough to interpret the results. So 100% means that the maximal possible balance of interests is reached, 0% the balance of interests is completely absent. Depending on the resulting numerical value companies can be attributed to a particular class of balance of interests. For this purpose, the appropriate classification is provided
- 8. Based on Pearson's correlation coefficient the relationship of quantitative values of balance of interests and market value is evaluated, which is generally observed, but at individual enterprises in certain periods of time it can be broken. This is due to the influence of the non-fundamental

factors on value such as speculative or other similar factors. However, the impact of speculative factors on the value of business has limited, short-term character and during long-term time intervals the effect of a balance of interests to the value is much more obvious. Leaders in average balance of interests are also the leaders in the growth of shares value.

9. The desire to observe the standard dynamics (12) during the economic crisis allows expecting a more rapid recovery of value, in the case of improving of macroeconomic situation, compared to similar companies. The paper presents the evidence of this thesis. Among the leaders of growth in the value of shares there are all the leaders in the balance of the interests that have tried to keep it at a high level, and in times of crisis.

### Chapter 3.

# DEVELOPMENT OF EFFECTIVE MEASURES FOR THE MANAGEMENT OF BUSINESS MARKET VALUE

- 3.1. Formation of corrective standard dynamics of indicators
- 3.2. Explanation of the measures choice for market value growth of an industrial enterprise
- 3.3. Basic trends of market value growth of Russian corporate sector

Chapter 3

## DEVELOPMENT OF EFFECTIVE MEASURES FOR THE MANAGEMENT OF BUSINESS MARKET VALUE

- 3.1. Formation of corrective standard dynamics of indicators
- Explanation of the measures choice for market value growth of an industrial enterprise
- 3.3. Basic trends of market value growth of Russian corporate sector

#### Formation of corrective standard dynamics of indicators

By adjusting the current balance of interests, the firm affects its market value. Approaching one hundred percent match with the standard dynamics of the indicators (12) management of the enterprise increases its value. There is no difference: if the company's shares are traded on the stock market or not. The company may not have a share and its charter capital may be formed by the units. However, the direct sale of such firms is possible, and in accordance with the concept of maximization of the welfare of business owners it is necessary to manage the market value. This means that the company's management should strive for complete balance of interests.

As previously noted, the balancing of interests is observed not at all companies (see table 9). Indeed, this is a complex management task that requires a systematic approach and considering the link between multiple indicators of the performance of the firm. In this case, it is not enough for management to concentrate on growth of individual outcome indicators, such as revenue and profit. There is need for interrelated growth relative to each other (e.g., profits should increase faster than revenue). These management efforts will be evaluated by the market.

For the standard balance of interests is a fairly rare, it is always possible to improve it, to try to achieve one hundred percent achievement. Balance of interests can and should be managed in order to increase business value, avoid shortage of investment resources, loss, total or partial, competitiveness and threaten the existence of the company in the long term. In order to improve the achieved balance of interests it is necessary to determine which areas of activity are the most problematic and require urgent efforts. There is a need to further diagnose the existing balance of interests.

We show how the identification of the most bottlenecks of balance interests happens. This will allow formalizing the planning process of priority actions in the field of management of the balance and, therefore, the market value.

To do this, go back to the ordering graph of balance indicators of corporate interests (Figure 6):



**Figure 6.** Graph of the standard ordering of the interest balance indicators

where N — number of employees; TA — total assets; RS — revenues from sales of products; P — profit before tax; NE — profit after interest and taxes; D — amount of dividends paid.

The direction of each arrow describes the relationship between the statutory rates of indicators. So  $NE \rightarrow P$  means:

Rate(NE) > Rate(P)

The graph contains two branches:

1. NE 
$$\rightarrow$$
 P  $\rightarrow$  RS  $\rightarrow$  TA  $\rightarrow$  N  $\rightarrow$  1

2. 
$$D \rightarrow 1$$

This order corresponds to the following relations of growth rates:

$$1. Rate(NE) > Rate(P) > Rate(RS) > Rate(TA) > Rate(N) > 1$$

$$2. Rate(D) \ge 1$$

Consider each branch separately. Let's start with the second.

We have mentioned above the reasons according to which reduction of dividends paid is undesirable in the context of the balance of interests. Requirement to pay dividends is a key factor in investment activities of market actors. For many shareholders current earnings are more important than longterm expectations. Based on the formula of Gordon (9) [114], it can be concluded about the direct influence of dividends on stock prices.

$$P = \frac{D_0(1+g)}{i-g},$$
 (9)

where P – present value of the shares;

 $D_0$  – the amount of any dividend paid in the initial period of time;

g - annual growth rate of dividends;

i – yield required by investors-shareholders.

This shows that by changing the dividends, thus it is possible to affect both the value of the shares and the aggregate welfare of owners emerging from growing value and the dividends received.

It can be concluded that the decrease in dividends over time leads to a decrease in the market price of the shares, and thereby to decrease in the total well-being of their owners, due to both current income and capitalization. Therefore, in the case of non-fulfillment of condition  $h(D) \ge I$ , indicator of dividend payment is given the highest degree of problematic, no matter what the actual order of indicators in the first branch of the graph of balance of interests. This means that the sum of dividend paid shall be subject to adjustment as a priority, and setting it to the required level which meets the interests of the majority of market actors.

Now consider how the weak places in the top (first) branch of the graph are revealed. For this we introduce notations.

$$NE = a,$$
  
 $P = b,$   
 $RS = c,$   
 $TA = d,$   
 $N = e.$ 

Then the order in Figure 1 is as follows:  $a \rightarrow b \rightarrow c$   $\rightarrow d \rightarrow e \rightarrow 1$ . This means that over time, that is, compared with the previous reference period, indicator a should grow faster than the other indicators. Growth of e must yield to the growth of the presented indicators, etc. If the actual order of the considered indicators coincides with the recommended, there are no variations in the balance of interests, and therefore there are no bottlenecks requiring priority elimination. It is enough to maintain the results at a given level. Therefore the degree of problematic of all indicators is the same

In case of violation of the standard order bottlenecks can be identified on the basis of the following reasoning.

Suppose in our example, the actual order of the indicators rates is as follows:

$$d \rightarrow a \rightarrow c \rightarrow b \rightarrow 1 \rightarrow e$$

We assign to each member of the standard order ranks in decreasing order (Table 12).

	•
Indicator	Normative rank
а	1
b	2
С	3
d	4
e	5
1	6

Table 12
The ranks of the rates of the indicators standard dynamics

The growth rate of the indicator a (profit after interest and tax - NE) should be the highest, it is assigned a rank of "1". Further, there is the indicator b (profit before tax - P). Its growth rate should be less than the growth rate of a (NE), but higher than the growth rate of the remaining indicators. It is assigned a rank of "2", etc. All indicators should grow, their rates of growth should be greater than one. Accordingly, the one is assigned to the highest rank (in descending order) - "6".

Similarly, the indicators are ranked in the actual order  $d \rightarrow a \rightarrow c \rightarrow b \rightarrow 1 \rightarrow e$  (Table 13).

