

Determining the Debt Capital Cost: The using New Method in Uzbekistan

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Abstract: In this article, the theoretical aspects of the methods and approaches for assessing the value of debt capital of joint-stock companies are described, and the main attention is focused on the use of debt ratios for the assessment of the value of debt capital used in developed countries. Also, based on the data of JSC " Kyzilkumtsement " , " Kokon Mechanical Plant " JSC, " Kvarts " JSC, " Jizzakh plastic " JSC and " Kuvasaytsement " JSC, which are joint-stock companies in our country, the value of debt capital of these companies was determined from 2015 to 2018. In particular, methods of evaluation through debt ratios in determining the value of debt capital are described. Also, the problems in assessing the value of debt capital of joint-stock companies have been identified, and scientific proposals and practical recommendations aimed at their elimination have been developed.

Keywords: debt capital, private capital, assets, liabilities, cost of capital, capitalization ratio, cost of debt capital, profitability, net profit, financial leverage.

INTRODUCTION

Today, the approaches and methods of the valuation standard are widely used to determine the value of debt capital of enterprises in developed countries. Also, the principles of assessment standards are implemented in calculating the value of debt capital and the value of property of enterprises with different forms of ownership . In particular, the valuation of capital of enterprises in developing countries is evaluated according to the international standard based on three different approaches: income, comparative and cost methods.

However, unfortunately, in our country, evaluation activities have not yet been improved, evaluation approaches and methods are not consistent with the principles of the international evaluation standard, and the fact that a unified evaluation standard based on the most advanced foreign experience in determining the capital value of the enterprise has not been introduced is one of the urgent issues of today. Also, the widespread use of only the cost approach in calculating the capital value of enterprises in our country, rather than the net assets and liquidity value method, indicates the existence of shortcomings in the evaluation process.

Therefore, the non-existence of a single national standard that corresponds to the international valuation standard in the assessment of the debt capital value of enterprises in our country, the capital is estimated at an unreasonably inflated price [1]. In addition, the lack of development of evaluation activities in our country and the lack of international standard approaches and methods of evaluation in the evaluation of the capital value of the enterprise, capitalization, discounted cash flows, capital market and the multiplier is an obstacle to using the method of coefficients.

Therefore, in 2017-2021, about the implementation of the strategy of action on the five priority directions of the development of the Republic of Uzbekistan in the "year of development of science, enlightenment and digital economy", it is stated that "the most advanced in determining the real market value of property in accordance with the principles of national evaluation standards and international evaluation standards" The task of introducing a single standard of evaluation based on foreign experience" was specified [2] . Based on this, we have devoted this article to the use of the valuation standard of developed countries and approaches to determining the value of debt capital of enterprises in our country.

LITERATURE REVIEW

Today, most of the world's economists, financial managers and analysts use different views on the methods of estimating the company's debt capital value. Also, the ongoing coronavirus pandemic is increasing the debt burden of joint-stock companies, making it difficult to find the value of debt capital. This, in turn, requires the joint-stock company to use modern methods in determining the value of corporate bonds in the debt capital and their real value in the future. In recent years, most of the world's economists and practitioners have conducted research on evaluating the value of debt capital of companies. In particular, according to the research of foreign economist Hayne Leland, it is necessary to determine the capital structure of these companies when determining the value of debt capital of companies. Therefore, the cost of debt capital affects the occurrence of default and bankruptcy symptoms of the company. Also, the researcher analyzed the structural structure of capital with the value of corporate debts of companies. In his opinion, when determining the value of long-term corporate debt, it is necessary to take into account the optimal capital structure, the company's risk, taxes, bankruptcy costs, contracts concluded on bonds. Also, the cost of debt capital and optimal leverage will depend on the company's risk, taxes, bankruptcy costs, interest rates, interest payments, and bond values. In particular, non-yielding bonds in a company's debt capital behave differently than yield bonds, and it has been argued that it sheds light on aspects of a company's asset swaps, debt repurchases, and debt restructurings [3] .

Foreign economists Ji Hye Kim, San Ho Leeb, and Yong Gyn Yua have shown in their scientific research that the real income of the company is considered the most important indicator in determining the value of debt capital. In particular, their research results showed that there is a correlation between the cost of debt capital and the real income of companies. Also, lending investors have found that companies in countries with developed debt markets receive more premiums for the risk of debt capital. In addition, in their research, they investigated the effect of the real income of companies not only on the US debt market, but also on the international bond market and debt capital markets [4] . In our opinion, there is a correlation between the real income of companies and the cost of debt capital, but debt capital in developed countries depends not on the income of companies, but on the rating of their bonds and the sovereign rating of countries. Also, the credit and bond ratings of companies are taken into account when evaluating the value of debt capital of companies.

