

INFLUENCE ASSESSMENT OF ENTERPRISE MANAGEMENT VALUE BASED ON COEFFICIENTS METHODS UNDER THE RISK CONDITIONS

MANSUR ESHOV

ABSTRACT. In this article has been discussed the management of the fundamental value of the enterprise through the method of discounting cash flows. Assessing the effectiveness of management decisions and determining the impact of management on the financial results of the enterprise and its value can be done primarily in the context of risk and instability, using the coefficient method. The final results of the business describe the profitability indicators more fully than the primary value factors, which show the effective ratio of cash and used resources (return on sales, return on assets, return on debt capital, return on equity, return on non-current and working assets, return on invested capital). According to the author, the final coefficient is the structural basis of the concept of enterprise value management.

1. INTRODUCTION

In world practice, one of the directions of modern management in the management of enterprises in recent years is the gradual introduction of the concept of value management. The increase in the income of property owners (shareholders) depends not on the amount of additional capacity added to the enterprise, the number of employees hired or the amount of working capital of the company, but on the increase in the value of the enterprise they own. In the post-global financial crisis, there has been a transition in foreign countries from

2010 *Mathematics Subject Classification.* 91B05, 91B74.

Key words and phrases. risk models, management decisions.

the management of market value in enterprises to a system of assessment and management of its fundamental value.

In particular, the United States, which accounts for about 85 % of world GDP, has 20.5 trillion US dollars (23.9 percent), China 13.6 trillion US dollars (15.9 percent), Japan 4.9 trillion US dollars (5 , 8 percent) Germany \$ 3.9 trillion (4.7 percent), the United Kingdom \$ 2.8 trillion (3.3 percent), France \$ 2.8 trillion. (\$ 3.2 percent). The concept of value management is being introduced in countries such as At the heart of this concept is the idea of efficient use of enterprise resources and ensuring its financial results are the highest.

In particular, the United States, which accounts for about 85% of world GDP, has 20.5 trillion US dollars (23.9 percent), China 13.6 trillion US dollars (15.9 percent), Japan 4.9 trillion US dollars (5 , 8 percent) Germany \$ 3.9 trillion (4.7 percent), the United Kingdom \$ 2.8 trillion (3.3 percent), France \$ 2.8 trillion. (\$ 3.2 percent). The concept of value management is being introduced in countries such as At the heart of this concept is the idea of efficient use of enterprise resources and ensuring its financial results are the highest [22].

Research conducted by international organizations such as the American Institute for Asset Valuation, the World Bank's Institute for Economic Development, the International Bank for Reconstruction and Development, the International Committee on Property Valuation Standards, and the European Group of Appraisers Association in the management of market value in enterprises, it is necessary to pay special attention to the assessment of its fundamental value. These studies have shown that ensuring the growth of the value of enterprises is an effective way to focus on the internal (fundamental) factors of attracting investment in their innovative development. "Apple's market capitalization in 2018 was \$ 961.3 billion, Microsoft's market capitalization was \$ 946.5 billion, and Amazon.com's market value was \$ 946.5 billion,". The research also includes methods of assessing the value of the enterprise in the process of restructuring through mergers, methods of analyzing the assessment of the share of investment and innovative projects in the enterprise value, conceptual aspects of strategic management of enterprise values, management of firms in mergers and acquisitions. value management, the development of organizational and economic methods and models of enterprise value management are widely studied. However, the issues of complex assessment of their financial

condition based on the factors that shape the value of the enterprise, the analysis of approaches to identify drivers, the assessment of the value of assets of the enterprise, liquidity ratio, solvency, financial stability and profitability have not been sufficiently studied.

2. LITERATURE REVIEW

The methodological basis of enterprise value management, its gradual increase through investment attraction, innovative development of enterprises and asset valuation have been extensively studied in the scientific works of foreign authors. A.Marshall, J.Mill, D.Ricardo, A.Smith and many other representatives of the school of classical economic theory dealt with the issues of value theory. Various aspects of macroeconomic relations, the reasons for the creation of enterprises and their activities S.L. Brew, K.R. McConnell [1], R.G. Kouz [2], P.M. Kachalov, V.D.Nordxaus, S.P. Robbina, P.A. Samuelson [3], A. Strickland, V.L. Tambovtsev [4], A. Described in the work of Thompson [5] and other economists.

The main theoretical developments in the field of value assessment and management of enterprises are F. Black [6], J. Brennan [7], T. Gordon [8], G. Desmond [9], A. Damodaran [10], R. Kaplan [11], R. Kelly, T. Koller, T. Couplend, M. Miller, F. Modigliani, S. Pratt, S. Sander, D. Friedman, K. Shipper, and others. G.Alexander, D.Baylee, L.Gitman [12], M.Djonk, D.Lintner, H.Markovits, S.Ross, U.Sharp have made a great contribution to the development of models for determining the value of shares and the organization of prices for financial assets. The issues of valuation and management of the enterprise were discussed by scientists of our country - D. Aknazarov [14], A. U. Burkhanov [15,17,19], Sh. Zaynutdinov [16], B. Khodiev, N. Jumaev, N. Karimov, A .Kravchenko, J. Sagdullaev [17], N. X. Jumaev [18], and others.

The main theoretical developments in the field of value assessment and management of enterprises are F. Black [6], J. Brennan [7], T. Gordon [8], G. Desmond [9], A. Damodaran [10], R. Kaplan [11], R. Kelly, T. Koller, T. Couplend, M. Miller, F. Modigliani, S. Pratt, S. Sander, D. Friedman, K. Shipper, and others. G. Alexander, D. Baylee, L. Gitman [12], M. Djonk, D. Lintner, H. Markovits, S. Ross, U. Sharp have made a great contribution to the development

of models for determining the value of shares and the organization of prices for financial assets.