Table 13 Indicators rate ranks of the actual order of the hypothetical example

Indicator	Actual rank of the indicator
a	2
b	4
С	3
d	1
е	6
1	5

Next, calculate the deviation of ranks by the rule

$$b_i = R_{iS} - R_{iA} \tag{20}$$

where  $b_i$  – deviation of ranks of normative and actual orders of i indicator;

 $R_{iS}$  – rank of *i* indicator in the standard order;

 $R_{iA}$  – rank of i indicator in the actual order;

In our example, we obtain the following values of the deviations (Table 14).

Table 14

Ranks deviation of the actual order rates of the hypothetical example from the standard example

Indicator	Ranks deviation, <i>b<sub>i</sub></i>
а	- 1
b	- 2
С	0
d	3
e	-1
1	

Indicators with the lowest deviation would be the most problematic. In this case, this is the indicator b,  $b_i$  of which is -2. It should be increased first. Indeed the rate of the indicator b must be greater than the rate of the indicators d and c, whereas the real situation in a way that it is the least of them. You can certainly argue that the situation can be corrected by reducing the indicator d, because its real value is much higher than planned. But the demand of growth over time is also made for the d indicator, so it makes no sense to reduce it. This rule implies ensuring quality growth of indicators, which makes it possible for the company to have success in that strategy in the future. Hence, the most problematic indicators will be those that have the least value of the rank deviation of the

actual order rates from the standard, that is, their real rate is considerably less from the recommended by the balance of interests.

Next, you need to combine the results of the analysis of the two branches of the graph of the indicators ordering of balance of interests.

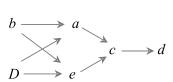
As noted, the reduction in the amount of dividends paid is a serious infringement of the interests of shareholders and, therefore, the balance of interests in this case can be no question. Therefore, if the dividends are reduced compared with the base period, then this indicator is assigned to the highest degree of problem, not taking into account the violation of the order in other indicators. If dividends, at least, do not decrease, then the indicator is not considered a problem, some efforts to correct it are not required. The degree of problematic indicator is the lowest.

Looking at the other branch of the graph, we identify the narrowest place in the balance of interests. If in this case the dividends paid has gone down or equal to zero, i.e. Rate(D) < 1, both of these indicators are given the highest degree of problem. Degree of problem is the rank of the indicator rate in ascending of values  $b_i$ . Imagine that in our example, at the same time the decrease of the amount of paid dividends D has happened. Then the degree of problem of indicators will be as follows (Table 15).

Table 15
Degree of problem of indicators that form the market value

Indicator	Ranks deviation, <i>b<sub>i</sub></i>	Degree of problem of the indicator
а	- 1	3
b	- 2	1
С	0	5
d	3	6
е	- 1	3
D	-	1

Since the rate of D is less than 1, and b has the least  $b_i$ , indicators D and b are assigned the highest degree of the problem - one, which means the need for priority attention precisely to these aspects of the business to achieve maximum balance of interests. Further we rank indicators in ascending deviations order of  $b_i$ . Indicators a and e are the third in problem, and their ranks and problematic degree are equal to 3, etc. For clarity, you can construct a graph of the urgency in correcting the balance of interest (Figure 7).



**Figure 7.** The graph of the urgency to rectify the balance of interests in the case of reducing the size of dividends paid.

At the beginning of the graph there are aspects of an enterprise management that require the greatest attention. As you move to the end of the graph the tension in indicators subsides, and they do not require any major changes in the activities associated with them.

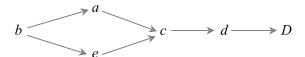
This algorithm allows you to identify what, in the first place, you need to focus in the management of the market value in order to ensure its growth.

Now assume that in our example the amount of dividend has not decreased, that is  $Rate(D) \ge 1$ . Then the problems with this indicator do not exist, and the degree of problem will be the least (Table 16).

Table 16
Problem degree of the indicators of the corporate interests balance in
the considered example

Indicator	Ranks deviation, <i>b<sub>i</sub></i>	Degree of problem of the indicator
а	- 1	2
b	- 2	1
С	0	4
d	3	5
е	- 1	2
D	-	6

The graph of urgency is:



The algorithm allows identifying what it is first necessary to focus on in the management of the market value in order to ensure its growth.

For example, analyzing the graph of the urgency to improve the balance of interests and, accordingly, the growth of the business, there should be a more rapid growth rate of the indicator b in relation to all the other indicators. At the same time it is necessary to ensure the condition of non-decrease of the indicator D (sum of dividends paid), that is, in each subsequent time period the amount of dividends paid per share shall be equal to the amount of dividends in the previous period, or be greater than the last. In our case, b - profit before tax, a - net earnings, e - number, c - sales revenue, d - total assets.

To improve the balance of interests and, therefore, for the greatest increase in the value of business in the first place, it is necessary to pay attention to the formation of profit before tax. This indicator is the most "narrow" place in the balance of interests in this example. This means increased costs do not provide a corresponding increase in revenue. Part of the cost is clearly excessive and should be reduced. It can be ineffective advertising costs or the cost of servicing the debt, or other overhead.

The least problematic is the indicator d - total assets, it is at the end of the urgency graph. This may mean that the rate of growth of assets was higher than the growth rate of the remaining indicators. Although the main purpose of increasing the firm's assets is likely growth of the main indicators of economic activity: profit, revenue, performance. If, however, the growth of the mentioned indicators was not enough, that is not consistent with the rule of the standard dynamics (), this indicates that additional investments in assets that caused the growth rate of TA, were ineffective and failed to adequately improve other key indicators. Measures should be taken to increase the return on capital advanced in the assets.

So with the construction of the urgency graph, or otherwise correcting standard dynamics, and certain actions to eliminate bottlenecks the balance of the interests is achieved expressed by the system of regulatory inequalities of the indicators (12). This, in turn, causes a maximum increase of the market value.

Thus, the proposed tool allows company management to focus on those activities, the implementation of which will significantly affect the change in the market value of the business. Importantly, the process of activities development in the field of value management is formalized, and not implemented on the intuition or expert level.

Let's analyze the balance of interests and propose measures to improve it by an example.

## 3.2. Explanation of the measures choice for market value growth of an industrial enterprise

Joint Stock Company "Reduktor" is the machine-building engineering holding that produces drive technology. The main activity of the holding is to produce gearboxes and gear motors of engineering application, oil field and construction equipment. The company's shares are not traded actively in the market, however, the owners of the company are certainly interested in increasing its market value. Using the tools developed let's define the main activities, the implementation of which will lead to increased business value.

In 2004-2008 JSC "Reducer" achieved the following performance indicators (Table 17).

Table 17
The business activity results of JSC "Reductor" for the period 2004-2008

No.	Indicator	Cian	Years						
NO.	Indicator	Sign	2004	2005	2006	2007	2008		
1	Revenue from product sales, million rub.	RS	370,0	447,4	692,0	840,0	628,6		
2	Profit before tax, million rub.	Р	1,5	3,6	1,0	4,2	2,6		
3	Profit after interest and taxes, million rub.	NE	1,1	2,7	0,02	2,5	1,3		
4	The value of assets, million rub.	TA	218,6	286,5	413,8	512,8	575,2		
5	The number of employees	Ν	559	615	623	635	186		
6	The amount of dividends paid, rub. / share	D	0,0	0,0	0,0	0,0	0,0		

For some indicators (RS and TA) a continuous growth

for the whole period is observed. Profit in general, except in 2006, also has a tendency to increase. The number of employees is increasing. Dividends by the decision of business owners were not paid, the profits were exclusively for the development, as evidenced by the growth of business assets.

