

CHARACTERISTICS OF INDICATORS IN PRIVATE CAPITAL VALUATION OF JOINT STOCK COMPANIES IN UZBEKISTAN

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Article Info	ABSTRACT
<p>Article history: Received Jul 15, 2024 Revised Jul 25, 2024 Accepted Aug 05, 2024</p> <p>Keywords: joint stock company; capital cost; cash flow; asset value; cost of private equity; return on capital; operating profit; investment</p>	<p>in the article, the indicators that affect the assessment of the capital value of the joint-stock company are analyzed based on the value of the calculated assets, private capital values from 2015 to 2019. In particular, the main attention is paid to the factors affecting the capital value of joint-stock companies in our country "Kizilkumtsement", "Uzmetkombinat", "Kokon Mechanical Plant" and "Kvarts". Also, the analysis of operating profit after tax NOPLAT and margin NOPLAT indicators of these joint stock companies and return on invested capital (ROIC) coefficients is presented. In turn, existing problems in the evaluation of the capital value of the joint-stock company were identified and scientific proposals and practical recommendations aimed at their elimination were developed</p> <p style="text-align: right;">This is an open-access article under the CC-BY 4.0 license.</p> 

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INTRODUCTION

Today, companies making large investments in the world are using different methods to evaluate their capital. The capital cost of the company gives an opportunity to determine its future business value. In developed countries, asset-based valuation using fundamental analysis, discounted cash flow method, and relative valuation methods are used to value companies. In turn, the use of discounted cash flow methods provides an opportunity to determine future cash flows and investment opportunities and business value of the enterprise. One of the main problems today is the use of the discounted cash flow method to determine the market value of the company's shares in the primary and secondary mass sale of the stock packages of joint-stock companies and the determination of the capital value of these companies. This, in turn, demonstrates the need to use the method of optimal discounted cash flows in determining the capital value of joint-stock companies in our country.

In developed countries, capital valuation is done using the discounted cash flow method to determine the capital value of companies. This, in turn, is a system of indicators

that shows the expected future cash flows from the company's assets and the value of the business. However, it still does not use discounted cash flow methods when assessing the capital value of joint-stock companies in our country, does not use the indicators of the modern corporate financial system, when assessing the capital the fact that they do not use the methods of fundamental evaluation (discounted dividend, residual profit, uneven growth of profit) shows that there are several problems in evaluating the capital value of joint-stock companies in our country.

Literature review

In the evaluation of the private capital of joint-stock companies, traditional methods are mainly used to determine the fair value of their shares, in particular, traditional methods such as market value and income estimation approaches. Also, the value of private equity is estimated by determining the latest financial indicators based on economic profit, economic value added and market value added. Today, most economists and analysts emphasize that the balance sheet values of financial statements do not always reflect the true financial indicators. Therefore, the use of the present value of expected cash flows is widely used in the assessment of private and capital value in joint-stock companies in developed countries. In particular, the methodology of discounted cash flows is used in the evaluation of capital projects. To estimate the fair value of the private capital of joint-stock companies, it is considered appropriate to use the income valuation methodology (B. Knapová, T. Krabec and J. Roubíčková, 2011). Also, discounted cash flow models serve to determine the internal value of the private capital of a joint-stock company and are based on the principle of calculating the expected future cash flows from private capital through the present value (P. Kogler, T. Krabec, 2012).

Discounted cash flow is a consideration of the intrinsic value of each asset and its valuation. However, the fact that there is still no method of calculating the internal value of the asset in the assessment of the value of private capital indicates that there are problems in the assessment of the value of private capital (A. Damodaran, 2001). In general, the discounted cash flow method is the best way to estimate the value of joint stock companies and the value of private equity (JP Russell, 2007). The discounted cash flow method estimates the weighted average of capital and has fewer options for determining the terminal value. This is because small changes have a significant impact on the bottom line of the company. Therefore, practitioners and analysts can easily manipulate the discounted cash flow method to achieve the desired result. In addition, a great deal of information is required to determine the company's future cash flows, growth rates, and discount rates. Therefore, the method of discounted cash flows is used cautiously in evaluating the company's private capital (A. Damodaran, 2005).