The issues of valuation and management of the enterprise were discussed by scientists of our country - D. Aknazarov [14], A. U. Burkhanov [15, 17, 19], Sh. Zaynutdinov [16], B. Khodiev, N. Jumaev, N. Karimov, A. Kravchenko, J. SVagdullaev [17], N. X. Jumaev [18], and others.

3. METHODOLOGY

It is well known that the end result of management - profit - describes profitability indicators more fully than the primary value factors, as it shows the effective ratio with cash and resources used.

Profitability is an outcome indicator of evaluation, which characterizes the efficiency of the use of available resources in the enterprise, reflects the efficiency of doing business and the growth (decrease) of activity.

This indicator shows how effectively the enterprise uses the economic, natural, monetary and labor resources at its disposal. It shows how much revenue should be generated from the sale of the finished product to cover the cost of producing the product and selling it. An enterprise is considered profitable if it makes a profit after all production costs.

Increasing the level of profitability of the enterprise leads to the need to implement measures aimed at increasing the volume of products sold by all its branches and enterprises, reducing production costs, improving the quality of products.

Profit maximization means increasing profitability, and this can be achieved in the following ways:

- restructuring or diversification of production;
- resource saving - efficient use;
- improving the capital structure;
- improving the capital structure;
- strengthening labor motivation;

The following coefficients can be used as indicators of profitability:

- Sales profitability (ROS);
- Return on assets (ROA);
- Return on equity (ROE);

- Cost-effectiveness (ROCS);
- Return on non-current assets (RFA);
- Return on current assets (RCA);
- Return on investment (ROI).

Using these indicators, we analyzed the profitability of JSC "Elektrqishloqqurilish", which is the object of research in 2013-2018, and developed forecast indicators for 2019-2022.

1. Return On Sales, Net Profit Margin, ROS:

$$\text{ROS} = (\text{net profit} : \text{revenue from all sales}) * 100\%.$$

The indicator of sales profitability describes the sales of the main product of the enterprise and allows to estimate the share of cost in sales.

Sales profitability is an indicator of an enterprise's pricing policy and its ability to control costs.

The indicator should not be negative and should correspond to the current inflation rate.

The indicator has no normative value. Like many other indicators, it is necessary to compare value with competitors operating in the same segment. It is advisable that the indicator value be greater than 1. High value indicates that the market situation is strong, the value of the enterprise's product or service is high, and good management.

If the profitability of sales is constantly declining compared to previous periods, it indicates the possibility of a decrease in demand for the product (goods, services) or an increase in the activity of competitors. Profitability can be increased in two ways: by increasing the price of the product (if this is possible in the current market conditions) or by reducing the cost. The cost of the product can be reduced through cheaper raw materials and optimization of production costs.

According to the data, profitability ratio of sales of JSC "Elektrqishloqqurilish" during the reporting period varied. In particular, in 2017 it was 5.4%. Compared to 2016, the level of profitability of sales decreased by 2.2 percentage points (Table 1). This suggests that the organization in question is making the transition to new and promising product technologies that require large investments, so profitability may decline temporarily. However, if the strategy is chosen correctly, the costs incurred will be recouped in the future, and in this

case, the decline in profitability during the reporting period does not mean that the efficiency of the enterprise is low.

2. Return on Assets, ROA: $ROA = (\text{net profit} : \text{assets}) * 100\%$

The calculation of this indicator is often used to compare enterprises in similar industries. Optimizing the structure of assets allows you to reduce their size and increase profitability, while increasing the amount of profit generated or remaining at the same level. Given that the return on assets is formed under the influence of absolutely all internal and external factors, the reserves to increase the indicator can be in all areas of enterprise activity. In general, it is necessary to work to reduce costs and increase revenues.

The level of return on assets of JSC "Elektrqishloqqurilish" in 2016 and 2017 decreased sharply compared to the previous year, ie in 2016 it decreased by 9.5 percentage points compared to 2015 and amounted to 6.9%, and in 2017 decreased by 2.2 percentage points compared to 2016. in the case of 4.7 per cent (Table 1). It should be noted that the return on assets is strongly dependent on the industry in which the enterprise operates. For industries with large capital capacity (for example, in our case - electricity), this figure will be lower.

3. Return on equity, ROE:

$$ROE = (\text{net profit} : \text{own capital}) * 100\%$$

This is the most important financial indicator of efficiency for any investor, business owner, and shows how efficiently capital is used. A similar indicator-in contrast to the return on assets, this indicator describes the efficiency of use of the part of the organization that belongs to the owners of the enterprise, rather than the total capital (or assets).

The higher the return on equity, the better.

Practice shows that it is not possible to compare and manage enterprises based solely on their return on equity, as ROE reflects a company's past performance, but not its risks.

According to the data level of return on equity in JSC "Elektrqishloqqurilish" in 2013-2018 was 54.4% in 2013, while in 2014-2017 it decreased sharply compared to 2013 to 24.6, 23.3, respectively, 8.9 and 6.2%, respectively.

4. Return on Cost of Sales-ROCS:

$$\text{ROCS} = (\text{net profit} : \text{The full cost of goods sold}) * 100\%$$

This indicator can be calculated both for the whole enterprise, and for its individual divisions or types of products. It should be noted that this rate of return does not have regulatory limitations. This is due to the uniqueness of each organization.

The indicator may be affected by the following factors: the structure of goods and / or services sold (an increase in the volume of profitable products contributes to an increase in profitability); increase in cost (inversely proportional to efficiency); price increase (this leads to an increase in the level of profitability).

According to Table 1, the level of profitability of JSC "Elektrqishloqqurilish" in 2013 was 15.0%, while in 2016 and 2017 it decreased sharply to 10.4 and 7.7%, respectively.