At first glance, the results of business activity of "Reduktor" meet the needs of the most demanding investors. Shareholders should be happy and confident in the fact that the value of the business is growing, although the company's shares are not traded on the stock market. Let's see if the picture will change in the context of balancing the interests and standard dynamics of indicator (12).

Through the program of estimation of balance of interests we have developed and placed in the public domain on the website "New technology of financial analysis and corporate management" (www.freean.ru), we calculate the degree of compliance with the standard dynamics of indicators for "Reduktor" for the period 2005-2008. The results are presented in Table 18.

Table 18
Balance of interests (compliance with the standard dynamics of indicators) for JSC "Reduktor" for the period 2004-2008

		Ye	ars	A.u	Variation		
Indicator			2006- 2007		Average value	coefficient (stability), %	
Balance of interests, %	87,5	37,5	87,5	31,3	61,0	41,2	

As it can be seen, the analyzed situation is not so optimistic, as it might seem at first glance. Estimates range varies from 30% (in our classification: the level of balance of the interests is below the average, managers achieve high results of individual indicators to their special interests, which in some

cases benefits the value of the business) to 90% (very high balance of interests, the moral and financial satisfaction of management depends on achieving a balance of interests, strong shareholders have not only organized an effective internal corporate control, but have been able to hire in their interests management, which results in a significant increase in the value of business.)

Despite the visual appeal, ensured by a substantial increase in the individual indicators and the regular presence of profit used for the development in the activities of "Reduktor" there are significant deviations from the standard dynamics and balance of interests. Reasons for deviations and main problems we will identify a little later, but now, we note that the instability of results in achieving a balance of interests, according to our arguments, is not conducive to the desired increase in the market value of the company. It cannot suit the owners of the company, if they are rational economic actors and seek to maximize their benefits. Moreover, failure to comply with the standard dynamics indicates an inefficient use of resources of the enterprise, which should cause concern of the owners of the enterprise and its management.

It should be noted once again that the existing negative trends are not diagnosed by conventional methods, everything looks all right outwardly: the key indicators are growing, activity is profitable, the assets are being built up, sales are impressive. Therefore, the company's management deserves high marks, and if it had in possession the improved (proposed by us) tools, then it would probably have done everything possible to fix these problems.

Quantitative value for the balance of interests of "Reduktor" changes over time significantly (Table 18). The indicator for the four years is: in 2005 - 87.5%, in 2006 - 37.5%, in 2007 - 87.5%, in 2008 - 31.3%, that is from a very high level to below average in the next year, followed by a sharp rise to a high degree of balance of corporate interests and back its decrease to a low level. If we take into account

only the last time interval, the view of the management of the company will be negative. However, the analysis of this indicator in previous periods does not allow drawing a clear conclusion. Too many changes and rather high values in the recent past indicate unstable character of management in the enterprise. Therefore, the uncertainty associated with the balance of interests in the future, is quite large. Hence the risks of imbalance are significant and we have to correlate the two parameters of balance - the expected value and the uncertainty of the trend.

You can draw an analogy with the concept of trade-off between risk and return in financial management, according to which the most profitable financial instruments have the highest risk of non-getting required return. Therefore, investing money, the investor is ready for yield decline as long as the risk will not be acceptable for him, and vice versa. And the same is in the case of balancing the interests: a high expected value of a balance of interests can be accompanied by significant fluctuations in its dynamics, while its relatively low value its certain constancy. These points make the choice of investment targets based on respect for the interests of participants of corporate relations difficult for investors. Here the choice will depend on the preferences of a particular investor, that is, to choose what is more important: a high degree of balance of interests or stability. But unlike the trade-off between risk and return, where high returns may not be attached to a low-risk, the highest level of balance of interests may be stable over time, and hence the risk of changes may remain low.

In statistics, the expected value is calculated based on the arithmetic mean, which is also called the empirical expectation:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i \tag{21}$$

where  $\overline{x}$  - mean (expected) value of a balance of interests;  $x_i$  - value of a balance of interests in the time period i; n - the number of observed time periods, in which the balance of interests is analyzed.

Stability can be calculated on the basis of variation indicators such as standard deviation:

$$\sigma = \sqrt{\frac{1}{n} \sum_{i=1}^{n} (x_i - \overline{x})^2}$$
(22)

where  $\sigma$  – the standard deviation;

 $\overline{x}$  – mean (expected) value of a balance of interests;

 $x_i$  – value of a balance of interests in the time period i;

n – the number of observed time periods, in which the balance of interests is analyzed.

However, to eliminate the effect on indicators of the size parameters, scales of the analyzed objects (for example, the largest of all volume indicators among Russian companies "Gazprom", respectively, will have the largest absolute value of the amplitude of variation) it is recommended to use the relative indicators, in particular the coefficient of variation:

$$CV = \frac{\sigma}{x} \cdot 100\% \tag{23}$$

where CV – the coefficient of variation;

 $\sigma$  – the standard deviation;

 $\overline{x}$  – mean (expected) value of a balance of interests;

The lower the CV, the more stable the value of the analyzed parameters. In our case, rather high CV value (far right column of the Table 18), equal to 41.2% indicates instability of the achieved balance of interests, and therefore a high risk of its changing. Average, that is expected, value of a balance of interests (Table 18) is 61%, which (according

to the proposed classification) corresponds to a high level of balance of interests, in which management activities is a signal to potential investors about the desire to comply with their financial interests, which, in their opinion increases the inner value of the company. This conclusion can be taken as final, summarizing assessment of the company's management in managing the market value of the business.

Average balance of 61% and stability of 41% do not allow calculating the maximum possible increase in market value. Actions must be taken to improve the level of compliance with the standard dynamics and reduction of the stability indicator. In order to develop the required measures, we use the developed algorithm of correcting standard dynamics.

Comparing the ranks of the standard and the actual order of the indicators, we identify the most serious problems of the balance of interests and management of the market value for "Reduktor". For example, consider the period of 2007-2008.

At first, we calculate the rates of indicators growth, using the data in Table 17. As a result, we have (Table 19):

Table 19
The rates of performance indicators of "Reduktor" for the period 2007- 2008

No.	Indicators	Sign	Rates	Preferred rates
1	Revenue from sales	RS	0,748	>1
2	Profit before tax	Р	0,619	>1
3	Profit after interest and tax	NE	0,520	>1
4	Value of assets	TA	1,122	>1
5	The number of employees	N	0,293	>1
6	Amount of dividend payout	D	0,000	>1

The presented results are obtained by dividing the column "2008" of Table 6 by the indicators in the corresponding rows of the column "2007". For example, the growth rate of sales revenue (RS) is equal to the division of revenue in 2008 - 628.6 million rub. by the revenue in 2007 - 840 million rub., which is 0.748. Similarly the other indicators are found.