According to the research of Antonio Mello and John Parsons, one of the foreign economists: "The capital structure and agency costs should be taken into account when evaluating the capital value of companies. Therefore, as a result of evaluating the value of the company's debt capital and determining the financial leverage, it indicates a change in the company's operating policy. Specifically, in the debt equity valuation model, agency costs determine the value of the company and its associated liabilities. Agency debt costs arise from the different interests of shareholders and debtors. Financial managements always protect and support shareholders. Therefore, they provide the shareholders with support in various ways to increase their income, which, in turn, makes the company's debtors unprofitable. Taking into account such a situation, the debtors take various preventive measures to avoid this by the executive directors of the company. Therefore, debtors can do so in order to protect themselves from losses by demanding a higher interest rate on the loan. Alternatively, the company's debtors impose restrictions on capital . " [5]

The assessment of the capital value of the joint-stock company and the determination of the structure of the capital structure also includes the assessment through the debt ratio. This point has been echoed by several economists, notably Todd Mitton. He stated in his scientific research that the needs of companies for loans are different and always changing. Also, as companies grow larger, their profitability decreases, and as a result, they use debt financing. In recent years, as many companies in developed countries have become larger, the use of debt capital has increased. At the same time, high debt rates in developing countries lead to an increase in the debt burden of companies. As companies grow, their optimal debt ratios also change. In addition, if the company does not have a supply of debt capital, it will cause the company's debt ratio and debt ratio to increase. This indicates that the company's financial leverage will increase and the country's sovereign rating will be affected. In companies, the dominant factors in the capital structure are production volume, profitability, assets and the company's growth potential, a system of indicators showing the optimal level of capital [6] . In addition, the practice of diversifying sources of debt in debt capital of joint-stock companies is widely used. However, almost no researchers have investigated the impact of debt diversification on equity capital. For this reason, one of the foreign economists, Nemiradja Djadiyappa and others, conducted scientific research on the influence of the company's debt capital on its value. According to them: "the practice of debt capital diversification of the company actually led to a decrease in the market value of the companies due to the fact that the loans received by the creditors were not used very efficiently" [7] . Also, diversifying companies' debt does not reduce financial constraints, but rather leads to more debt. This affects the agency costs and accounting performance of companies. In our view, increasing debt capital has a negative impact on company value, especially in rapidly developing countries and institutional conditions where companies are increasingly indebted.

Abdulaziz Y.Kh. According to Saif-Alyusfi's research, the company's level of debt capital is the most important indicators in determining marginal cost, marginal revenue and debt leverage. Also, the benefits of using debt leverage in raising debt capital for a company include deducting interest-related expenses from the taxable base and reducing the agency costs of capital resulting from lean funds. In particular, the increase in debt capital of companies leads to an increase in their cost of debt. This, in turn, indicates that the company will overextend its debt capital as a result of increased interest costs. Changes in the company's debt capital affect the capital structure. As a result, the proportional balance between private capital and debt capital is disturbed. Therefore, to implement an optimal capital structure, the tax benefits of marginal benefits are equal to the financial difficulties in marginal costs. The trade-off theory basically allows to determine the optimal level of debt capital of all companies. This theory does not take into account asymmetric information and agency costs, but determines the value of capital by taking into account the costs of debt capital with profit [8] .

In addition, according to foreign economists James Dow and Natalie Rossensky, companies increase the cost of capital by issuing bonds. As a result, the burden of debt capital increases in the distribution of capital. Therefore, there is a possibility of default, and the interest rate paid on the debt is compounded by a default premium. Also, it is necessary to determine the rate of attracting debt to the debt capital of companies and how much the cost of capital is. In addition, while determining the structure of the company's liabilities, it is necessary to address the risks associated with its assets. At the same time, researchers have shown that the expected return to debtors affects the capital cost of the campaign [9] .

Several methods are used to estimate the capital value of companies. Also, most analysts are making extensive use of the debt ratio in estimating the cost of debt capital. Studies have shown that 80% of large campaigns have demonstrated the implementation of a debt-to-value ratio [10]. In our opinion, it is appropriate to use coefficients that are widely used in the world, in particular, the cost of debt, the ratio of debt to private capital, leverage and debt ratios, when evaluating the value of debt capital of companies. The above coefficients reflect the value of debt capital and debt burden of companies.

