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Mechanisms for improving corporate capital structure management in the Republic of Kazakhstan

The article is devoted to the issues in the field of the capital structure of the corporation management, maximization of the market value of the enterprise; minimization of the weighted average cost of the enterprise' capital; minimization of the level of financial risks of the enterprise, activity; maximization of the level of financial profitability. A value management is a process aimed at maximizing the value of the company. It is designed to develop the value thinking of the company's employees, based on the key value factors. It should improve two-way information exchange, as it allows all the members of the organization «to speak one language that everyone understands». Management of the company's value consists in the fact that it should be aimed at the ensuring of the company's market value and its shares growth. The value creation is a universal topic of various methods of improvement, such as total quality management, process-oriented cost management, stocks to be delivered on time, business process re-engineering, time management, etc. The growth of the company's profits over time creates a value. Companies use a variety of methods to support their growth, from the introduction of new products and services to strategic alliances and the purchase of competitors. Increasing of the return rate is an important way to increase value. Companies must control working capital activities in order to have the necessary funds when they are needed. For a number of organizations, intellectual assets such as patents, trademarks, consumer and supplier relationships, industry knowledge, trained personnel and the knowledge of their company's peculiarities are in many ways considerably more valuable than their fixed assets, i.e. they increase the market value of the company.

Keywords: management of capital structure, market value of an enterprise, weighted average cost of capital of an enterprise.

The modern developed world market system and the foreign economic activity of Kazakhstan companies necessitate the active introduction of modern capital structure formation models and the development of a value-based approach to company management — Value Based Management (VBM) in the country's economic life.

The theory of financial management has radically changed previous ideas about financial management of a company, first of all, with regard to the strategic goal of its functioning, which was considered to be the growth of well-being of owners, provided not by maximizing profits, but by increasing the market value of the company. In accordance with this, the optimal capital structure means such a combination of equity and borrowed capital that provides the maximum market value of all capital.

Recognizing the increase in the value of the company as its main strategic goal requires the development of conceptual frameworks for optimizing the capital structure in the value management system. It should be noted that, despite the presence of numerous studies in this area, in the economic literature there is no holistic concept of the formation of an optimal capital structure within the framework of the cost approach to company management.

The basic tenets of VBM can be identified as follows:

– maximizing the value of the company is the main criterion for the effectiveness of the company and a priority goal of strategic management, which involves the formation of targets and the definition of the system of key factors for creating value;

– the leading role in the system of key factors of value creation is played by cash flows and the cost of capital invested in assets to generate these flows.

Despite the fact that the theory of capital structure as the target criterion for optimization considers the growth of the market value of the company, in economic literature and economic practice often come from a plurality of criteria. So, Honored Scientist, Doctor of Economics, Professor I.A. The form notes that modern theories of capital structure have an extensive methodological toolkit for optimizing this indicator, in which the main criteria are: maximizing the market value of the enterprise; minimization of the weighted average cost of capital of the enterprise; minimization of the level of financial risks in the enterprise; maximization of the level of financial profitability [1; 48].

The essence of the concept of company value management is that management should be aimed at ensuring the growth of the market value of the company and its shares. Due to the great practical importance, issues within the framework of the concept of cost management are widely reflected in scientific and practical research.

A great contribution to the popularization of the cost-based approach to management was made by employees of the consulting company McKinsey. The book of company partners Tom Copeland, Tim Koller and Jack Murrin, «The value of companies: evaluation and management» «Valuation: Measuring and Managing The Value of Companies» has become a bestseller of business literature in many countries of the world [2; 66].

Creating value today is considered the number one task for managers. Value creation is the universal theme of various improvement methods, such as total quality management (T9M), process-oriented cost management, on-time supplies, business process reengineering, time management, etc. Managers realized that improving individual performance indicators must be translated into value added for the entire organization, and not just for a specific department. Progress on one site does not provide long-term success. Thus, the improvement process must be sustainable and lead to optimization of the entire company.

In recent years, the emphasis on value creation has been strengthened by special attention, which has retreated from complex indicators of value, such as economic value added. Not being new, levers such as process-oriented costing, total quality management, more powerful databases and analytical tools, as well as more dispersed processing allowed companies to implement these methods to a greater extent than previously thought possible.