In the rightmost column of the table the recommended growth rates of the indicators relative unit are shown. Only the change in value of assets corresponds to normative. All other indicators decreased in comparison with the previous period. This means that the resources of the company in 2008 were used inefficiently. Let's make a further diagnosis. We compare the ranks of the standard and the actual order (table 20).

Table 20
Ranked rates of performance indicators of "Reduktor" for the period 2007-2008

No.	Indicators	Sign	Normative ranks	Actual rates	Actual ranks	Deviation of the ranks	Degree of problem
1	Revenue from sales	RS	3	0,748	3	0	5
2	Profit before tax	Р	2	0,619	4	-2	3
3	Profit after interest and tax	NE	1	0,520	5	-4	1
4	Value of assets	TA	4	1,122	1	3	6
5	The number of employees	N	5	0,293	6	-1	4
6	Calibre(unit)	1	6	1,000	2		
7	Amount of dividend payout	D		0,000			1

In the column "Normative ranks" the indicators are ordered according to the standard dynamics (12) in descending order of growth rates. According to (12), the indicator of the profit after interest and tax (NE) should have the highest growth rate, it is assigned a rank of "1". The indicator of profit before tax (P) is the next in the standard dynamics, it corresponds to the rank of "2", etc. As the calibre we take unit, which limits at the bottom the growth of all the indicators: they need to grow over time, their growth rate has to be greater than one. Consequently, the size is given the highest rank of "6".

Since the indicator of the amount of dividend paid (D) is considered as a separate inequality, it is not assigned a normative rank. Recall that, for D the following rule is applied: if it does not decrease with time and its value is not zero, it is not considered to be an indicator of problem, but if it is zero or it has been declining over time, the degree of its problem is the highest.

In the next column "Actual rates" there are the data from Table 18. According to this data in column "Actual ranks" the actual rates of indicators growth are ranked in descending order. So the indicator of total assets (TA) - 1.122 has the highest growth, it is given the rank of "1". The next in descending order is the size (unit), its rank - "2", etc. The lowest rate of growth in the number of employees (N), it corresponds to the rank of "6".

Further the deviation of actual ranks from normative is estimated according to the formula (20), actual ranks are subtracted from the normative ranks. For example, for sales revenue the normative rank is 3, the actual is 3, the difference is 0; for a profit before tax the normative rank is 2, the actual is 4, the difference is 2, etc.

The final step is to prioritize the identified problems in order to improve the situation. Improvement for JSC "Reduktor" means the growth of the balance of the interests from the reached 31.3% (Table 18) to a value close to 100%.

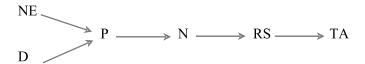
It is necessary to identify the most problematic areas in the management of the balance of interests (we mean the management of the market value), and then send the main efforts on positive change. We assign a priority according to the deviation of the actual ranks from the normative ranks.

First, as noted earlier, non-payment of dividends is a serious violation of the rights of shareholders to current income. Even despite the fact that this happened with the knowledge of the owners of the company, who agreed to send a company's profit on its development in its entirety. In the first chapter we have already shown the criticism of this approach on the part of one of the largest investors today Warren Buffett. [3] Recall, he believes that the reinvestment of the profit of the company is the same as to get into the pocket of the owners of the company. The managers, in this case, do not have any motivation to look for other ways to increase the capital of the company which involvement requires more effort than reinvesting profits. In addition, funding the activity through the company's equity reduces the efficiency of its use. [8] Indeed, if the problems are solved permanently at the expense of the owners, the managers lose incentive to identify more and more potential for growth of capital productivity. No matter how the situation developed, the help from the owners would arrive on time, and it would be a minimum of efforts.

Confirmation of this is faster growth of total assets of JSC "Reduktor" to the main resultant indicators - sales revenue and profits. Asset growth is an increase of the capital advanced in the enterprise activity that is invested in order to increase the return of it. Return on capital is expressed in the indicators of revenue and profits. Lack of revenue and profit growth adequate to asset growth indicates an inefficient use of capital of the firm, including the provision of the owners in the form of retained earnings. Therefore, non-payment of dividend is considered as a violation of the balance of interests, and one of the most serious problems of management of business value. The indicator of dividend payment, in this case, is given the

highest degree of problematic "1", as shown in table 19.

Second, for the remaining indicators (except D) the degree of problematic is determined according to the deviation of actual ranks from the normative ranks. The indicator of profit after interest and taxes (NE) has the smallest deviation -4. According to our algorithm, it is given, along with the indicator of the amount of dividends paid (D), the highest degree of the problem - "1." Deviation of ranks for profit before tax (P) is -2, it is given, considering that the most problematic indicators are NE and D, the degree of problematic "3", etc. As a result, we have a graph of the urgency in the management of the market value (Figure 8).



**Figure 8.** Graph of urgency in managing the business value for JSC "Reduktor" for 2008.

Indicators for priority adjustments are located at the beginning of the graph, the least problematic indicators are in the end. As it can be seen, for the growth of the market value of "Reduktor", first of all, it is necessary to pay attention to the formation of profit after interest and taxes and start paying dividends, which in subsequent periods, at least, should not be reduced.

For dividends payment it is enough only a decision of the shareholders, which must determine their amount and manner of payment. As regards the insufficient level of net earnings (profit after interest and taxes), it is due to more rapid growth of expenditure relative to income. Let's analyze changes in income and expenses of "Reduktor" in 2008 (Table 21).

The decrease in sales in 2008, basically due to the

deterioration of the economic situation and the financial crisis was accompanied by a corresponding decrease in the cost of production. However, we can see if the sales decreased by 25%, the costs associated with production decreased only by 23%. Consequently, there is need for a better control over production costs. Otherwise, the potential for profit generation, the main criterion of the effectiveness, will decline. This, of course, cannot suit shareholders.

Table 21
Revenues and expenses of "Reduktor" for the period 2007-2008

Na	Indicator	Ciam	Ye	ars	Growth
No.	Indicator	Sign	2007	2008	rate
1	Revenue from product sales, mln.rub.	RS	840,0	628,6	0,748
2	Operating expenses:				
2.1	Cost of sales, mln. rub.	CS	634,7	488,1	0,769
2.2	Business expenses, mln.rub.	SE	3,2	6,5	2,031
2.3	Administrative expenses, mln.rub.	AE	205,0	136,3	0,665

Significant increase in selling expenses by more than 2 times is alerting. Selling expenses is the cost associated with the promotion of the products. Given that revenue decreased by 25%, and costs associated with the sale of products increased by 2 times, one can say that the expenditures were clearly excessive, with negative impact on profits. It is necessary to adjust selling expenses and sales.

A significant reduction in administrative expenses positively characterizes the company's management. The company reacted in time to the deteriorating market conditions, including a decrease in sales, and reduced management costs, which to some extent graded worsening of financial condition. However, this reduction did not compensate insufficient reduction of production and business expenses, which negatively affected the formation of the company's profit, the deterioration of the balance of interests and, therefore, a potential decrease in the market value of the company.