According to Donald Depamfili, the cost of debt is the value of the debt incurred by the company. Also, the cost of debt reflects the current level of interest rates and the level of default risk from the perspective of investors. The interest that companies pay on debt is taxable, and in bankruptcy, the funds are paid out to bondholders because they are secured by the company's assets. Default risk is measured by the company's credit rating. In determining the value of debt capital, analysts use the debt-to-equity ratio and interest coverage ratios of each company to determine the pre-tax value of debt capital. Meanwhile, other analysts estimate the cost of debt capital using interest costs that equal the total amount of debt. Some analysts estimate the cost of debt capital by taking into account the average yield to maturity of the company's outstanding bonds [11]. According to research by Jonathan Burke and Peter DeMarzo, the rate of return expected by a company's creditors is a key indicator of the cost of debt capital. Due to the high share of bonds in the composition of debt capital, the cost of debt capital is calculated by determining the yield on bond redemption. However, the default risk associated with bond risk should be taken into account. Default risk serves to determine the income of debt capital and the expected income from it [12]. Also, high leverage ratios of companies cause their cost of capital to decrease. Therefore, companies will reduce their research and development, maintenance and marketing expenses to pay. Over-indebted companies lead to several financing difficulties, and tax breaks are not available because these companies are not profitable enough. In addition, high debt levels of companies lead to increased debt-related costs and limited investment opportunities. In practice, 10-15 percent of the debt capital cost is made up of tax credits. The default risk of companies is estimated at 5-15% of the value of debt capital [13].

Many of the local scholars have also expressed their views on the assessment of the value of the debt capital of the joint-stock company. B. Tashmurodova and S. Elmirzaeva have emphasized in their scientific works that one of the most important features of joint stock companies in determining the value of debt capital is the deduction of interest payments on debt funds from the taxable base and inclusion in the cost of production. Also, the factor that reduces the value of debt capital of joint-stock companies is called "tax protection". However, if the joint-stock company operates at a loss, the value of the debt capital does not change due to the fact that it is not possible to realistically assess the value of the debt capital without including financial costs [14]. According to the research of Karlibaeva Raya, it has been shown that as a result of effective attraction of debt capital in the capital structure of a joint-stock company, the current state of profitability of assets and the maximum level of profitability of private capital are ensured. Only, the value of the debt capital of the joint-stock company should be constant. Also, the weighted average value of capital shows the minimum level of debt capital of a joint-stock company and the maximum level of the value of private capital [15]. Local scientists U. Burkhanov and N. Khamadamov focused on joint-stock company's debt capital and evaluation methods in their research work. According to them: "financial leverage is the most important indicator in evaluating the debt capital of a joint-stock company, and this indicator recommends the use of debt funds by the joint-stock company, which affects the change in the efficiency ratio of private capital." Also, the indicator of financial leverage indicates the factors related to the emergence of debt funds that allow the joint-stock company to obtain additional profit for its private capital [16]. M. Eshov also conducted a study on the management of the fundamental value of the joint-stock company. According to him, it is necessary to pay attention to the value of debt capital when determining the internal value of a joint-stock company. Because debt capital directly affects intrinsic value. For this reason, he stated that the profitability indicators of joint-stock companies should be taken into account when evaluating the cost of debt capital [17].

Based on the opinion of the above foreign and local scientists, in our opinion, it is necessary to use modern valuation methods in determining the capital value of a joint-stock company. In particular, it would be appropriate to determine the value of debt capital using approaches and methods widely used in the world. If joint-stock companies have not issued bonds, then debt capital through cost of debt, debt to equity ratio, debt ratio, debt to asset ratio and leverage ratios it is necessary to use the methods of determining the value. The reason is that almost most of the joint-stock companies in our country did not issue corporate bonds, and debt capital forms debt

capital by attracting bank loans, which are an alternative to it. Therefore, debt capital can be determined using debt-related ratios in determining its value.

RESEARCH METHODOLOGY

of debt capital, the analysis was carried out using cost of debt, *debt to equity ratio*, debt ratio, *debt to asset ratio* and leverage ratios. In the scientific work, the following coefficients were analyzed when determining the debt capital of a joint-stock company:

$$\text{Debt ratio} = \frac{\text{total liability}}{\text{total assets}} \quad (1)$$

The debt ratio (*debt ratio*) determines the financial health of a joint-stock company, as well as the adequacy of assets to pay off debt capital in the event of bankruptcy, and information about the level of risk for investors. The optimal standard of this coefficient should be in the range of 0.6-0.7.

$$\frac{D}{E} \text{ ratio} = \frac{\text{total liability}}{\text{total capital}} \quad (2)$$