Currently, there are two options for discounting cash flows. The first is the valuation of the entire business, which in turn represents the discounted cash flow for the joint stock company. This approach is based on the company's free cash flows and provides creditors and shareholders with a discount rate that reflects cash flows and all

sources of funding for the company's operations. The second is to determine the stake in the business. When assessing the value of capital, the assessment is carried out taking into account the discount rate (D. Dluhosova, 2005).

Most researchers and practitioners in the world estimate the intrinsic value of private equity of companies through the method of discounted cash flows. In particular, according to Shradhanjali Panda's research, one of the foreign economists: "conducted a study of the relationship between capital's free cash flows and market value in five different industrial enterprises, and based on the hypothesis, he showed in his research that there is no relationship between capital's free cash flows and market value" (Shradhanjali Panda, 2013). Capitalization of cash flows, discounting of future income and cash flows are taken into account in the methods of assessing the capital of joint-stock companies. McKinsey's equity valuation method suggests that the mismatch between past and future operations based on discounting future cash flows is the best valuation method for an enterprise. From a mathematical point of view, it is understood that today's value is related to the risks associated with the company and the discount rate with future planned investment returns. According to the research of the foreign scholar Rich: "High risk indicates a high discount rate, thus leading to a low valuation of capital" (Rich, A, 2008). In our opinion, from an economic point of view, the discount rate is considered the "opportunity cost" and is the rate of return expected by making an alternative investment instead of another investment with the same risk characteristics as the trade-off.

The assessment of capital value of joint-stock companies is carried out based on the theory of finance and accounting. According to the theory, most capital value estimations use discounted cash flow and residual income estimation models. Therefore, the world practitioners in determining the value of the private capital of the joint-stock company are evaluated through multiplier coefficients, because this evaluation method is used instead of sophisticated evaluation techniques (Lie, E., Lie, HJ, 2002.). The evaluation of capital value through these multiplier coefficients is reflected in the reports of most joint-stock companies and investment banks. Multiplier coefficients are also used to evaluate corporate transactions. In fact, practitioners using sophisticated valuation techniques use multiplier coefficients to estimate terminal value and verify its reliability (Bhojraj, S., Lee, CMC, 2002).

In our opinion, the main reason for the popularity of estimation using multiplier coefficients is the simplicity of their calculation. Multiplier coefficients study the ratio of the change in the market value of the share to the income of the joint-stock company. In the evaluation of the capital value of a joint-stock company, using this method, it is determined by the market value of the corporate operations of the companies of the same type. Therefore, the multiplier refers to the market value when evaluating through coefficients, and is also referred to as a market-based valuation method. According to the research of foreign economists Demirakos Strong and Walker: "67% of the world's actuaries and analysts used multiplier coefficients, 16% discounted cash flows, 10%

estimated residual income and 7% used other methods to estimate the capital value of the joint stock company" (Demirakos, Strong & Walker, 2004).

According to the scientific work of foreign economist Parakkal Nirmal Kumar and others, only free cash flows for the company are taken into account when evaluating the internal value of the private capital of a joint-stock company using the discounted cash flow method. It also determined internal value of capital, weighted average value of capital, risk premium, beta coefficient and rate of return on risk-free assets through the method of free cash flows. According to him, the shares of the joint-stock company are overvalued, and therefore, it is necessary to sell these shares (Parakkal Nirmal Kumar, Vishal Mohan & Alwin Paul Jose 2018). In addition, according to the study of Ivanovskaya et al.: "the value of shares calculated using the discounted cash flow method is very close to the average market value, so the discounted cash flow method is considered a reliable method for calculating the enterprise value in the long term. This, in turn, helps investors predict stock prices and make investment decisions." Ivanovska, Nadica, Zoran Ivanovski, and Zoran Narasanov, 2014). In their view, it is appropriate to take into account liquidity, profitability and leverage financial coefficients in the management of free cash flows of a joint-stock company.