These are the final recommendations for the management of JSC "Reduktor" for the growth of the business value in the near future:

- payment of dividends;
- strengthening of control of operating costs (reduction of production costs must be adequate to the reduction of sales);
- reduction of business expenses (in this case, the costs incurred failed to achieve the necessary level of sales, therefore, they were ineffective and redundant).

For purposes of the market value management of JSC "Reduktor" in the long term, as well as to eliminate the influence on the process of speculative and non-fundamental factors it is useful to analyze bottlenecks in the balance of interests for several periods of time (Table 22).

In the column "Years" there is problem degree of the indicators of the balance of interests for years, obtained according to the algorithm discussed above. In the column "Mean value" the mean value of the indicators' problem which is the empirical expectation is calculated by the formula (21). This means that in the event of failure to improve the balance of interests, its expected value will be 61% (Table 18), and the major bottlenecks that impede the growth of the market value, will be the indicators with the lowest mean value of problem (Table 22). In respect of JSC "Reduktor" they are:

- 1. The amount of dividends paid (the mean value of the problem 1);
- 2. Profit after interest and taxes (the mean value of the problem 2.0);

3. Revenue from sales (the mean value of the problem - 2.8). For clarity, we transform the column "Mean value" in the graph of urgency (Figure 9).

$$D \rightarrow NE \rightarrow RS \rightarrow P \rightarrow N \rightarrow TA$$

**Figure 9.** Graph of urgency in managing the business value for JSC "Reductor" for the long term.

Table 22
Problem degree of the key indicators of the interests' balance of JSC "Reduktor" for the period 2005-2008

No.	Indicator	Sign		Mean			
NO.	indicator	Sign	2005	2006	2007	2008	value
1	Revenue from product sales, mln.rub	RS	1	4	1	5	2,8
2	Profit before tax, mln.rub.	Р	3	3	3	3	3,0
3	Profit after interest and taxes, mln.rub.	NE	3	1	3	1	2,0
4	Total assets, mln.rub.	TA	6	4	6	6	5,5
5	The number of employees	N	3	4	3	4	3,5
6	The amount of dividends paid, rub.	D	1	1	1	1	1,0

We have got a curious result. At first glance, the dramatic situation with the achievement of a balance of interests in 2008 is due to deteriorating economic conditions and the financial crisis. This is partly true. Many firms curtailed or sequestered their investment programs in a lack of cash liquidity and bank lending. JSC "Reduktor" is the machine-building enterprise,

its sales depend on such investment demand. This probably explains the serious decline in sales of the company in 2008. However in the context of the balance of interests (standard dynamics (12)) and management of the market value decline in revenues is not the main problem. The fact is that the key issues for JSC "Reduktor" are not revenue from sales (RS), but the dividends paid (D) and net earnings (NE). We can confidently state that these factors limit the growth of the market value of the company, and the crisis does not have a decisive influence. If the shares of JSC "Reduktor" were traded in the open market, it is likely that it would be possible to confirm by the corresponding change in stock prices. Recommendations to improve the situation for the whole period are the same as for 2008, due to the match of problems nature.

Thus, by the built tools we have determined the level of results achieved by managers in the management of the market value of "Reduktor." 31.3% in 2008 and 61% on average over the past four years. As it can be seen, there are the growth reserves of the market value. For the growth of the balance of the interests up to 100% priority actions are identified that will lead to the maximum increase in the value of business. The choice of management actions is formalized and it is not based on expert and intuitive assessments, which is a great help for the management of the enterprise during the process of the market value management. As it has been shown above, to manage the market value according to the standard dynamics of indicators it is not necessary that the company's shares are actively traded on the stock market. Moreover, to manage the value according to the standard dynamics of the key indicators there is no need to know and evaluate the market value itself that objectifies and simplifies management.

## 3.3. Basic trends of market value growth of Russian corporate sector

After the assessment of the key problems of the company,

which shares are not traded on the stock market, let's compare them with the basic tasks for managing the business value of the vanguard of the Russian corporate sector, companies which shares are actively traded on the financial market. At first we analyze the main problems in achieving a balance of interests for the largest Russian issuers (Table 23). For this we have used the developed by us computer program, which is freely available on the website "New technology and financial analysis of corporate management" [93].

Table 23
Problem degree of indicators of interests' balance of major Russian companies in 2008

No.	Companies	N	TA	RS	Р	NE	D
1	Avtovaz	1	5	1	1	4	6
2	KAMAZ	5	6	4	3	1	1
3	Uralkali	1	1	1	1	1	6
4	Metafrax	5	6	4	1	1	1
5	Akron	4	5	3	2	1	6
6	Aeroflot	4	3	4	4	1	1
7	Baltika	5	1	2	2	2	6
8	Wimm Bill Dann	3	6	1	4	4	1
9	GAZPROM	4	4	4	3	1	1
10	Tatneft	4	5	5	3	1	1
11	Lukoil	1	4	1	1	1	6
12	Norilsk Nickel	6	5	4	1	1	1
13	Surgutneftegaz	1	1	1	1	1	6
14	MTS	5	5	4	1	1	1
15	Rostelecom	3	5	3	2	1	6
16	Gazprom Neft	3	4	4	2	1	6

No.	Companies	N	TA	RS	Р	NE	D
17	Magnitogorsk Iron and Steel Works	4	5	5	3	1	1
18	Novolipetsk Steel	n/a	n/a	n/a	n/a	n/a	n/a
19	Uralsvyazinform	3	5	3	2	1	6
20	GAZ	5	6	1	1	1	1
	The average for all companies		4,32	2,89	2,00	1,37	3,37
Problem degree of the indicator for the market in general		5	6	3	2	1	4

where, N — the number of employees;

*TA* – total assets;

*RS* – revenues from sales of products;

P – profit before tax;

NE - profit after interest and taxes;

D - amount of dividends paid.

The table shows the data for each company separately, and on the average at the market (line "The average for all companies"). In the bottom line, in addition, the average indicators of the enterprises are ranked in ascending order. Thus we have set priorities in improving the management of the market value of Russian companies in general. Let's build the graph of urgency (see Figure 10).

$$NE \rightarrow P \rightarrow RS \rightarrow D \rightarrow N \rightarrow TA$$

**Figure 10.** The graph of urgency in managing the business value for the Russian corporate sector.

It can be noted that for the companies which shares are actively traded on the stock exchange (as opposed to JSC "Reduktor") payment of dividends appears adequate prerequisite of successful corporate management and it is not a key problem of balance of interests, and therefore it is not an obstacle to the growth of the market value. But here, as in the case of JSC "Reduktor", the formation of company profits is among the main problems. Apparently, the average Russian corporation cannot provide adequate revenue growth, increase in costs does not match the volume of sales achieved. This can be explained by different reasons. For example, measures to stimulate sales, followed by an increase in marketing budgets are redundant and do not lead to the achievement of the objectives for which they were planned. In this case, the balance can be corrected by reduction or adoption of new marketing budgets. The largest Russian companies need to strengthen cost control, most of which, according to the graph of the urgency, are inefficient and unproductive. In addition, you can see that rapid growth of assets of a company in relation to indicators of return - earnings (NE) and sales revenue (RS) indicates an inefficient use of resources.