Book- to-equity ratio shows the share of debt capital in relation to equity capital of a joint-stock company. The optimal value of this coefficient should be equal to 1. Then it balances debt capital with private capital. In addition, this ratio serves to determine the capital structure of the joint-stock company.

$$\text{cost of debt} = \text{interest expense} (1 - \text{tax rate}) \quad (3)$$

Cost of debt - this is the minimum income level of the risk accepted by the debtor. It is also the interest rate paid on the current obligations of the joint-stock company to creditors and debtors.

$$\text{Capitalization ratio} = \frac{\text{Long-term debt}}{(\text{long-term debt} + \text{shareholders' equity})} \quad (4)$$

Capitalization ratio is also called the financial leverage ratio. This ratio determines the share of the joint-stock company's total debt in its total capital. The norm of this coefficient should be equal to 1.

ANALYSIS AND RESULTS

Large joint-stock companies operating in our country were selected and analyzed in the research work. In this scientific work, the debt capital assessment approach and methods of developed countries were used to assess the value of debt capital of joint-stock companies. In particular, it provides an opportunity to determine the debt capital of a joint-stock company using the *debt ratio*, *debt to equity ratio*, *capitalization ratio* and *cost of debt* indicators. The financial situation of JSC "Kizilkumtsement" JSC, "Koqon Mechanics Plant", JSC "Kvarts", JSC "Jizzakh Plastik" JSC and "Kuvasaitsement" JSC, which are the selected joint-stock companies, are stable, and the dynamics of income and profit show a growing trend. However, in the last year, we can see that the JSC "Kokan Mechanics Plant" ended the year with a loss (Table 1).

Table 1. Analysis of financial indicators of "Kokon Mechanics Plant" JSC¹

No	Indicators	2014	2015	2016	2017	2018	2019
" Kokan Mechanical Plant" JSC							
1	Product net income from sales (in billion soums)	47	52	59	84	80	31
2	Net profit (in billion soums)	9	8.3	8.3	8.3	5.7	(7.5)
3	Assets (in billion soums)	36	50	69	100	95	89
4	Obligations (in billion soums)	3	11	27	55	52	57
5	Capital (in billion soums)	34	39	42	45	43	31

According to the data in Table 1, the net income of the joint-stock company "Kokon Mechanical Plant" from the sale of products in 2014 was 47 billion. amounted to 51.1% by 2019. Also, the

¹<https://kmz.uz/> site information was prepared by the author.

net profit of the company was 9 billion soms in 2014, and (7.5) billion soms in 2019. completed the financial statement with a loss of soum. The consumers of the products produced by JSC "Kokon Mechanical Plant" are state organizations "Uzbekneftegaz" JSC, JSC "Uztransgaz", JSC "Uzkimyosanoat", JSC "Uzpakhtasanoat", JSC "Uzdonmakhsulot", JSC "Uzspirtsanoat" JSC, and "Uzbekistan food industry". are food industries. For this reason, among the Makur enterprises, a large amount of receivables arose in "Ko'kan Mechanics Plant" JSC, which led to a decrease in income from product sales. As a result, the expenses of the joint-stock company increased, which led to the end of the financial year with a loss in 2019. In addition, in 2014, the assets of JSC "Kokon Mechanical Plant" were 36 billion which was soums, shows that in 2019 the company's assets increased by 2.5 times. However, the obligations of the society in 2014 3 billion amounted to soums, and in 2019, the obligations of the society increased by 19 times. As a result of increasing the obligations of "Kokon Mechanical Plant" JSC over the years, the company's capital in 2014 was 34 billion. 3 billion soums in 2019. shows that it has decreased to soum. The analysis of indicators showing the financial status of "Kyzilkumtsement" JSC, "Kvarts" JSC, "Jizzakh plastic" JSC and "Kuvaitsement" JSC selected in the research is reflected in Table 2.