In 2015 and 2018, cost-effectiveness was positive compared to the previous year. In this case, the organization shows that the amount of capital invested in production serves to make more and more profit. The business is successful.

In all other years under review, return on assets and return on expenses decreased at the enterprise. The synchronous decline of the two indicators under study indicates that the company has begun to show signs of crisis, and now it is necessary to develop urgent measures to overcome this situation. It is also necessary to pay special attention to the benefits and costs of the enterprise.

5. Return on Current Assets-RCA:

$$\text{RCA} = (\text{net profit} : \text{current assets}) * 100\%$$

The higher the value of this coefficient, the more efficiently the circulating means are used. If, according to the results of the calculation, this rate of return is greater than 0, it can be concluded that the assets are used efficiently

enough and the enterprise is making a profit. Correspondingly, the higher it is, the higher the efficiency of using the fixed assets of the enterprise. A negative indicator is an indication of inefficient financial and economic policies of the company, as well as improper organization of production.

The return on current assets is high in 2013-2015 and 2018 (Table 1). In 2016-2017, the indicator had a downward trend. However, it is also necessary to take into account the characteristics of the enterprise and the operating industry, as capital investment and the length of the production cycle vary in different areas of industry.

6. *Rate of Fixed Assets, RFA:*

$$\text{RFA} = (\text{net profit} : \text{long-term assets}) * 100\%$$

The high rate of this ratio indicates the efficient use of fixed assets and the short payback period of new investments in fixed assets.

The data in Table 1 show that the return on non-current assets of the analyzed enterprise has a significant value. In 2013, this figure was 215.3%, but in 2014-2017, the figure had a sharp downward trend, and by 2017 it had dropped to 29.3%, or 186% points. Depreciation methods used in an enterprise have a significant effect on the value of property, plant and equipment and intangible assets.

7. *Return On Investment, ROI:*

$$\text{ROI} = (\text{profit} + (\text{selling price} - \text{purchase price})) * 100 / \text{purchase price}$$

here:

profit - income received at the time of ownership of the asset;

purchase price - the price at which the asset is purchased;

selling price - the price at which the asset is sold (or can be sold) at the end of the ownership period.

It shows how the return on the initial investment is obtained, i.e. the ratio between the return received and the amount of the initial investment. The ROI ratio and its level are not considered key indicators of a company's success because it does not reflect situations involving certain rapid flows (e.g., debt capital financing, etc.), but nevertheless, key operational turnover efficiency is sufficiently clear. The ROI reflects the profitability of the project when the value is greater than 100% or the loss of the enterprise as a percentage when the value is less than 100%.

4. ANALYSIS AND RESULTS

The data presented in Table 1 show that the level of return on investment in JSC "Elektrqishloqqurilish" in 2013 amounted to 54.4%. However, in 2014-2017, there was a downward trend in this indicator.

From the above analysis, it can be concluded that all profitability indicators are expected to decrease in 2014, 2016 and 2017 compared to the previous year. This was due to the decline in absolute financial performance of the enterprise. This means that in the years under analysis, the enterprise is able to generate more profit compared to the profit it makes using the available amount of resources.

Forecast of profitability indicators of JSC "Elektrqishloqqurilish" for 2019-2022. In determining the value of the enterprise, special attention is paid to the forecast of key coefficients. Therefore, we forecast changes in the profitability indicators analyzed above in 2019-2022.

Indicators	Years			
	2019	2020	2021	2022
Sales profitability	12,9	16,1	10,5	10,1
Return on equity	36,6	44,7	45,5	53,1
Return on non-current assets	149,0	177,8	186,1	208,2
Return on investment	45,0	51,3	47,2	54,4
Return on assets	21,1	24,1	19,9	22,3
Cost-effectiveness	17,7	22,4	13,6	13,3
Return on current assets	37,3	42,7	31,9	35,2

TABLE 1. Forecast of profitability of JSC "Elektrikishloqqurilish" for 2019-2022

Source: Author's calculation according to data for JSC "Elektrikishloqqurilish"

According to the forecast for 2020, the rate of return on sales will be 16.1%. However, by 2022, this figure will be 10.1%. That is, compared to 2019, the negative deviation of the indicator (-) is 2.8% (Table 1).

In the forecast period from 2019 to 2022, the return on assets will be insignificant, ranging from 21.1% to 22.3% or (+) 1.2% growth. However, the projected

values of the asset rate of return are not observed to be stable over the forecast years. A jump in the rise and fall of predictable indicators will be relevant.

The return on equity has a steady growth trend from 2019 to 2022.

According to statistics, the return on equity in U.S. and UK businesses averages about 10-12%. For developing countries, including Uzbekistan, this figure should be higher than these values, and we are watching this.

In conclusion, in order to manage profitability indicators, it is necessary to understand under what factors they change.

- 1 The increase in sales profitability - the probable causes - is a change in the structure of goods sold or an increase in sales.
- 2 The rate of decline in costs is higher than the rate of decline in sales revenue - the probable causes are an increase in the cost of financing (goods, services) or a change in the structure of the sales range.
- 3 Revenue from sales increases when costs decrease - possible reasons are price increases, cost structure, or changes in the range of goods sold.
- 4 The growth of costs is higher than the growth rate of sales revenue - the reasons - inflation, falling prices, changes in the range of goods sold, rising costs.
- 5 Expenditures increase and revenues decrease - reasons - decrease in prices, change in cost structure.

For the enterprise to operate without losses, it is necessary to monitor the level of profitability of the entire product structure and analyze the impact of internal and external factors on profitability. Economic profitability of assets is the most important indicator of the efficiency of the main activities of the enterprise.