Problems with the indicator "Sales revenue" lie in the same plane as the problems with the profit and assets of the company. Incoming revenues are not enough to justify the excessive cost increases of the company and the growth of its assets. Efforts should be made to the growth in sales, and the costs of these efforts should not exceed the benefits derived from the activities. Otherwise, the rate of cost growth will be more than the rate of revenue growth, which is contrary to the "golden rule of economics." There will also be appropriate measures to reduce costs, adjusting the rates of revenue and cost growth.

To complete the picture and design activities for the long term we will summarize the results of activities of the largest Russian companies for the period 2003-2008 (Table 24).

Table 24

Problem degree of the indicators of the interests' balance of the

larges	largest Russian companies for the period 2003-2008										
No.	Companies	N	TA	RS	P	NE	D				
1	Avtovaz	1,67	4,00	2,33	3,00	2,17	4,33				
2	KAMAZ	4,67	3,00	3,67	3,50	2,00	1,00				
3	Uralkali	1,50	3,50	2,50	2,67	1,33	3,50				
4	Metafrax	2,83	4,00	2,67	2,83	1,17	4,33				
5	Akron	1,83	4,17	2,50	2,00	2,17	5,17				
6	Aeroflot	2,67	3,83	2,67	2,50	1,50	4,33				
7	Baltika	3,50	3,33	2,83	2,33	1,33	5,17				
Ω	Wimm Bill Dann	4 33	3.67	3 33	2.67	2.50	1 83				

_		-,	-,	-,	-,	_,	-,
3	Uralkali	1,50	3,50	2,50	2,67	1,33	3,50
4	Metafrax	2,83	4,00	2,67	2,83	1,17	4,33
5	Akron	1,83	4,17	2,50	2,00	2,17	5,17
6	Aeroflot	2,67	3,83	2,67	2,50	1,50	4,33

4	Metafrax	2,83	4,00	2,67	2,83	1,17	4,33
5	Akron	1,83	4,17	2,50	2,00	2,17	5,17
6	Aeroflot	2,67	3,83	2,67	2,50	1,50	4,33
7	Baltika	3,50	3,33	2,83	2,33	1,33	5,17
8	Wimm Bill Dann	4,33	3,67	3,33	2,67	2,50	1,83
9	GAZPROM	3,33	3,17	3,33	2,50	1,17	5,17
10	Tatneft	2,33	4,50	8,83	2,83	2,00	5,17
11	Lukoil	2,83	4,00	2,33	2,00	1,33	6,00
12	Norilsk Nickel	1,83	4,00	1,83	2,17	1,67	4,33
13	Surgutneftegaz	2,67	3,17	3,33	1,83	1,50	5,17
14	MTS	3,83	3,00	3,00	1,83	1,00	5,17
15	Rostelecom	2,17	4,33	2,67	2,50	1,83	5,17
16	Gaznrom Neft	4 17	3.67	3.67	2 17	1 22	1 33

6	Aeroflot	2,67	3,83	2,67	2,50	1,50	4,33
7	Baltika	3,50	3,33	2,83	2,33	1,33	5,17
8	Wimm Bill Dann	4,33	3,67	3,33	2,67	2,50	1,83
9	GAZPROM	3,33	3,17	3,33	2,50	1,17	5,17
10	Tatneft	2,33	4,50	8,83	2,83	2,00	5,17
11	Lukoil	2,83	4,00	2,33	2,00	1,33	6,00
12	Norilsk Nickel	1,83	4,00	1,83	2,17	1,67	4,33
13	Surgutneftegaz	2,67	3,17	3,33	1,83	1,50	5,17
14	MTS	3,83	3,00	3,00	1,83	1,00	5,17
15	Rostelecom	2,17	4,33	2,67	2,50	1,83	5,17
16	Gazprom Neft	4,17	3,67	3,67	2,17	1,33	4,33
17	Magnitogorsk Iron and Steel Works	1,83	4,50	2,50	2,33	1,83	4,33
18	Novolipetsk Steel	1,67	4,20	2,00	2,80	1,20	5,00
19	Uralsvyazinform	2,00	3,83	3,33	2,50	1,17	6,00
20	GAZ	2,67	3,83	2,17	2,67	1,67	3,50
T1							

7	Baltika	3,50	3,33	2,83	2,33	1,33	5,17
8	Wimm Bill Dann	4,33	3,67	3,33	2,67	2,50	1,83
9	GAZPROM	3,33	3,17	3,33	2,50	1,17	5,17
10	Tatneft	2,33	4,50	8,83	2,83	2,00	5,17
11	Lukoil	2,83	4,00	2,33	2,00	1,33	6,00
12	Norilsk Nickel	1,83	4,00	1,83	2,17	1,67	4,33
13	Surgutneftegaz	2,67	3,17	3,33	1,83	1,50	5,17
14	MTS	3,83	3,00	3,00	1,83	1,00	5,17
15	Rostelecom	2,17	4,33	2,67	2,50	1,83	5,17
16	Gazprom Neft	4,17	3,67	3,67	2,17	1,33	4,33
17	Magnitogorsk Iron and Steel Works	1,83	4,50	2,50	2,33	1,83	4,33
18	Novolipetsk Steel	1,67	4,20	2,00	2,80	1,20	5,00
19	Uralsvyazinform	2,00	3,83	3,33	2,50	1,17	6,00
20	GAZ	2,67	3,83	2,17	2,67	1,67	3,50
	The average for all companies		3,79	3,08	2,48	1,59	4,45
Problem degree of the indicator for the market in general		3	5	4	2	1	6

The table presents the average values of the indicators for the balance of interests in 2003-2008, as well as the data to construct a graph of urgency to manage the market value for the entire period 2003-2008. The graph of urgency is as follows (Figure 11).

$$NE \rightarrow P \rightarrow N \rightarrow RS \rightarrow TA \rightarrow D$$

**Figure 11.** The graph of urgency in managing business value for the Russian corporate sector for the period 2003-2008

Throughout the period under review, the most acute angles of corporate relations in Russia were the formation of clean and balance profit. The issue of understating of income by managers, consciously or unconsciously, and reduction of the amount of funds available for use by shareholders, is the most current issue in the Russian corporate governance to the present day. Thus, the balance of corporate interests in our country is shifted to managers who using all available means, seek to keep under their control money as much as possible, regardless of the infringement of their employers -the owners of the company. Is this a reason for the relatively low capitalization of Russian companies? To smooth or camouflage the situation, managers provide good dividend growth, creating the appearance of relative prosperity. We think that it is not difficult to managers, since the dividends are limited by the amount of income understated by them. Understated income, therefore, leads to the understated dividends, which makes it easy for managers not to reduce their dynamics.

Hence, the owners of firms in assessing compliance of their interests should pay attention primarily to changes in earnings indicators, not dividends, which can be confusing to not only inexperienced investors, but also sophisticated. Shareholders can quite reasonably require their managers to increase profits and dividends without compromising the balance of corporate interests. That way it is possible to correct the resulting imbalance and create the conditions for the growth of total value of the corporate sector of the economy.