The limitation of long-term improvement measures often did not allow optimization of the value creation task. For example, measures for reengineering business processes often lead to an immediate reduction in costs, which, it would seem, increases the cost. However, the effects of such methods are rarely long. At some point, companies will need to focus on growth.

The stock market has long realized that the success of companies cannot be achieved only by reducing costs. There is an opinion that the stock market evaluates companies that increase profits by increasing sales three times higher compared to those companies that increase profits by reducing costs. Despite the fact that cost reduction will lead to a temporary increase in profits, such cost savings should be aimed at the growth of the company. In other words, a company cannot shrink in its path to greatness. She must find a more effective way to ensure profit growth [3; 87].

Companies that are aware of the need to create value are faced with the question of how to value it. Businesses traditionally measure value using financial indicators such as earnings, P/E ratio (Price to Earnings ratio), cash flow and return on equity. Recently, equity measures such as economic value added and market value added have been used as a measure of value created by an organization. The purpose of using any financial indicators is to enable shareholders to evaluate the financial results obtained by the organization.

In addition to the value that is estimated using financial indicators, both commercial and non-profit organizations create intangible value. Often this finds expression in the form of creating intellectual capital, associated, for example, with achieving a deeper understanding of processes and increasing the potential of innovation. Despite the fact that with existing accounting systems it is difficult to measure such a cost, most financial and production workers agree that they are extremely important for assessing the value created by an enterprise.

During the study of the formation of the capital structure and its role in managing the value of the company through literature, periodicals and analysis, many factors were noted. Namely: the volume of production, return on sales, the amount of borrowed capital, the amount of equity, the level of interest rates, tax burden and much more. However, one cannot fail to note the special role of risk management.

Companies with high quality financial management are constantly working on refinancing debts in order to reduce the cost of borrowed capital. Work of this kind was carried out at Aluminum of Kazakhstan JSC during the default of 2011 as part of the diversification of currency risk. Reducing the cost of borrowing is also achieved through the structuring of loans. The loan is attracted for a period of six months against the security of GDR and is structured on the basis of a forward contract (6.8 %), repaid at the end of the period, and a swap (1.5 %) [4].

We must not forget that the joint-stock company is a public organization, and working with public borrowed capital makes companies creatively approach financial offers to the market. Most borrowers market unsecured bonds that have a lower credit rating and are therefore more expensive for the company.

Note that this model of behavior of issuers in the market is not acceptable to the financial policy of Aluminum of Kazakhstan JSC.

The financial market forms the market prices of capital attracted from various sources. The task of the financial manager is to provide a reduction in the cost of capital for the company, choosing the best options for attracting it.

In the educational literature, various methods and models for minimizing WACC are presented, the choice of model is made based on the task of the financial manager, so when choosing methods such as minimizing the WACC using credit ratings to assess risk or using the APV method with estimates of the costs of financial difficulties, — manager will focus on creating added value for the corporation.

For example, in order to assess the position of Aluminum of Kazakhstan JSC on the market, as well as to consider the industry average capital structure indicator, based on the financial statements of the main company — a competitor of Rusal OJSC, which includes Novokuznetsk and Bratsk aluminum plants, which provide 4 % of the total annual aluminum needs in the world, the calculation of the indicator of capital structure, presented in Table 1.

Table 1

Analysis of the capital structure indicator of competing companies of Aluminum of Kazakhstan JSC for 2018, thousand tenge

	Rusal OJSC	JSC Aluminum of Kazakhstan
Amount of equity	1 838 136 000	101 900 400
Amount of borrowed capital	1 074 336 000	66 578 702
Capital structure indicator	0.59	0.6533704

In this Table 1, the current capital structure is slightly higher than the level of the capital structure indicator of JSC Rusal, but slightly. Strictly speaking, the sales markets of these companies have long been identified. Rusal OJSC is a producer of mainly finished aluminum, while Aluminum of Kazakhstan JSC is a supplier of raw materials, in other words, semi-finished products, for the manufacture of aluminum for the world market. However, since the ENRC group of companies also includes Kazakhstan Electrolysis Plant JSC, i.e. the production cycle within the corporation is completed, which means that products can be competitive in the market in case of superior price and quality. The price level of finished products largely depends on the profitability of production, the liquidity of the company.