Evaluating the selected indicators, it can be said that the decrease in return on equity identified two factors - a decrease in margins (return on sales) and a decrease in asset turnover, resulting in a partial offset by an increase in market activity and a decrease in operating activity.

It is necessary to determine the value of the most important economic and financial indicators in order to monitor the achievement of the objectives set by the forecast calculations and to assess changes in the future economic condition of the enterprise.

Since the main goal of the company is to maximize value, among the key indicators are profitability indicators, which allow you to determine the indicators

that reduce the value of the company or, conversely, create primary factors of business value.

For the enterprise to operate without losses, it is necessary to monitor the level of profitability of the entire product structure and analyze the impact of internal and external factors on profitability. Economic profitability of assets is the most important indicator of the efficiency of the main activities of the enterprise.

Evaluating the obtained indicators, it can be said that the decline in return on equity identified two factors - a decrease in margins (sales profitability) and a decrease in asset turnover, resulting in a partial offset by an increase in market activity and a decrease in operating activity.

Forecast calculations are necessary to determine the value of the most important economic and financial indicators to monitor the achievement of the set goals and to assess changes in the future economic condition of the enterprise. Since the main goal of the company is to maximize value, among the key indicators are profitability indicators, which allow you to determine the indicators that reduce the value of the company or, conversely, create primary factors of business value.

The economic and financial model developed in EXCEL spreadsheets allows you to perform scenario calculations that can be performed on key initial data changes and show the sensitivity of forecast indicators to changes in the company's internal and external environment.

Creating value that is recognized by the market and can be converted into cash by selling part or all of the company, as well as creating a strategic management system to maximize the value of the business, becomes the main task of financial management of the enterprise. That is why today in the concept of enterprise value management it is important to assess the value of the business and, with its help, to assess the consequences of decisions based on previous calculation stages. Companies that are in unlimited market movement should be evaluated objectively. Knowing our real market value, we can draw conclusions about its development prospects.

The valuation of the valuation items with the income approach is done using the following: the cash flow discounting method and the direct capitalization method.

Discounting is the most important mechanism that allows you to clearly visualize the financial condition of the organization. Discounting means that the

present value of future financial flows may differ significantly from their nominal value. According to monetary value theory, a single amount paid in different time periods has a different value for two reasons: the risk of default and the possibility of an alternative investment.

The cash flow discounting method (DDP method) is used to evaluate enterprises whose cash flows are unstable and based on determining the value of an object by subtracting the sum of the present values of cash flows expected in the pre-forecast and post-forecast periods (end of the period). [20]

Cash flows from operating activities are discounted at a rate that reflects the risk of these cash flows, in which case the weighted average cost of capital is assumed.

The basic algorithm for valuing an enterprise (shares, stakes, shares) by the DDP method is as follows:

- 1) Select the cash flow model. One of the two cash flow models is used in valuing a business: a) cash flow for equity; b) cash flow for total invested capital (debt-free cash flow or, in English, FCFF - free cash flow to the firm). If a company is attracting long-term borrowings on a regular and consistent basis, it is advisable to book the cash flow account for the total capital invested. If the company operated primarily on its own capital, the cash flow is also calculated for its own capital.
- 2) Justify the length of the forecast period. The length of the forecast period is determined by the company's ability to forecast cash flow with sufficient accuracy and detail. It is assumed that at the end of the bashoart period, the company will reach a stable state characterized by the following symptoms: the company will support the constant return on previously invested and new capital and grow at a steady growth rate. [21]
- 3) Retrospective analysis and forecast of gross income, expenses and investments. Two methods can be used to forecast a company's gross revenue and expenses - a scaled-down and a detailed approach. The consolidated approach is based on forecasting revenue, taking into account the growth rate for previous years. In calculating cost forecast values, this approach assumes that variable costs increase in proportion to seed growth. The detailed approach is based on the study of a large

amount of information. In particular, the calculation of gross revenue requires financial security and expert forecasts of changes in economic conditions on the volume of products sold for previous years, the current and forecast prices of the product. To calculate costs, this approach determines the cost of the product by cost elements.

- 4) Calculate the amount of cash flow for each period. There are two ways to calculate cash flow. The first method is an indirect method, in which the company's activities are carried out by analyzing the movement of cash in the directions. This method is based on the cash flow budget and the subsequent calculation of cash flows. The second method is the direct method, which focuses on the analysis of cash flows by cost and revenue items, i.e. the company considers the balance sheet and based on it the subsequent calculation of cash flows.
- 5) Determining the discount rate. The calculation of the discount rate takes into account the following factors: the availability of different sources of borrowed capital, changes in the value of money over time, and possible risks. Depending on which cash flow model is chosen, the company determines the discount rate: for its own capital cash flow it is the cumulative rate model or capital asset valuation model (CAPM), for invested capital cash flow it is the weighted average capital value model (WACC).
- 6) Calculation of the amount of value in the post-forecast period (reversal). The post-forecast period is the remainder of the company's life cycle where a steady rate of cash flow growth is expected. In the post-forecast period, a reversal value is calculated to calculate the value of the company. Reversal is the income that can be received from the re-sale of an enterprise at the end of the forecast period. Depending on the future development prospects of the company, there are several different methods of calculating the reversal: the method of calculating the cost of termination, the method of calculating the value of net assets, the method of estimated sales, and the Gordon model.
- 7) Summarize the current values of rivers and future cash flows and make final adjustments. It is planned to calculate the amount of values in the forecast period and the post-forecast period, excluding debt capital at the beginning of the forecast period.

Calculations are made according to the following formula:

$$PV = \frac{CF_1}{1 + DR} + \frac{CF_2}{(1 + DR)^2} + \dots + \frac{CF_n}{(1 + DR)^n} + \frac{CF_n}{(1 + DR)^n}$$

here:

PV-current value;

CF-N-period cash flow;

FV-reversal, the residual value of an enterprise in the post-forecast period;

DR-discount rate;

n-the last year of the forecast period.