Table 2. Analysis of the financial status of joint-stock companies²

No	Indicators	2014	2015	2016	2017	2018	2019
" Kyzilkumtsement " JSC							
1	Product net income from sales (in billion soums)	870	758	1013	1121	1660	1682
2	Net profit (in billion soums)	17	10	65	49	338	274
3	Assets (in billion soums)	1009.1	1068.1	1136.3	1209.8	1551.3	1736.8
4	Obligations (in billion soums)	89.3	198.3	172.5	249.1	138.4	70.9
5	Capital (in billion soums)	919.8	869.7	963.7	960.7	1412.9	1665.8
"Quartz" JSC							
1	Product net income from sales (in billion soums)	139	161	229	299	229.6	246
2	Net profit (in billion soums)	25	31	56	88	82	20
3	Assets (in billion soums)	102.7	119.3	185.1	270.4	318.5	493.7
4	Obligations (in billion soums)	9	14	22	42	12	123
5	Capital (in billion soums)	103	112	162	228	302	337
" Jizzakh plastic" JSC							
1	Product net income from sales (in billion soums)	8.7	12.5	21.8	36.3	38.6	29.8
2	Net profit (in billion soums)	0.4	0.5	1.3	11.9	6.7	3.5
3	Assets (in billion soums)	18.1	21.4	17.3	30.4	46.9	63.2
4	Obligations (in billion soums)	16.3	19	13.7	12.6	11.5	23.0
5	Capital (in billion soums)	1.7	2.3	3.5	17.7	35.3	40.2
" Kuvaitsement " JSC							
1	Product net income from sales (in billion soums)	268	238	296	305	424	454.0
2	Net profit (in billion soums)	59	51	55	41	34	64.0
3	Assets (in billion soums)	251	277	274	248	349	339.0
4	Obligations (in billion soums)	29.2	62.7	60.3	55.7	59.2	18.5
5	Capital (in billion soums)	222	214	214.4	196	292	320.0

The data in Table 2 shows that the net revenue of Kizilkumtsement JSC from product sales in 2014 was 870 billion. if it was soum, in 2019 it almost doubled. The net profit of the company increased 16 times in 2019 compared to 2014. This, in turn, will be a source of increasing dividend payments in relation to the net profit of the joint-stock company. Regarding the obligations of "Kyzilkumtsement" JSC, there is a tendency to decrease over the years. Its assets show a growing trend from year to year. The company's capital in 2014 was 919.8 billion. in the value of soums, in 2019 1665.8 bln. soum. The analysis of the financial indicators of Kizilkumtsement JSC shows that the state of the company is stable and the investment attractiveness is considered high. In 2019, all long-term debts of Kizilkumtsement JSC amounted to 60 billion. paid more than soums, and also increased its capital by 15%. This, in turn, has a

²<https://qizilkumsement.uz/>, <https://kvarts.uz/>, <https://jizplast.uz/> and <http://kuvaitsement.uz> site information is prepared by the author

positive effect on the growth of the future cash flows of the society. In addition, the tax payments of the society are also decreasing.

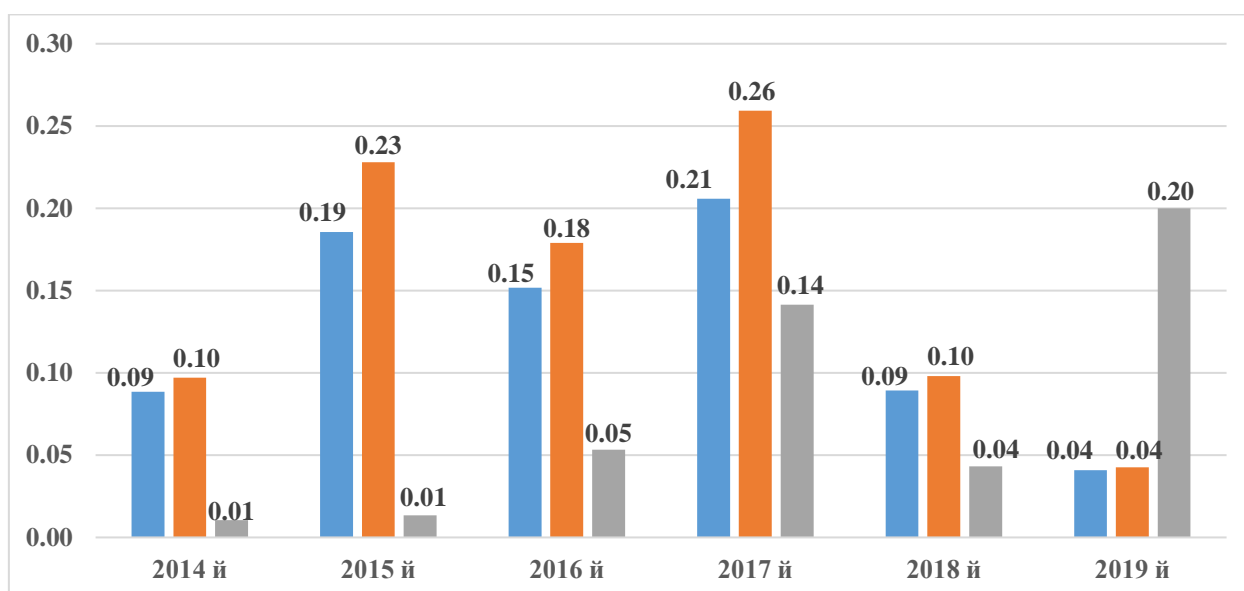
The analysis of Kvarts JSC shows that in 2014, the net income from product sales was 139 billion. amounted to 79.6% in 2019. The net profit in 2014 was 25 billion. 5 billion soums in 2019. decreased to soum. Its assets are growing year by year. In 2014, the company's assets amounted to 102.7 billion. if it was soum, by 2019 it will be 493.7 billion. amounted to soum. The decrease in the net assets of "Kvarts" JSC was caused by a sharp increase in the company's liabilities. Obligations in 2014 amounted to 9 billion. amounted to soum, we can see that in 2019 it increased by almost 14 times. However, the number of joint-stock companies increased by 3 times in 2019 compared to 2014. When we analyzed the price of the products of "Quartz" JSC, in 2019, the price of glass on the commodity exchange decreased significantly. As a result, the company decided not to sell the product at a reduced price. Therefore, the company's assets increased by 55% in 2019 compared to 2018. However, unsold products caused production costs to decrease by 60% and net profit to decrease by 4 times in 2019 compared to 2018. It is worth noting that the drop in the price of glass on the raw material exchange affected the financial indicators of JSC "Kvarts" and the income from the sale of products, causing a sharp decrease in the company's profit.