Aluminum of Kazakhstan JSC is part of one of the largest holdings in the world, which means that the value of the company determines in many respects the value of the corporation as a whole. This comparison allows us to note a slight discrepancy in the level of capital structure, which, incidentally, is not a constant and directly depends on market conditions, both the stock and the sales market.

A financial manager must know the value of capital of his company for many reasons:

1. The cost of capital characterizes the rate of return on invested capital, which the company must provide in order not to reduce its market value (its minimum profitability).
2. The cost of capital is one of the key factors in the analysis of investment projects.
3. The cost of equity, in fact, represents a return on the resources invested by investors in the activities of the company and can be used to determine the market value of the IC (Gordon's model).
4. The cost of borrowed funds as a source of capital is associated with interest paid, so you need to be able to choose the best opportunity from several options for attracting capital.
5. The maximum market price of the company is achieved as a result of a number of factors, in particular, by minimizing the cost of advanced capital.

Thus, we see the need for analysis of the capital structure: justification of the existing capital structure of Aluminum of Kazakhstan JSC or recommendations for its change.

Let us analyze the optimality of the capital structure of Aluminum of Kazakhstan JSC using the leverage method. Since the main criterion for optimizing the capital structure considered in this thesis is the maximization of the value of Aluminum of Kazakhstan JSC, as a minimization model, we consider the method of leverage pairing.

The company Aluminum of Kazakhstan JSC annually sells about one and a half million tons of alumina. At this level of sales, operating profit (EBIT) in 2018 amounted to 14,031,411 thousand tenge.

At this stage, it is necessary to determine the level of effect of the conjugate lever. The profit volatility of Aluminum of Kazakhstan JSC depends on aluminum prices in the stock market. The variability of demand for the products of Aluminum of Kazakhstan JSC according to the estimates of the corporation's marketers, the level of historical volatility of demand for aluminum will not exceed 60 % in the industry. Thus, the calculated effect of the conjugate leverage for the reported sales volume is 2.4 (calculated as the ratio of demand volatility to profit volatility and amounted to 60/25) (thus, the elasticity of net profit to change in revenue was 2.4).

The owners of the company consider the value of the effect of conjugate leverage at the level of 2.4 as optimal, since with such fluctuations in net profit the company will be able to provide payments on preferred shares, continue investment and social programs. A higher value of the associated leverage will mean the potential possibility of insufficient profit of JSC Aluminum of Kazakhstan for further operation. The company's borrowed capital in 2018 amounted to 66 578 702 thousand tenge and represents a long-term loan, the average estimated interest rate on which amounted to 6.9 %. Thus, the annual payments of Aluminum of Kazakhstan JSC on borrowed capital amounted to 6.9 % of 66 578 702 thousand tenge, i.e. 4 593 930 thousand tenge.

To answer the question of whether the company can increase the level of debt, it is necessary to understand how the cost structure associated with the payment of this capital will change and whether the company's operational risk will increase, which can subsequently lead to a decrease in the value of the corporation.

The marginal income of Aluminum of Kazakhstan JSC amounted to 18,761,688 thousand tenge (fixed costs of the company amount to about 2 billion tenge annually). For Aluminum of Kazakhstan JSC, the ESM value will be: 18 761 688 thousand tenge / 14 031 411 thousand tenge = 1.3. For Aluminum of Kazakhstan JSC, the effect of operating leverage was 1.3. In order for the effect of the conjugate leverage (ESD) to remain at 2.4, the following ratio should be fulfilled: 18 761 688 thousand / (Operating profit — Financial payments) = 2.4 = ESD. Recall that the ESD shows how many percent the net profit will change when the sales income changes by 1 %.

The ratio of ESD is carried out at the value of annual financial payments calculated as follows:

18 761 688 / (14 031 411-financial outflows) = 2.4.