Determining the length of the forecast period is carried out taking into account the development plan of the enterprise, the dynamics of value indicators (revenue, cost, profit, price, etc.), trends in demand, production and sales.

The maximum duration of the forecast period can also be determined. If there are no objective reasons for the enterprise to cease operations, it is assumed that it may continue to operate indefinitely. The subsequent existence period of an enterprise is divided into two parts: the forecast period, in which the dynamics of cash flows are forecasted, and the post-forecast period, which takes into account the long-term rates of cash flow growth.

Calculation of indicators related to the determination of the value of the enterprise for management purposes. In order to determine the value of JSC "Elektrikshloqqurilish" at the initial stage of this process we will determine the forecasted cash flow for the period 2019-2022. The starting year for the calculations is the cash flow, profit and loss statement for 2018, balance sheet indicators and forecast data calculated on their basis. Table 2 shows these calculation indicators. An analysis of these indicators is presented in the second chapter of the study.

Net profit for the forecast year is determined in the following order: income (profit) tax and other taxes are deducted from the profit before the payment of income tax. Thus, the calculation of the net profit forecast shows that its value by 2022 will be 5,429,454,000 UZS. The calculation of cash flow for the enterprise's own capital is done for the period from 2019 to 2022 (Table 2). Cash flow to equity is generated by the enterprise's own capital. In this case, the current amount of equity is given in Section I of the liabilities of the balance

sheet of the enterprise - "Sources of own funds." Therefore, discounting cash flows to equity allows you to assess the value of the business in terms of equity.

The indirect method allows the analysis of cash flows by areas of activity. It clearly shows the investment of available funds and the use of income. The cash flow determination model for equity is shown in table 2. Indirect cash flow to equity = net profit for the period (year) + depreciation for the period + increase in long-term debt for the period - increase in working capital for the period + excess working capital - capital investment for the period - long for the period decrease in term debt.

The data in Table 2 show an increase in net cash flow during the forecast period. This is due to an increase in net profit and an increase in working capital. According to the forecast, the cash flow in 2018 amounted to 14,153,723 thousand UZS, and according to the forecast, by 2022 it will increase to 21,667,959 UZS, or 7,514,236 thousand UZS. The value depends on how the components of the cash flow indicators change over the forecast years. Therefore, if they do not change significantly during the forecast period (during the year), the change in net cash flow during the forecast period will not have a significant impact.

Determination of the discount rate by the method of cumulative structure. The method of cumulative structure of the discount rate is the most popular method of calculation at the current stage of development of valuation activities. The essence of the cumulative structure method is to deduce the sum of the risks, which are often determined by experts. The reliability of the assessment is the most important concept in the assessment activity, in which case it depends not on the reliability of the initial data, but on the professionalism and independence of the expert appraiser. In most cases, the cumulative method of discounting rate is used when the client requires certain requirements to be met by the results of the assessment when employed, because the discount rate calculated by this method ranges from the net value of the risk-free rate (e.g. 7%) to the maximum risk level at a risk-free rate - 42%). This allows the value obtained under the revenue approach to be changed multiple times at the customer's request.

The main opportunity in the discounting process is to set a specific discount rate. From an economic point of view, the discount rate (discount rate) is the rate of return that can be obtained when an organization has these funds. Using the discount rate, it is possible to determine the amount that an investor must pay today in order to be eligible to receive money in the future for the

Indicators	2018y	2019y	2020y	2021y	2022y
Net income	80733251	87864379	94391410	98879638	99650222
Product cost	57924944	57714725	55923907	53253223	51384259
Current expenses	18729311	18928740	18479297	17542593	16765090
Means of circulation	27529754	30713153	33896552	37079951	40263350
Other income	2389700	2429369	2407984	2301674	2180357
Income from financial	993583	1002837	967574	911150	868804
Expenses on financial	0	0	0	0	0
Income from rent	0	0	0	0	0
Gross profit	22808307	22981718	22366865	21210262	20245301
Profit before tax	7364621	7309402	7050719	6671653	6458606
Taxes	1172115	1145390	1100351	1046841	1029152
Net profit for the re- porting period	6192506	6164012	5950368	5624812	5429454
Depreciation	12406963	14116118	15825273	17534428	19243583
Capital investments	8525	18664	45852	73041	100229
Sale of assets	0	0	0	0	0
Growth of current as- sets	4485257	3183399	3183399	3183399	3183399
Lack of own working capital	790813,8	822899	854983,2	887068,4	919153,6
Dividends on pre- ferred shares	0	0	0	0	0
Growth of Long-term debt	838850	928563	1018277	1107990	1197704
Reduction of long- term debt	0	0	0	0	0
Cash flow for equity	14153723	17183731	18709683	20123721	21667959

TABLE 2. JSC "Elektrqishloqqurilish" cash flow forecast for its capital, thousand UZS

Source: Compiled by the author on the basis of JSC.

intended amount. The discount rate plays a specific economic normative role that reflects the growth rate of the relative value of money in the early receipt (or late spending) of money.

The basic discounting rules that can be applied to virtually all situations are as follows: If the time value of money is not significant, discounting is usually not done. The percentage formed in the discount is calculated on the effective interest rate, not on a flat basis.

We determine the rewards for risk and their percentage. Thus, the risk-free interest rate was chosen to be 5%, the risk premium for stocks compared to risk-free investments to 4%, and the risk premium for small indicators to 3%. Also, the maximum share of the risk premium is set for the risk specific to a particular enterprise, which was 7%.