METHODS

In the study, JSCs "Kyzilkumtsement", "Uzmetkombinat", "Koqon Mechanical Plant" and "Kvarts" were selected from joint-stock companies in our country, and their assets value, private capital value, return on capital invested, operating profit after tax (NOPLAT) were analyzed. Also, the data is compiled on the basis of reports of joint-stock companies. Operating profit after tax (NOPLAT) of joint-stock companies is determined as follows:

NOPLAT = Operation profit (loss)- income tax +(paid interest × (1- income tax rate))

$$\text{Маржа NOPLAT} = \frac{\text{NOPLAT}}{\text{Маҳсулот сотишдан тушган тушум}}$$

In the scientific work, the return on invested capital (ROIC) of joint-stock companies was determined by the formula.

$$\text{ROIC} = \frac{\text{NOPLAT}}{\text{Узок муддатли кредит + хусусий капитал}}$$

RESULT AND DISCUSSION

The indicators of large joint-stock companies operating in our country were analyzed in the research work. In particular, JSCs "Kizilkumtsement", "Uzmetkombinat", "Koqon Mechanics Plant" and "Kvarts" are divided into joint-stock companies using the coefficients of asset value, private equity value, operating profit after tax (NOPLAT), margin NOPLAT and return on invested capital (ROIC). capital cost estimation options are shown.