The permissible level of financial outflows will be 7,817,370 thousand tenge, which is more than the existing financial burden on profits by 3,223,440 thousand tenge.

Table 2

Analysis of the recommended capital structure of Aluminum of Kazakhstan JSC

Name of indicator	Amount, thousand tenge
Amount of equity	101 900 400
Amount of borrowed capital	113 295 240
Leverage ratio	0.526

Thus, the project to optimize the capital structure, which ensures a decrease in operating leverage, involves an increase in annual financial outflows by 3,223,440 thousand tenge.

If borrowing conditions are maintained (and agency costs, bankruptcy costs are ignored), the company's borrowed capital may be increased by 46,716,522 thousand tenge. (3,223,440 thousand / 0.069). The amount of borrowed capital will amount to 113,295,240 thousand tenge.

We will make calculations and analyze the recommended capital structure.

As can be seen from Table 2, the indicator of capital structure amounted to 0.8. The proposed capital structure is the ratio of borrowed capital to equity 113,295,240/101,900,400, or 52.6 to 47.4.

As can be seen from this ratio in the capital structure, the share of borrowed capital prevails over equity. At first glance, given the positive values of the effect of financial leverage, the recommended capital structure may be optimal. For a more accurate analysis, we will calculate the WACC.

Present in Table 3 data for the calculation of the WACC JSC «Aluminum of Kazakhstan».

Table 3

Calculation of WACC JSC Aluminum of Kazakhstan

	2018 capital structure	Recommended capital structure
E	101 900 400	101 900 400
D	66 578 702	407 601 600
Share D	0.4	0.566
rD	0.069	0.069
rE	0.18	0.18
Tax cover	(1–0.2)	(1–0.2)
Wacc	13 %	11,4 %

In this way, from Table 3 we see that the weighted average cost of capital decreases with an increase in the share of borrowed funds with a constant share of equity in the structure of the balance sheet and borrowing conditions.

The management concept based on the definition of economic value added (EVA) allows you to find out if the company earns enough compared to alternative investments.

Since one of the main reasons for analyzing the cost of capital is a guideline on the value of the corporation, we consider in Table 4 how the price of Aluminum of Kazakhstan will change when using a larger share of borrowed sources of financing for corporation projects.

Table 4

Calculation of EVA for Aluminum of Kazakhstan JSC, thousand tenge

Indicator	Actual capital structure	Recommended capital structure
NOPAT	11 769 795	11 769 785
CE	168 709 116	168 709 116
Wacc	0.13	0.114
EVA	11769795–21932185 = -10162390	11769785–19232840= -7463055

From Table 4, it is seen that the recommended change in the capital structure increases the EVA of Aluminum of Kazakhstan JSC by 2,699,335 thousand tenge.

A negative EVA of Aluminum of Kazakhstan JSC characterizes the inefficient use of capital and indicates a decrease in the value of the company.

Analysis of EVA on the example of Aluminum of Kazakhstan JSC clearly demonstrates the fact that ensuring the growth of corporate value is not always possible only by reducing the cost of advanced capital, changing the capital structure, which means WACC is not a determining factor in EVA.

The existing capital structure from the point of view of the American concept of capital structure is optimal, however, the increase in the cost of Aluminum of Kazakhstan JSC is not ensured even if it is changed to the most risky one. In the conditions of our market, it is almost impossible, 52.6 % to 47.4 %, banks do not give loans to enterprises whose share of borrowed capital is equal to their own in the capital structure.

In aggregate, all the factors of creating added value can radically change the existing policy of shareholders regarding the choice of the optimal capital structure. The disadvantages of the above model are the lack of an integrated approach to solving this problem. However, the model allows us to conclude that the reason for the loss of value of Aluminum of Kazakhstan JSC is not only the existing capital structure, but the fact that, given other stability of other EVA factors, it is impossible to optimize the corporation's capital structure.