Subtracting the above figures and their percentages, we set the discount rate at 19%. The expected rate of return is estimated according to the following formula:

$$r_c = R_f + RP_m + RP_s + R_{p_u}$$

here:

R_f -the rate of return for a risk-free security;

RP_m -stock risk market premium;

RP_s -small companies risk market premium;

R_{p_u} -a non-systemic risk premium for a particular company.

It is also necessary to set interest rates for systemic and non-systemic risks. Systemic risk describes an external risk that an entity is unable to influence or prevent.

Systemic risks arise under the influence of general events such as inflation, economic downturn or rise, increase in interest rates. These phenomena affect the state of affairs of any firm and, therefore, can not be eliminated by diversifying the investment portfolio (a set of financial assets of different issuers). In this regard, systemic risk is also referred to as "market risk" or "non-diversified risk".

Nine risk observations were identified (Table 4), of which three were identified as a dynamic risk category and included in the list of systemic risks. These include: deterioration of the overall economic situation with an interest rate of

4%, an increase in the number of competitive facilities, and changes in national and local legislation, from 6% per position.

Systemic risk is related to the activities, financial condition of a particular firm, and its commercial and financial risks are no stranger. Six observations of non-systemic risks were identified (Table 3). Two of them are static risk categories. This is the risk of natural and anthropogenic emergencies (5%) and the risk of rapid deterioration of buildings and structures (3%).

These include the following risks: delays in supply payments with a 5% interest rate; Inefficient management of 4%; 5% financial audits; Improper execution of lease agreements equal to 3%.

We determine the measured outcome by summing the percentage of risks by the number of observations. Thus, we have a score of 0.41. Then, we multiply the measured outcome by the amount obtained from subtracting the sum of the number of observations and determine the correction for the risk of insertion into the object. We have a rate of 4.6 percent.

There is another risk group that needs to be considered in the process of determining the value of an enterprise for management purposes. In fact, almost all types of risks and their percentage content have already been identified. Only three components are identified: the master for the risk in the real estate, the segment, and the object (Figure 4). It was found that the risk-free rate is 5%; premium for low liquidity 4.6%; 3% premium for investment management risk; a total of 10.6% r investments in real estate, r segment risk, r object risk were identified as premiums (Figure 4). As a result, we have Y_n , which is 23.1%. After calculating the cash flow for JSC "Elektrqishloqqurilish" and determining the discount rate, we calculate the discount multiplier for the forecast 2019-2022. The discount rate (discount multiplier) is determined by the following formula:

$$K = \frac{1}{(1 + r)^t}$$

where: r is the discount rate; t - accounting period, year.

The data in Table 3 show that the discount multiplier decreased from 0.9167 to 0.5934 or 0.3233 during this period.

The next indicator calculated in the process of determining the value of JSC "Elektrikishloqqurilish" is the current value of the enterprise, which is determined by multiplying the value of the capital stock for the specified forecast

period by the discount multiplier (Table 3). In particular, the current value in 2019 is 12135150.8 thousand UZS; 2020 - 11102326.4 thousand UZS; 2021 - 10035700,0 thousand UZS; 2022 - 9078875.0 thousand UZS. In general, in the period from 2019 to 2022, the current value of the enterprise will decrease by 24% or 2,814,498.6 thousand UZS (Table 3).

Indicator	Years			
	2019	2020	2021	2022
Cash flow for equity	17183731	18709684	20123722	21667959
Discount rate	19%			
Discount multiplier	0,7062	0,5934	0,4987	0,4190
Current value	12135150,8	11102326,4	10035700,0	9078875,0

TABLE 3. Calculation of the current value of JSC "Elektrqishloqqurilish", thousand UZS

Source: Author's calculation according to data for JSC "Elektrikishloqqurilish"

The next step in determining the fundamental value of JSC "Elektrqishloqqurilish" is to determine the total current value of the enterprise, which is determined by adding the current value obtained for the forecast period 2019-2022.

Enterprise reversal, current and fundamental value calculation.

Reversion is the return of capital at the end of the forecast period. In the post-forecast period, the reversal value is calculated based on the structure of all equity assets. In cases where the enterprise's assets (equity) consist mainly of long-term assets (fixed assets, capital investments, investments, etc.), the reversal value is calculated by discounting the market value of the enterprise's net assets on the post-forecast period (Table 4).

In cases where the enterprise's assets consist mainly of current assets (cash, finished goods, goods, etc.), the reversal value is calculated by capitalizing the cash flow for the first year after the forecast at a capitalization rate that takes into account long-term cash flow growth. The calculations are performed according to the following formula according to Gordon's constant growth model:

$$FV = CF_t : (DR - t)$$

here: FV-expected value in the post-forecast period (reversal value);

C_{Fr}-cash flow for the first year of the post-forecast (residual) period (last forecast period cash flow multiplied by $1 + t$);

DR-discount rate;

t - long-term (conditionally constant) rates of cash flow growth in the post-forecast period.

Indicator	1st fore- cast y	2st fore- cast y	1st fore- cast y	N - fore- cast y	Post- forecast period
Cash flow C _{Fi}	CF1	CF2	CF3	C _{Fn}	C _{Fr}
Expected value in the post- forecast period (reversal value)	-	-	-	-	FV= C _{Fr} /(DR- t)
Discount multi- plier	DF1=1/(1 +DR) ¹	DF2=1/(1 +DR) ²	DF3=1/(1 +DR) ³	DF _n =1/(1 +DR) ⁿ	DF _n =1/(1 +DR) ⁿ
Reverse and current value of cash flows	PV1=CF1 * DF1	PV2=CF2 * DF2	PV3=CF3 * DF3	PV _n =C _{Fn} * DF _n	PV _r =FV * DF _n

TABLE 4. Formulas for calculating the current value of reversal and cash flows

Source: Author's calculations

Developed on the basis of the National Standard of Property Valuation of the Republic of Uzbekistan. Methodical instructions on use of MBMS No. 8 "Valuation of property for the purpose of privatization". Resolution of the State Committee for State Property Management of the Republic of Uzbekistan dated 06.10.2009 No. 01 / 19-18 / 20 on approval of the National Standard of Property Assessment of the Republic of Uzbekistan (MBMS No. 8) "Valuation of property for privatization" (by the Ministry of Justice of the Republic of Uzbekistan) Registered on October 28, 2009 No. 2025).