According to the analysis of "Jizzakh plastic" JSC, in 2014 the company's net income from product sales was 8.7 billion. amounted to 29.8 billion soums in 2019. amounted to soum. As for the net profit, in 2014 0.4 bln. amounted to soum, in 2019 it increased by 7 times. In 2019, the value of assets increased significantly, especially in 2014 by 18.1 billion. soums in value, in 2019 it was 63.2 billion. was soum. Along with the increase in the value of assets, the company's capital also increased by almost 24 times during the analyzed period. The liabilities of "Jizzakh plastic" JSC also show an increasing trend from year to year. 16.3 billion in 2014. amounted to 41.1% in 2018. Most of the indicators of "Jizzakh plastic" JSC in the last year show a downward trend. It can be concluded that the increase in the company's obligations leads to a decrease in net profit.

If we pay attention to the net income of "Kuwasitesement" JSC from product sales, in 2014 it was 268 bln. if it was soum, it can be seen that it increased by 69.4% in 2019. Also, the net income increased by 8.4% in 2019 compared to 2014. If we look at the assets, in 2014, 251 billion. reached 88 billion soums in 2019. increased to soums. The capital of the society during the period under analysis is 222 billion. 320 billion soums. increased to soum. Capital growth of JSC "Kuwasitesement" is a factor that positively characterizes the dynamics of the financial situation. Analyzing the indicators of Kuvasitesement JSC, it can be concluded that the investment attractiveness of the society is very high. The reason is that the company's net income from product sales has increased by 20 percent in the last five years. Operating profit increased by 88%, assets by 34.7% and capital by 9.5%.

The above analysis of the financial indicators of joint-stock companies showed that the financial condition of all joint-stock companies was considered stable. Taking this into account, we determine the value of debt capital of these joint-stock companies using modern methods and approaches. First of all, the analysis of the state of debt ratios of "Kyzilkumtsement" JSC from the companies selected in the study is presented in Figure 3.

Figure 3. Analysis of debt ratios of "Kyzilkumtsement" JSC³



Analysis of Figure 3 shows that the debt ratio of Kizilkumtsement JSC was 0.9 in 2014, and 0.04 in 2019. This means that 9% of the total capital was formed by attracting debt capital. The rest is made up of own capital. In 2019, the share of debt capital decreased, in particular, 4 percent of the total capital is the share of debt capital. This indicator should be less than the acceptable standard value of 0.6-0.7. The ratio of loan portfolio assets of "Kyzilkumtsement" JSC shows that it is almost zero. This, in turn, indicates that the joint-stock company is very careful to attract debt capital. The D/E (Financial Leverage) ratio was 0.10 in 2014 and decreased to 0.04 in 2019. This ratio shows the ratio of debt capital to private capital. In particular, this ratio makes it possible to determine the proportion of private capital with debt capital. The optimal standard of this coefficient should be in the range of 0.43-1. In particular, the maximum value of the coefficient is 1.5. The D/E ratio of the company we are analyzing in 2019 shows the optimal value. The capital of the joint-stock company consists of 4% debt capital and 96% private capital. It is recommended that the share of debt capital in the total capital of "Kyzilkumtsement" JSC does not exceed 43 percent. The capitalization ratio was 0.01 in 2014 and 0.20 in 2019. 20 percent of long-term capital is being attracted in the formation of the society's capital.