Of course, it is impossible to ensure the stability of all indicators in market conditions, therefore the question of the optimality of the capital structure and the increase in the value of Aluminum of Kazakhstan JSC, like any other corporation, must be considered comprehensively. One of the ways of such a large-scale approach is modern methods of analyzing the optimality of capital structure, taking into account the value of assets, their profitability, and most importantly, allowing to consider all kinds of variations and the ratio of these indicators. In the course of modeling the process of optimizing the capital structure of a corporation, it is necessary to determine not only the optimal capital structure itself, but also the problems of the existing structure, which means that it indicates ways to solve them.

Ithink flowcharts are an ideographic representation of models at an average, basic presentation level. The ideograms of stream models are built from the following elements: funds; streams converters; connectors.

Let us consider one of the possible options for optimizing the structure of financing sources by increasing the return on assets of an enterprise (PA) in increments of 0.5 % and, accordingly, reducing the amount of borrowed funds (SC) by 1 billion tenge, assuming that borrowed capital is a long-term source of financing. The program used allows us to trace the dynamics of the effect of financial leverage over twelve periods. Comparing the amount of return on capital and the effect of financial leverage, it is easy to determine the period in which borrowed funds decreased significantly and financial leverage is maximum (Table 5).

Table 5

Values of indicators calculated on the basis of the model

Months	PA2, %	DFL2, %	SC2
Initial	8	4,18	66578702
1	8,5	4,33	65578702
2	9	4,48	64578702
3	9,5	4,61	63578702
4	10	4,73	62578702
5	10,5	4,84	61578702
6	11	4,94	60578702
7	11,5	5,03	59578702
8	12	5,12	58578702
9	12,5	5,19	57578702
10	13,5	5,46	56578702
11	14	5,51	55578702
12	14,5	5,56	54578702

Since in practice short-term borrowed capital, as a rule, is free of charge, we use the amount of long-term borrowed capital in the calculations, and to determine the return on assets, or, in accordance with the Ithink model. Since, in accordance with the results obtained during the simulation, the optimal capital structure was not found.

Thus, having analyzed the output indicators obtained on the basis of the dynamic model, it is clear that the optimal value was achieved in the twelfth period: PA = 14.5 %, DFL = 5.43 %, SC = 54578702.

Analyzing the data obtained, we can draw the following conclusions:

– the company needs to increase the share of its own funds by reinvesting profits made in previous periods of time;

– in accordance with the proposed option should increase the return on assets.

For further analysis of the cause of the loss of value of Aluminum of Kazakhstan JSC, we present EVA calculations similar to those performed in Table 6.

Table 6

Calculation of EVA for Aluminum of Kazakhstan JSC, thousand tenge

Indicator	Actual capital structure	Recommended capital structure
NOPAT	11 769 795	11 769 785
CE	168 709 116	54578702
Wacc	0.13	0.4
EVA	11769795–21932185 = -10162390	11769785–21831480.8= -10061696

From the data in Table 6, it can be seen that with the use of borrowed capital, which is 35 % of the total structure of long-term sources of financing of Aluminum of Kazakhstan JSC, the dynamics of changes in EVA is positive. However, in this case, the cost of capital will be 40 %, which is completely unacceptable from the point of view of practice in financial management. In addition, this value of the optimal capital

structure can be achieved under the conditions of the maximum effect of financial leverage only if the return on assets is 14.5 %, we recall that the return on assets in 2018 was 5.1 %. Since the proposed structure is also not optimal for Aluminum of Kazakhstan JSC, this model for diagnosing the optimality of capital structure also showed us the problem of low return on investment. Aluminum of Kazakhstan JSC is a solvent company, has no debts to the budget and state extra-budgetary funds, the successful activities of the company and the high level of financial management prove that despite the somewhat changed situation, there is no need to participate in debt restructuring.