When the cash flow discounting method is used, the long-term growth rate of cash flows in the post-forecast period is 2% per annum.

The calculation and adjustment of the present value of cash flows in the forecast period is carried out by discounting their indicators on the appropriate ratio of the current value of the exchange (discount factor). When the cash flow discounting method is used, it is necessary for the company to summarize the current values of the periodic cash flows arising in the forecast period and its present value in the future forecast period. The revaluation value (last forecast year factor) should be discounted and added to the sum of the current values of cash flows (Table 5).

Indicator	Forecast period				Forecast
	2019y	2020y	2021y	2022y	
Cash flow for equity, SFi	17183731	18709684	20123722	21667959	22101319
Value at the end of the forecast period, FV	-	-	-	-	13000775
Current value coefficient, DF	0,7062	0,5934	0,4987	0,4190	0,4190
Current value	12135150,811102326,4	10035700,0	9078875,0	54473249	

TABLE 5. Calculation of the current value of rivers and cash flows of JSC "Elektrqishloqqurilish" thousand UZS

Author's calculation according to data for JSC "Elektrikishloqqurilish"

Thus, the calculation of equity cash flow for the first year after the forecast is as follows:

$$CFr = 21\,667\,959 \cdot (1 + 0,02) = 22\,101\,319 \text{ thousand UZS.}$$

Expected value in the first year after the forecast (reversal value): $22\,101\,319 / (0,19 - 0,02) = 130\,007\,754$ thousand UZS

Now, we determine the current reversal value by multiplying the value of the enterprise rivers by the discount multiplier obtained in the last forecast period (2022). In other words, the calculation of the reversal is done by discounting the indicators according to the coefficient corresponding to the current value of the unit (discount factor).

The current value of rivers for JSC "Elektrqishloqqurilish" is as follows: $PVr = 130\,007\,754 * 0,4190 = 54473\,248$ thousand UZS.

Once the reversal and the present value of future cash flows are determined, final adjustments are made as needed. Two of them can be distinguished - changes in the value of inactive assets and adjustments in the value of working capital.

Thus, in calculating the value by the cash flow discount method, it is necessary to take into account the value of the assets of the enterprise (including in conservation) that are not involved in production and profit.

The initial change is based on the fact that in calculating the value, we only took into account the assets of the enterprise that is engaged in production, generating income, that is, generating cash flow. However, any enterprise may have assets that are not directly related to production at any given time. If so, then their value is not included in the cash flow, but this does not mean that they have no value. Today, many local enterprises have such inactive assets (mainly real estate, machinery and equipment) because the utilization rate of production capacity is very low due to the decline in production.

Many such assets, for example, have a certain value that can be realized in a sale. It is therefore necessary to determine the market value of such assets and include it in the value obtained by discounting the cash flows.

The second adjustment is to take into account the current size of its working capital. In the discounted cash flow model, we include the required amount of its own working capital, which is tied to the sales forecast level (usually determined by industry norms).

The current working capital at the disposal of the enterprise may not correspond to the required level. Accordingly, an adjustment is required: its excess working capital must be added, and the deficit is subtracted from the original value.

Analysis of changes in the value of a single share of the enterprise.

As part of the study, we will look at how the performance of a company's share price changes.

The first option is calculated and forecasted for the enterprise in 2019-2022 in cases where the number of shares, the nominal value of shares and, of course,

the charter remains unchanged. Here, the authorized capital of JSC "Elektrqishloqqurilish" in 2018 amounted to 814,485,000 UZS. The nominal value of one share was 5,000 UZS. The total number of outstanding shares is 162,897.

According to the data in the period from 2018 to 2022, the value of net profit per share has an upward trend - from 15757.7 UZS to 33330.6 UZS, with a growth rate of 211.5%. However, if we compare 2022 with the first forecast year (2019), we see the opposite situation: from 38014.9 UZS to 33330.6 UZS, ie a decrease of more than 13%.

The second option is calculated for JSC "Elektrqishloqqurilish" in 2018, provided that the number of shares, the nominal value of shares and, of course, the tripartite fund does not change. The charter capital of the enterprise is 814,485,000 UZS. A total of 162,897 shares were issued. At the same time, the nominal value of one share during the calculation period and the forecast period amounted to 5,000 UZS. However, from 2019, the number of shares in the company is projected to increase to 212,897 or 50,000 per year.

Accordingly, the amount of the enterprise's tripartite fund will also increase. According to the forecast, the authorized fund for 2019 will amount to 1 064 485 000 UZS. The data in Table 8 show that in 2017-2022, the growth rate of assets per share will be 64.5%, which means that there is a downward trend from 277,184 UZS to 178,808.3 UZS.

The value of equity per share will also decrease in 2017-2022 from 204,874 UZS (in practice) to 149,190.3 UZS, or 72.8% (Table 8).

In the period under review, the absolute value of the net profit per share and the growth rate decreased from 15757.7 UZS to 14961.4 UZS, which is about 95%.

In short, the higher the value of an enterprise obtained using the DDP method relative to the current value of the enterprise's assets, the higher the company's "added value", the higher its investment attractiveness, and the more successful the business will be.