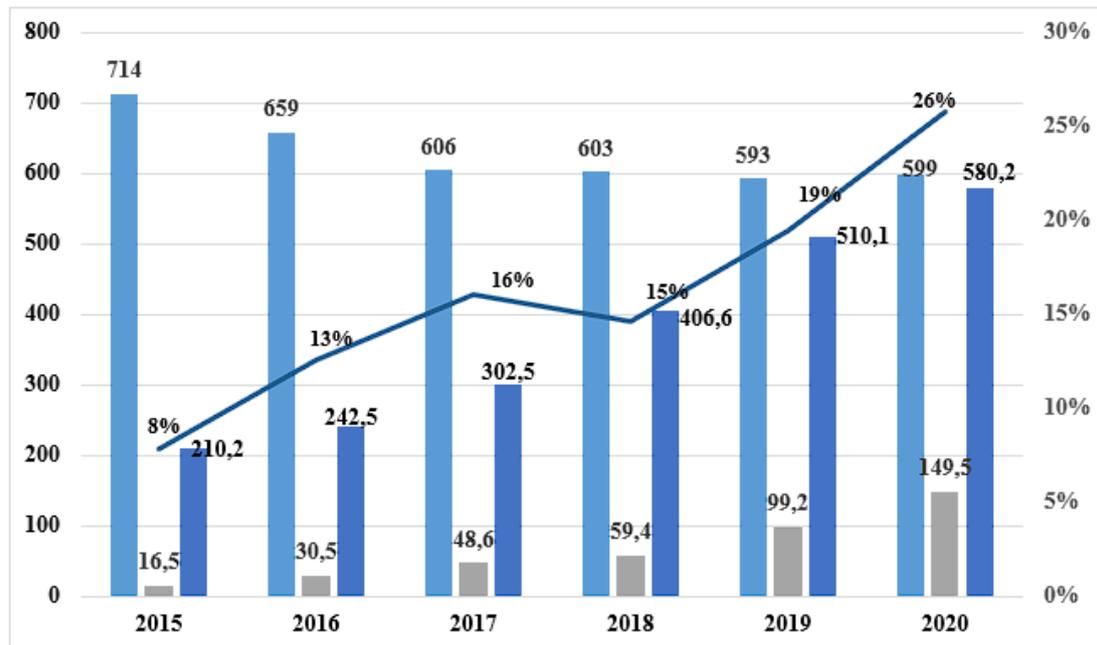


Figure 1. Weight of capital value of joint-stock companies in Uzbekistan in GDP

Based on the analysis of the data in Figure 1, in 2015, the number of joint-stock companies in our country was 714, and in 2019, it was 599. Also, the nominal value of securities of joint-stock companies was 16.5 trillion soums in 2015, and reached 149.5 trillion soums in 2019. In particular, it indicates that the capital value of joint-stock companies has increased almost 9 times. The analysis of the ratio of capital value of the joint stock company to GDP shows that in 2015, the capital value of the company was 8 percent compared to GDP, and in 2019, it was 26 percent. This, in turn, indicates that joint-stock companies in our country issue securities every year. However, in our view, the nominal value of the share does not reflect the true market value of private equity. One of the factors that cause the tendency of joint-stock companies to decrease over the years is that according to the decree of the President of the Republic of Uzbekistan No. PF-4720 of April 24, 2015 "On measures to introduce modern corporate management methods in joint-stock companies", the activities of several joint-stock companies were completed and organizational legal form has been changed. In conclusion, it can be said that the capital value of joint-stock company in our country is almost low in GDP. Compared to developed countries, it is higher than GDP. This indicates that there are several shortcomings in determining the true value of the capital stock in our country. Based on the above analysis, the biggest JSCs "Kizilkumtsement", "Uzmetkombinat", "Ko'kan Mechanical Plant" and "Kvarts", whose shares are always freely traded on the stock market, were considered the research object. Before determining the capital value

of these joint-stock companies, the value of assets affecting the capital was analyzed (Figure 2).

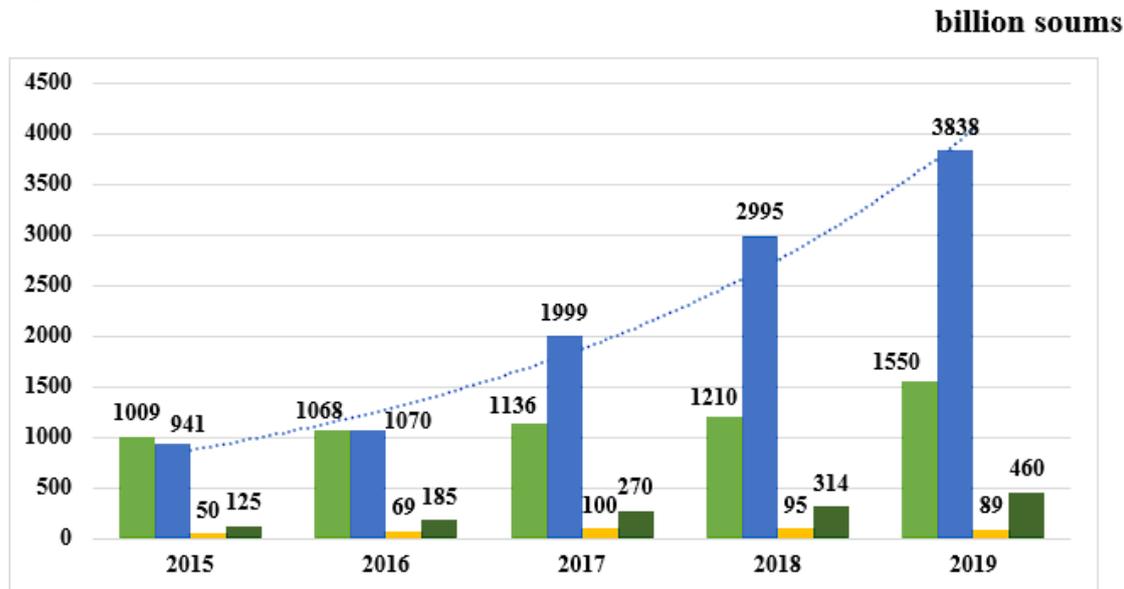


Figure 2. Dynamics of assets of joint-stock companies
(2015-2019) years

The data in Figure 2 shows that the value of assets of Uzmetkombinat JSC was 941 billion soums, and in 2015 it increased by 4 times. The main reason for this is that the society's rolled metal production increased by 1.4 times in 2017 and 2018. Also, the export of product production increased by 1.32 times. In 2015, the value of assets of Kizilkumtsement JSC amounted to 1,009 billion soums, and in 2019, we can see that it increased by 65%. The reason is that the high demand for cement in our country affects the growth of assets of the joint-stock company. Also, regardless of changes in market conditions, the company's production of cement products is growing. The value of the assets of Kverts JSC was 125 billion soums in 2015, and 460 billion soums in 2019. The reason for this is that in 2019, the prices of bottles fell significantly compared to 2018, and as a result, the company decided not to sell its products at a reduced price. This, in turn, led to a 52 percent increase in the company's current assets, as well as a 10 percent increase in sales price. At the same time, the company's income from product sales increased by 24% on average. We can see that the value of the assets of "Kokon Mechanical Plant" JSC was 50 billion soums in 2015, and it increased by 78% in 2019. However, the value of the company's assets amounted to 95 billion soums in 2018, and decreased to 6 billion soums in 2019. The main reason for this is that the company's income from the sale of products fell from 80 billion soums to 31 billion soums. In conclusion, it can be said that the products of joint-stock companies producing in the field of construction, in particular, the products of JSC "Kyzilkumtsement" and "Kverts" are in high demand in the market. This, in turn, leads to an increase in income from the sale of