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С.Ж. Нургалиева, Д.Ж. Турсынханов, С.Г. Симонов

Қазақстан Республикасындағы корпорация капиталының құрылымын басқаруды жетілдіру механизмдері

Мақала корпорация капиталының құрылымын басқару саласына, кәсіпорынның нарықтық құнын көбейту; кәсіпорын капиталының орташа өлшенген құнын азайту; кәсіпорын қызметіндегі қаржылық тәуекелдер деңгейін азайту; қаржылық рентабельділік деңгейін арттыруға арналған. Құнды басқару компанияның құнын барынша арттыруға бағытталған процесс болып табылады. Бұл компанияның барлық қызметкерлерінде құнның негізгі факторларына негізделген құндық ойлауды дамытуға арналған, сондай-ақ екі жақты ақпарат алмасуды жақсартуға тиіс, себебі ұйымның барлық мүшелеріне түсінікті бір тілде сөйлеуге мүмкіндік береді. Компанияның құнын басқару компанияның нарықтық құнының және оның акцияларының өсуін қамтамасыз етуге бағытталуы тиіс. Құнды қалыптастыру сапаны жаппай басқару, шығындарды процесске бағытталған басқару, нақты мерзімде жеткізілетін қорлар, бизнес-процестерді реинжинирингтеу, уақытты басқару және т.б. сияқты жетілдірудің әртүрлі әдістерінің әмбебап тақырыбы болып табылады. Белгілі бір уақыт бойы компания пайдасының өсуі оның құнын жасайды. Компания өзінің өсуін қамтамасыз ету үшін жаңа тауарлар мен қызметтер өндірісін енгізуден бастап стратегиялық одақтардың қорытындысына және бәсекелес компанияларды сатып алуға дейінгі көптеген тәсілдерді пайдаланады. Пайданың нормасын ұлғайту құнды арттырудың маңызды тәсілі болып табылады. Компаниялар қажет кезінде керекті қаражатқа ие болу үшін айналым капиталымен байланысты қызмет түрлерін бақылауға тиіс. Бірқатар ұйымдар үшін патенттер, сауда маркалары, тұтынушылар мен жеткізушілермен қарым-қатынас, салалық ерекшелікті білу, оқып үйренген персонал және өз компаниясын білу — көптеген қатынастарда олардың негізгі құралдарына қарағанда әлдеқайда бағалы болып табылады, яғни олар компанияның нарықтық құнын арттырады.

Кілт сөздер: капиталдың құрылымын басқару саласы, кәсіпорынның нарықтық құны, кәсіпорын капиталының орташа өлшенген құны.

С.Ж. Нургалиева, Д.Ж. Турсынханов, С.Г. Симонов

Механизмы совершенствования управления структурой капитала корпорации в Республике Казахстан

Статья посвящена вопросам в области управления структурой капитала корпорации, максимизации рыночной стоимости предприятия; минимизации средневзвешенной стоимости капитала предприятия; минимизации уровня финансовых рисков в деятельности предприятия; максимизации уровня финансовой рентабельности. Управление стоимостью является процессом, направленным на максимизацию стоимости компании. Оно призвано развить у всех работников компании стоимостное мышление, основанное на ключевых факторах стоимости, должно улучшить двусторонний обмен информацией, поскольку позволяет всем членам организации говорить на одном, понятном всем языке. Управление стоимостью компании заключается в том, что оно должно быть нацелено на обеспечение роста рыночной стоимости компании и ее акций. Создание стоимости является универсальной темой различ-

ных методов совершенствования, таких как тотальное управление качеством, процессо-ориентированное управление затратами, запасы, доставляемые точно в срок, реинжиниринг бизнес-процессов, управление временем и т.д. Рост прибыли компании на протяжении определенного времени создает стоимость. Для обеспечения своего роста компании используют огромное количество способов, начиная с внедрения производства новых товаров и услуг и заканчивая заключением стратегических союзов и покупкой компаний-конкурентов. Увеличение нормы прибыли является важным способом повышения стоимости. Компании должны контролировать виды деятельности, связанные с оборотным капиталом, чтобы иметь необходимые средства тогда, когда они потребуются. Для ряда организаций интеллектуальные активы, такие как патенты, торговые марки, отношения с потребителями и поставщиками, знание отраслевой специфики, обученный персонал и знание своей компании являются во многих отношениях намного более ценными, чем их основные средства, т.е. они увеличивают рыночную стоимость компании.

Ключевые слова: управление структурой капитала, рыночная стоимость предприятия, средневзвешенная стоимость капитала предприятия.