To assess the degree of impact of value factors, flexibility coefficients are calculated, which show the percentage change in the value of the existing enterprise (business) when the value factor changes by one percent:

$$E = \frac{\Delta V}{\Delta F}$$

here: V-change in the value of the business calculated using the discounted cash flow method, %; F-change in value factor, %.

5. CONCLUSIONS

1. Assessing the effectiveness of management decisions and determining the impact of management on the financial results of the enterprise and its value can be done primarily in the context of risk and instability, using the coefficient method. The final results of the business describe the profitability indicators more fully than the primary value factors, which show the effective ratio of cash and used resources (return on sales, return on assets, return on debt capital, return on equity, return on non-current and working assets, return on invested capital). The final coefficient is the structural basis of the concept of enterprise value management.
2. Forecast calculations are necessary to determine the value of the most important economic and financial indicators in order to monitor the achievement of goals and assess changes in the future economic situation of the enterprise. Among the main indicators - profitability indicators, whose values allow to determine the indicators that reduce the value of the company or, conversely, create, can be noted the primary factors of business value.
3. Cash flow to equity is generated by the enterprise's own capital. The value of a business is determined based on the expectation principle and is a function that takes into account factors such as the company's current and projected cash flows, the period in which the cash flow forecast is made and the rate of return on invested capital that covers all the company's risks.
4. To evaluate the business, it is necessary to calculate future cash flows for each forecast period. This can be done using a direct method based on the forecast of cash flows from operating, investing and financing activities of the entity being valued. It is often used in fundamental analysis, with a more indirect method used in business valuation.
5. It was found that the management of the fundamental value of the enterprise involves the justification of management decisions in relation to the main factors of the value of the company. In this regard, the issues

of identifying and measuring the factors that provide value creation or loss remain relevant.

REFERENCES

- [1] C. R. McCONNELL, S. L. BRU: *Economics: principles, problems and politics*, M. Republic, 1992.
- [2] R. G. COASE: *The nature of the firm: origins; The nature of the firm: interpretation; The nature of the firm: influence; Nobel lecture "Institutional structure of production"*, in collection: *The nature of the firm*. O.I. Williamson, under vol. ed. S.J. Uinte, 1991.
- [3] P. A. SAMUELSON, V. D. NORDHAUS: *Economics*, M. Binom, Laboratory of Basic Knowledge. 1997.
- [4] V. L. TAMBOVTSEV: *Formal and informal in economic management*, Nauka, 1990.
- [5] A. A. THOMPSON, A. J. STRICKLAND: *Strategic management. Concepts and situations*, INFRA-M, 2000.
- [6] F. BLACK, M. SCHOLES, M. JENSEN: *The Capital-Asset Pricing Model: Some empirical tests*, in Jensen, editor, *Studies in the Theory of Capital Markets*, 1972.
- [7] J. BRENNAN, J. BUCHANAN: *The reason for the rules. Constitutional Political Economy*, The Reason of Rules, St. Petersburg: School of Economics, 2005.
- [8] T. GORDON: *Public goods, distribution and rent seeking*, Public Goods, Redistribution and Rent Seeking, Publishing house of the Gaidar Institute, 2011.
- [9] G. M. DESMOND: *Business Appraisal Guide*, M.: ROO Academy of Assessment, 1996.
- [10] A. DAMODARAN: *Investment appraisal. Tools and techniques for evaluating any assets*, Alpina Business Books, 2004.
- [11] R. KAPLAN, J. NORTON: *Strategy-Oriented Organization*, Olymp-Business, 2004.
- [12] L. J. GITMAN, M. D. JONK: *Investment basics*, Delo, 1999.
- [13] J. LINTNER: *Some new perspectives on tests of CAPM and other capital asset pricing models and issues of market efficiency*, John Lintner Harvard Institute of economic research discussion paper, 1981.
- [14] D. AKNAZAROV: *Ways and means of enhancing management potentiall*, Shark, 2002 .
- [15] A. U. BURKHANOV: *Assesment of financial security of investment funds*, Journal of Advanced research in dynamical and control systems, **12**(5) (2020), 293-300. <http://doi:10.5373/JACRDS/V1215/20201717>.
- [16] SH. N. ZAYNUTDINOV, I. U. MURAKAEV, A. T. SHERMUKHAMEDOV, D. T. SAGDULAEV, A. C. KUCHAROV: *Fundamentals of management*, Study guide, Finance, 2001.
- [17] A. U. BURKHANOV, F. H. AKHMEDOV: *Indicators to asses financial security of banks*, International Journal of Innovative technology and Exploring Engineering, **9**(1) (2019), 4465-4468.
- [18] N. X. JUMAEV: *The global financial and economic crisis: essence, causes and impact on Uzbekistan*, Tashkent, 2009.

- [19] A. U. BURKHANOV: *Financial stability of enterprises: theory and practice*, Monography. -Tashkent: "Innovative development publishing house", 2019, (<https://journal.tsue.uz/index.php/archive/article/view/2787>).
- [20] MINISTRY OF JUSTICE OF THE REPUBLIC OF UZBEKISTAN: *Developed on the basis of the National Standard of Property Valuation of the Republic of Uzbekistan. Methodical instructions on use of MBMS No. 8 "Valuation of property for the purpose of privatization"*. Resolution of the State Committee for State Property Management of the Republic of Uzbekistan dated 06.10.2009 No. 01 / 19-18 / 20.
- [21] T. KOUPLAND, T. COLLIER, J. MURRIN: *Value of company—assessment and management*, Olimp-Business, 2005.
- [22] D. WIECEK, L. DULINA: *Materials Requirement Planning with the Use of Activity Based Costing*, Management Systems in Production Engineering, **28**(1) (2020), 3–8.

TASHKENT STATE UNIVERSITY OF ECONOMICS
REPUBLIC OF UZBEKISTAN
Email address: m.eshov@tsue.uz