products, as well as an increase in assets. In addition, the price of non-ferrous metals in the market is considered to increase the value of the assets of "Uzmetkombinat" JSC over the years.

The cost of capital of joint-stock companies is also influenced by the cost of private capital. Therefore, the private capital value of JSCs "Kyzilkumtsement", "Uzmetkombinat", "Kokan Mechanical Plant" and "Kvarts" was analyzed (Figure 3).

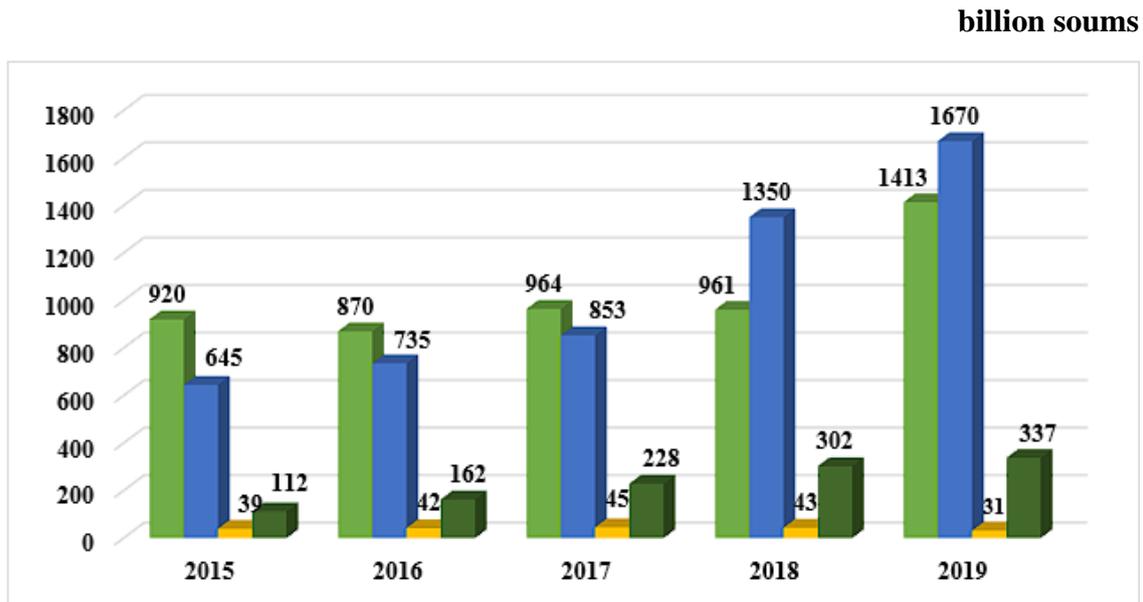


Figure 3. Dynamics of private capital of joint-stock companies (2015-2019) years

The data of Figure 3 shows that the value of private capital of JSC "Uzmetkombinat" was 645 billion soums in 2015 and increased to 1025 billion soums in 2019. The main reason for the increase in the value of the company's private capital can be explained by the fact that its net profit increased almost 11 times in 2015-2019. In 2015, the value of private capital of Kizilkumtsement JSC amounted to 920,645 billion soums, and in 2019, it increased by 81%. The reason for this is that the joint-stock company increased its private capital by 15% in 2019 as a result of extinguishing its total long-term debts of 60 billion soums. In 2015, the value of the private capital of "Kvarts" JSC was 112 billion soums, and in 2019, it increased by 3 times. For the construction of the new line of the joint-stock company, funds from "Asakabank" in the amount of 41.5 million US dollars and the company's own funds in the amount of 28.7 million US dollars were attracted. These received funds reduced the net profit and profitability of the enterprise. In 2015, the private capital value of "Koqon Mechanics Plant" JSC was 39 billion soums, and by 2019 it decreased to 8 billion soums. As a result of the decrease in the gross profit of the joint-stock company, operational costs were not covered. As a result, private capital increased by 27.8%.