Thus, we have constructed a tool of the market value management of the company, which allows determining the level of the result achieved without direct valuation procedures, which makes cheaper and simplifies the process of management. Subjectivity is eliminated inner in the valuation of business, and management strategies. It is also necessary to note one more important feature of the proposed tool: the direct information for decision making follows from the proposed methodology, besides the distinguishing feature of the considered method is its unique character and information self-sufficiency. The mechanism of removing bottlenecks in management of business value is based on the construction of the graph of urgency, with the result that the priority actions for the elimination of the negative trends in the market value change follow from the methodology and are clearly formalized, and they are not based on intuition and skills of a manager.

According to the materials of the third chapter, there are the following conclusions.

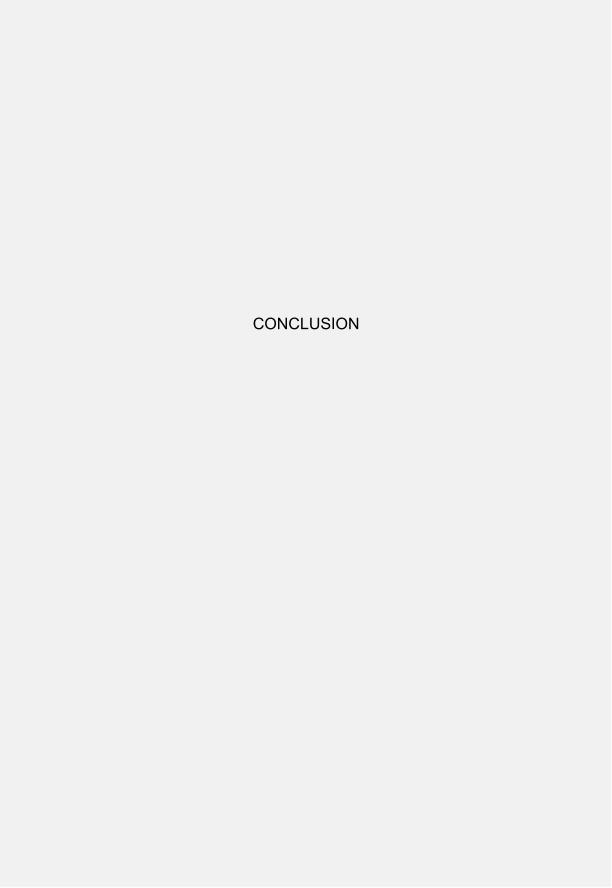
- Management of the market value of the business on the balance of interests requires coordinated growth of the indicators. To ensure the growth of enterprise value, in this context, the growth of individual indicators is not enough. There is a need for the different tools providing the coordinated growth of the key indicators, achievement of which will cause a maximum increase of the market value of the company.
- 2. As the tool of effective management of business value an analysis of differences in the ranks of the indicators in the standard order and their ranks in the actual order is offered. This will allow creating an action plan to establish full balance of interests, and to rank them in order of urgency to correct the situation, which as it has been shown will lead to a positive change in the value of the enterprise.
- 3. The forming algorithm of the urgency graph of the market value management is offered. At the beginning

of the graph there are aspects of enterprise management, which require urgent attention. As you move to the end of the graph the tension in the indicators recedes, and they do not require any major changes in the activities associated with them. This graph is a standard correction. Its implementation allows approaching the standard order of the rates.

- 4. On basis of the developed tool the analysis of value management of JSC "Reduktor" is conducted. We managed to diagnose the problems in this area, which are not determined by conventional methods. Despite the outward prosperity and growth in key performance indicators, we have identified a number of problems, solution of which will significantly increase the value of the analyzed company. Note that shares of "Reduktor" are not traded on the stock market; however, we have shown that the proposed activities will lead to an increase in their value.
- 5. The example of JSC "Reduktor" has shown that non-payment of dividends associated with the direction of the profit on the development of the company for the benefit of shareholders, is not so good in reality. Therefore, non-payment of dividends is a factor that has a negative impact both on the value of shares and the balance of interests. In addition, managers typically use ineffectively this type of resources, what we have also seen with regard to the analyzed company.
- 6. In respect of JSC "Reduktor" the graph of urgency to enhance the business value was built. Recommendations are: to increase the market value of JSC "Reduktor" it is necessary to put into practice the payment of dividends, to strengthen control of operating costs, to reduce business expenses. To get the desired result we did not need to know and evaluate the market value itself that objectifies and simplifies the process of management.
- 7. The construction of the standard dynamics of the indicators allows assessing the balance of interests of a company,

to measure the effectiveness of value management, it gives direct information to redress the situation and establishes a system of monitoring of the company's dynamics. The information obtained is the basis of balance of interests and improvement of management efficiency.

- 8. The main problems in the management of the value of Russian corporations are (in descending order of problem degree) the formation of net earnings, balance profit and sales revenue. An average Russian corporation cannot provide enough revenue growth, increase in costs does not match the volume of sales achieved. Actions are needed, perhaps the most radical, to eliminate the negative bias in the balance of interests.
- 9. The payment of dividends is not a problem of the Russian corporate sector, this parameter of the balance of interests is at an acceptable level. However, this may be due to the understating of the firm's profits by managers, which naturally leads to a relatively low amount of dividends paid.
- 10. The balance of interests in Russia is shifted to managers who, using all available means, seek to keep under their control as much money as possible, regardless of the infringement, thus, their employers - the owners of the company. To smooth or camouflage the situation, managers provide good dividend growth, creating the appearance of relative prosperity.



## **CONCLUSION**

It is justified in the work that the management of the enterprise should be aimed at ensuring the growth of the business value, rather than its maximization, as it is suggested by many experts. Otherwise, the concept of value management of a company faces many limitations and becomes hardly applicable in practice. In particular, one of the main difficulties in the management of value is its evaluation. Variability of estimates can be quite substantial, depending on the method of evaluation, investors' views on the future of the company and required return. Therefore, when managing the value it is necessary to focus not on its numerical value but on its change.

Market values indicator cannot be the only criterion for the successful management of an enterprise value. In the arsenal of the company managers there are a number of tricks which allow increasing the market value in the short-term at the expense of long-term prospects. Therefore, there is the need to link several indicators characterizing the growth of the company and its value. For the same reason, the motivation of managers to increase value based on option programs is poor practice, which exacerbates the division of interests of owners and managers.

Evaluation and management of value are the subjects of subjectivism, in particular, due to investors' attitude to risk and return. The only objective indicator is the market value of the company, which has restrictions on use. Among them, the need for a transaction of sale, shares traded on the exchange, speculative character, influence of many factors, heterogeneity of demands from interest groups. Therefore, in the work such criterion of value has been developed which would eliminate the restrictions mentioned.

Market value indicator has wide practical application. It is an indicator of welfare of company owners, it expresses feedback from the external business environment, serves as a key performance indicator of the outcome, characterizes the ability to attract external funding, and it is an indicator of the competitiveness of the company. Therefore, the regular assessment of the market value of the company is necessary and it allows analyzing the activity results of the company and its management.