The analysis of debt ratios of "Kokon Mechanical Plant" JSC is presented in Table 3.

Table 3. Analysis of debt ratios of "Kokan Mechanics Plant" JSC⁴

No	Indicators	2014	2015	2016	2017	2018	2019
" Kokan Mechanical Plant" JSC							
1	Debt coefficient	0.08	0.22	0.39	0.55	0.55	0.64
2	D/ E coefficient	0.09	0.28	0.64	1.22	1.21	1.84
3	Capitalization ratio	0.01	0.02	0.01	0.01	0.10	-

From the data in Table 3, it can be seen that in 2014, the debt ratio of JSC "Koqon Mechanics Plant" was 0.08, but by 2019 it had reached 0.64. It can be seen that 64% of the company's assets were formed through debt in recent years. According to researchers and analysts, the maximum value of the debt ratio should be equal to 0.6. In our case, it exceeded the optimal standard. The D/E ratio was 0.09 in 2014 and 1.84 in 2019. This coefficient should be within the optimal standard value of 0.43-1. However, in our case it is above the optimal norm. This means that debt capital is 84 percent of total capital. The remaining 16 percent was formed from private capital. Therefore, debt capital is the main part of the company's capital. This is a good situation for the society, because it indicates that the ability to pay the debt does not exist. The

³ <https://qizilqumsement.uz/> site data base prepared by the author

⁴ The basis of <https://kmz.uz/> site information was prepared by the author

capitalization ratio was 0.01 in 2014 and zero in 2019. This shows that "Kokon Mechanical Plant" JSC does not involve long-term debt in forming its capital.

JSC, "Jizzakh plastic" JSC and The analysis of debt ratios of "Kuwasitesement" JSC is presented in Table 4

Table 4. Analysis of debt ratios of joint-stock companies⁵

No	Indicators	2014	2015	2016	2017	2018	2019
"Quartz" JSC							
1	Debt coefficient	0.09	0.12	0.12	0.16	0.04	0.25
2	D/ E coefficient	0.09	0.13	0.14	0.18	0.04	0.36
3	Capitalization ratio	0.07	0.08	0.07	0.08	0.04	0.09
" Jizzakh plastic" JSC							
1	Debt coefficient	0.90	0.89	0.79	0.41	0.25	0.36
2	D/ E coefficient	9.59	8.26	3.91	0.71	0.33	0.57
3	Capitalization ratio	0.81	0.82	0.74	0.29	0.16	0.26
" Kuvasaitsement " JSC							
1	Debt coefficient	0.12	0.23	0.22	0.22	0.17	0.05
2	D/ E coefficient	0.13	0.29	0.28	0.28	0.20	0.06
3	Capitalization ratio	0.12	-	-	0.05	0.42	0.40

The analysis of the data in Table 4 shows that the debt ratio of JSC "Quartz" was 0.09 in 2014, and by 2019 it reached 0.25. In particular, "Jizzakh plastic" JSC decreased in 2019 compared to 2014 and was 0.36. The debt ratio of Kuvasitesement JSC has a decreasing trend. In 2014, it was 0.12, and in 2019 it reached 0.05. According to the analysis, 36% of the total assets of "Jizzakh plastic" JSC were formed from debt capital, "Kvarts" JSC - 25% from debt capital, and only 5% of "Kuvasaytsement" JSC was formed by attracting debt capital, in particular, loans.

The D/E ratio of JSC "Quartz" was 0.09 in 2014, and it was equal to 0.36 in 2019. In 2018, compared to 2014, JSC "Jizzakh plastic" decreased by almost 17 times. In 2014, the D/E ratio of "Kuwasitesement" JSC was equal to 0.13, and in 2018 it was 0.06. According to the analysis, 36% of the total capital of "Kvartz" JSC is debt capital, and the remaining 64% is formed from private capital. 57 percent of the capital of "Jizzakh plastic" JSC is debt capital, 43 percent is private capital. Kuvasitesement JSC has 6% debt capital and 94% private capital. In practice, a maximum of 43 percent of total capital should be made up of debt capital. In our study, the debt capital of JSC "Jizzakh plastic" is the highest private capital. The main part of its capital consists of debt capital. This, in turn, indicates that the state of the society is not good and its financial indicators are not stable.

Analysis of debt capital value of joint stock companies selected in our research is reflected in Table 5.