The most important metric that affects equity is operating profit (margin) after tax (NOPLAT). This indicator of a joint-stock company directly affects the increase in the value of private capital. Therefore, this indicator was analyzed in our scientific work (Table 1).

Dynamics of post-tax operating profit (margin) (NOPLAT) of joint-stock companies
(2015-2019) years

(in percent)

	" Kyzilkumtsement " JSC	" Uzmetkombinat " JSC	" Kokan Mechanical Plant" JSC	"Quartz" JSC
2015	18%	4%	18%	12%
2016	1%	8%	14%	26%
2017	7%	15%	10%	33%
2018	5%	12%	7%	22%
2019	19%	10%	-1%	2%

Table 1 shows that the indicator of operating profit after tax of JSC "Kyzilkumtsement" margin companies was 18 percent in 2015, and 19 percent in 2020. It can be seen from this that it shows that the economic benefit of the joint-stock company has increased. An increase in economic profit leads to an increase in the value of capital to society. In 2015, the NOPLAT margin of Uzmetkombinat JSC was 4 percent, and in 2019 it was 10 percent. This, in turn, shows that the economic profit of the enterprise has increased by 10 percent and the cost of capital has also increased by 10 percent. However, in 2015, the margin NOPLAT was 18 percent, and in 2019, it was -1 percent. In "Quartz" JSC, it decreased from 12 percent in 2015 to 2 percent in 2020. In conclusion, it should be said that the growth of the NOPLAT margin leads to an increase in the joint-stock company's economic profit and capital value.

In addition, in finding the capital value of the joint-stock company it is necessary to take into account the return on invested capital (ROIC) indicator. This indicator shows the effectiveness of the investment made in the capital of the joint-stock company (Table 2).

Return on invested capital (ROIC) of joint stock companies

(in percent)

	" Kyzilkumtsement " JSC	" Uzmetkombinat " JSC	" Kokan Mechanical Plant" JSC	"Quartz" JSC
2015	42%	4%	22%	22%
2016	16%	7%	14%	46%
2017	32%	5%	10%	49%
2018	36%	16%	7%	26%
2019	46%	13%	-0.5%	18%

The analysis of Table 2 shows that the rate of return on invested capital of Kizilkumtsement JSC was 42% in 2015 and 46% in 2019. In 2015, JSC "Uzmetkombinat" accounted for 4%, and in 2019, it will show 13%. However, the return on invested capital of "Ko'kan Mechanics Plant" JSC was 22% in 2015, and -0.5% in 2019. "Quartz" JSC decreased from 22% in 2015 to 18% in 2018. Summing up from these indicators, it is worth noting that it shows how much of the investment capital involved in the capital of the joint-stock company is a profit. In our analysis, the capital investment of Kizilkumtsement JSC is 46% effective, Uzmetkombinat JSC is 13% effective, and Kverts JSC is 18% effective. However, the capital efficiency of the investment in the capital of "Kokon Mechanical Plant" JSC is -0.5 percent.

CONCLUSION

The following conclusions and proposals were formed on the basis of the scientific work carried out above: First, it is appropriate to use the evaluation indicators of developed countries in determining the value of the capital of the joint-stock company. In particular, the assessment of the capital value of joint stock companies, taking into account the value of assets, the value of private capital, provides an opportunity to determine the real market value of the capital value.

Secondly, when determining the added value and economic profit of a joint-stock company, it is necessary to take into account the indicator of operating profit after tax (NOPLAT). The NOPLAT indicator is used to calculate the economic added value of this indicator. It serves to evaluate the value of private capital of joint-stock companies.

Thirdly, when determining the return on capital of a joint-stock company, it is necessary to use the coefficient of return on invested capital (ROIC), which is widely used in developed countries. This ratio is used to determine the effectiveness of the capital investment of the joint-stock company.

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