The mechanism of formation of the business value is as follows:



The presented mechanism explains how on the basis of financial indicators management (according to the concept of KPI) the inner value is formed and, further, the market value of the enterprise.

Management of the company value should be implemented through the financial indicators characterizing the balance of interests. This conclusion is reached based on the theoretical analysis of the two groups of factors of business value: fundamental indicators and corporate management. Application of fundamental indicators separately from each other significantly distorts the information about the activities and value of the company. In addition, traditional approaches to the management of the indicators do not allow selecting and justifying the contribution of individual indicators in the final cost, to eliminate subjectivity of estimates. It is required to consider the relationship of dissimilar indicators and formalize the selection of the most significant factors of the value forming. Corporate management is treated as a joint activity of the business owners and managers to ensure a fair balance

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of interests that do not always coincide. The reasons may be different, bearing both positive and negative tinge. Consequently, the company value management should be implemented through the regulation of the balance of interests of the shareholders and managers of the company.

Establishment of a market value of a company happens by means of comparison of its inner value and market price. The higher the inner value for the majority of investors in comparison with the market price, the greater the increase in market value. And vice versa. This fact is used in the development of tools for the value management of a firm. Providing positive dynamics of indicators characterizing the ability to create value for shareholders, managers thereby contribute to the growth of business value.

In the basis of the market value management there is management of the key indicators shown in the open financial statements of a company: sales volume, balance profit, profit after tax, total assets, number of employees, paid dividends. The set of indicators may vary, but it is important that they have the properties of a dynamic hierarchy and dynamic comparability. This allows reconciling conflicting at first glance requirements of different interest groups such as shareholders and managers. Further, the properties can deal with the embellishment of financial statements that is allowed by applicable law, but it is misleading for potential investors.

Built tool of value management has the property of universality, that is, it can be used both in the case of management of shares value and in management of business value. If the company's shares are actively traded on the stock market, the management of market value is focused on growth in the value of shares of the company. If not, then - on the growth of business value.

Management of the market value of the business on the balance of interests requires interrelated growth of indicators. To ensure the growth of enterprise value, in this context, there is not enough growth of individual indicators. Management of the market value is based on the standard dynamics of key performance indicators:

$$\begin{cases} 1 < Rate(N) < Rate(TA) < Rate(RS) < Rate(P) < Rate(NE) \\ 1 \le Rate(D) \end{cases}, (12)$$

where Rate(a) — the growth rate of the indicator a; N — number of employees; TA — total assets; RS — revenue from sales of products; P — profit before tax; NE — profit after interest and taxes; D — amount of dividends paid.

Presentation of the balance of interests in the form (12) allows us to quantify the degree of its compliance. This is done by calculating the normalized distance between the matrices corresponding to the standard and the actual order of the rates. To facilitate the calculations we recommend using a special computer program that is hosted freely available in the Internet at www.freean.ru.

The analysis of divergence of the indicators ranks in the standard mode and their ranks in the actual order acts as a tool of effective business value management. This will help to create an action plan to establish full balance of interests, and to rank them in order of urgency to correct this situation, which, as it has been shown, will lead to a positive change in the value of the enterprise.

We present in the work an algorithm for the formation of the graph of urgency of market value management. At the beginning of the graph there are aspects of enterprise management, which require urgent attention. As you move to the end of the graph the tension in the indicators subsides, and they do not require any major changes in the activities associated with them. This graph is corrective standard dynamics. Its imConclusion 137

plementation allows approaching the standard order of rates.

In the present study we have revealed the relationship of quantitative value of balance of interests and market value of shares, which is generally observed, but at individual enterprises in certain periods of time it can be broken. This is due to the influence of non-fundamental factors on the value such as speculative or other similar factors. However, the impact of speculative factors on the value of business is limited and short-term and during long-term time intervals the effect of achieved balance of interests on the value is much more obvious. Leaders in average value of balance of interests are also the leaders in the growth of shares value.

The desire to observe the standard dynamics (12) during the economic crisis allows expecting a more rapid recovery of value, in the case of improvement of macroeconomic situation, compared to similar companies. The paper presents an evidence of this thesis. Among the leaders of growth in the value of shares there are all the leaders in balance of interests that have tried to keep it at a high level in times of crisis.

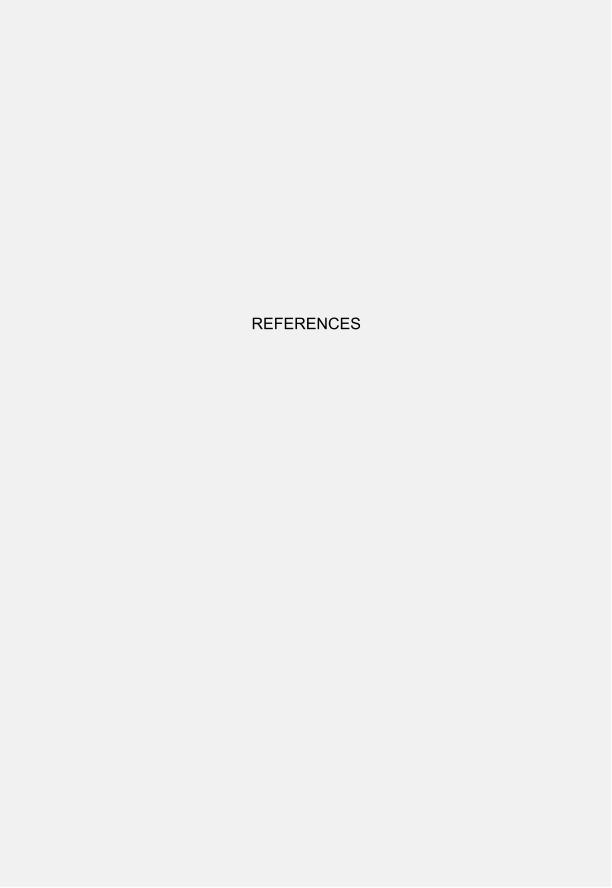
We have shown that non-payment of dividends associated with the direction of the profit on the development of the company for the benefit of shareholders, in reality is not so good. Therefore, non-payment of dividends is a factor that has a negative impact both on the value of shares and the balance of interests. In addition, managers typically use ineffectively this type of resource, as we have also seen by an example of a particular company.

The main problems in the management of the value of Russian corporations are in descending order the degree of problem, formation of net earnings, balance profit and sales revenue. Average Russian corporation cannot provide enough revenue growth, increase in costs does not match the volume of sales achieved. Actions are needed, perhaps the most radical, to eliminate the negative bias in the balance of interests.

The payment of dividends is not a problem of the Russian

corporate sector, this parameter of the balance of interests is at an acceptable level. However, this may be due to understating of company's profit by managers, which naturally leads to a relatively low amount of dividends paid.

Thus, the construction of the standard dynamics of the indicators allows to assess the balance of interests of the company, to measure the effectiveness of value management, it gives direct information to redress the situation and establishes a system of monitoring of the company's dynamics. The information obtained is the basis of the balance of interests and improvement of management efficiency.



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