Table 5. Analysis of the state of debt capital value of joint-stock companies⁶

Indicators	2014	2015	2016	2017	2018	2019
" Kyzilkumtsement " JSC (thousand in soums)	569326	384 936	6565802	1662768	3093619	927130
" Kokan Mechanical Plant" JSC (thousand in soums)	188059	9491	124585	24224	47.50	248990
"Quartz" JSC (thousand in soums)	-	-	58266	902588	434410	361326

⁵ <https://kvarts.uz/> , <https://jizplast.uz/> and <http://kuvasaycement.uz> site data base prepared by the author

⁶ <https://qizilqumsement.uz/> , <https://kmz.uz/> , <https://kvarts.uz/> , <https://jizplast.uz/> and <http://kuvasaycement.uz> sites based on information prepared by the author

" Jizzakh plastic" JSC (thousand in soums)	106103	225992	516682	404622	466783	1082632
" Kuvasitesement " JSC (thousand in soums)	-	-	-	-	772210	447663

The data of Table 5 shows that the value of debt capital of Kizilkumtsement JSC was 569,326 thousand soums in 2014, and by 2018 it has increased by 62.8%. In 2014, the value of "Koqon Mechanics Plant" JSC was 188,059 thousand soums, and in 2019 it was 248,990 thousand soums. In 2014, "Kvarts" JSC had no credit at all, so its debt capital value was zero. In 2019, the value of debt capital was 316,326 thousand soums. In 2014, "Jizzakh plastic" JSC had a debt capital of 106,103 thousand soums, and in 2019, it had a value of 1,082,632 thousand soums. In 2014, JSC "Kuvasitesement" also has a debt capital value. However, in 2019, the value of debt capital is 447,663 thousand soums. It should be noted that "Jizzakh Plastics" JSC, which attracted the highest amount of debt in the analyzed joint-stock company, is JSC. Due to the increase in the value of debt capital of joint-stock companies from year to year, all of them have formed loan portfolios. Therefore, an increase in the value of debt capital indicates an increase in the value of credit.

In conclusion, it can be emphasized that the joint stock companies selected in the research are all engaged in production activities. However, the value of the debt capital of "Jizzakh Plastics" JSC and "Koqon Mechanics Plant" JSC has a tendency to grow from year to year. Therefore, these joint-stock companies operate by attracting debt. In addition, it was found that debt capital is higher than private capital. Also, high debt capital indicates that the state of the joint-stock company is unstable and its financial indicators are not stable. Therefore, it is necessary to implement complex measures to reduce debt capital to joint-stock companies.

CONCLUSIONS AND SUGGESTIONS

In conclusion, we emphasize that it is necessary to use the methods and approaches of developed countries in assessing the value of debt capital of joint stock companies in our country. Unfortunately, valuation organizations and analysts in our country do not use the method of developed countries when determining the value of debt capital. The main reason for this is the lack of development of the debt market in our country. There are the following problems in using the method and approaches of developed countries in assessing the value of debt capital of joint-stock companies:

First, the debt market in our country has not yet developed. Because many joint-stock companies prefer to raise debt through banks instead of raising debt through corporate bonds. Since then, it has led to a number of difficulties in using the methods of developed countries in assessing the value of debt capital.

Secondly, the high share of debt capital and the low share of private capital in the capital of joint-stock companies in our country indicates the high level of risk of the joint-stock company. This, in turn, leads to a significant reduction in the movement of private capital to the joint-stock company.

Thirdly, risks should be taken into account when determining the value of debt capital of joint-stock companies. It is also necessary to determine the optimal value of debt capital in the capital structure. The main reason for this is that debt securities are not available as a substitute for credit. Therefore, it is appropriate to use financial instruments to attract debt to joint-stock companies. To eliminate the above problems, it is advisable to implement the following measures:

First of all, it is necessary to develop complex measures for the development of the capital market and the debt market in our country. This, in turn, involves joint-stock companies in the formation of capital by issuing corporate bonds. Also, debt capital provides an opportunity to use modern methods and approaches in valuation.

Secondly, it is necessary to ensure the standard level of private capital in the capital of joint-stock companies. The reason is that if the standard is not met, it can lead to bankruptcy of the joint-stock company. In addition, it is appropriate to compare the optimal ratio of debt capital to 40 percent of the capital of joint-stock companies. In particular, the risk of default in debt capital should be taken into account. The detection of default risk allows to identify the signs of bankruptcy of the joint-stock company.

Thirdly, it is necessary to revise the requirements for issuing corporate bonds issued by joint-stock companies. Despite the simplification of the requirements, the analyzed joint stock companies have not yet issued a single bond. Also, in the assessment of debt capital, only the value of the loan was assessed, but debt ratios, which are widely used in developed countries, are not used. Therefore, the use of debt ratios in determining the capital value of a joint-stock company in our country provides an opportunity to accurately assess the capital value.

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