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BUSINESS VALUATION METHODS, ANALYSIS, AND THE IMPORTANCE OF REVENUE APPROACHES

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Abstract: This article explores the commonly used business valuation methods today. The article describes a mechanism for studying the theoretical and practical foundations of valuation using the methods of discounting and capitalization of cash flows used in the income approach to assessing the value of a business.

Keywords: business, discounting cash flows, capitalization of cash flows, initial investment, current value, future value, interest rate, discount factor, net present value, estimated value.

Introduction

In the established practice, real estate usually includes land and buildings on it (buildings and structures, objects of unfinished construction). Thus, real estate is a land plot and all the buildings permanently attached to it. In the legislation of the Republic of Uzbekistan, the concept of "real estate" is disclosed in the Civil Code1: "Real estate includes land plots, subsoil, buildings, structures, perennial plantings and other property that is firmly connected with the land, that is, objects that cannot be moved without disproportionate damage to their purpose"

The income approach is a set of methods for assessing the value of an enterprise (business) based on determining the expected income from the subject of assessment. The income approach is based on the expectation principle, which states: any asset acquired for the purpose of generating income will cost exactly as much as it will generate income. Thus, the methods of the income approach to business valuation are based on determining the present value of future income. The main methods of the income approach are:

- *cash flow discounting methods* (based on estimates of future income for each of several time periods. These revenues are converted into value using the discount rate and fair value technique);
- *methods of capitalization of income* (when using the capitalization method, the representative amount of income is divided or multiplied by the capitalization ratio to recalculate the enterprise's income into its value).
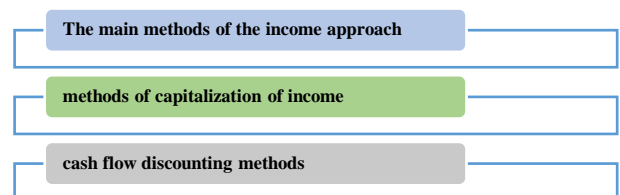
The discounting method is applicable in most cases of valuation when the amounts of cash flows are different in size and come unevenly over a limited or unlimited period of time. If the projected cash flows are equal in value, you can use capitalization methods.

In general, the income approach is most applicable if:

- small or medium business is evaluated;
- the available information is sufficient to forecast the expected income;
- the company's income is stable and positive.

The main disadvantages of the income approach are:

➢ the complexity of forecasting the future income stream due to insufficient stability of the economic situation, the influence of risk factors, and therefore the probability of an inaccurate forecast increases in proportion to the long-term forecast period.

Algorithm of the approach:

1. Setting the task for assessment.

2. Determining the time frame of the analysis: establishing the period during which the object will generate income (in countries with unstable economies - up to 3 years; in developed countries - from 5 to 10 years.)

3. Analysis of financial statements, its normalization and transformation (if necessary).

4. Determination of the values of net income, net profit and net cash flow of the enterprise.

5. The choice of method for assessing the value of the enterprise: either discounted cash flows or capitalization.

Main part. Cash flow discounting method

Discounting is a method of evaluating investment projects by expressing future cash flows associated with the implementation of projects in terms of their current value. The methods of evaluating the effectiveness of investments based on discounting are used in cases of large-scale investment projects, the implementation of which takes a significant amount of time.

The method of discounting cash receipts is the study of cash flow in reverse - from the future to the current point in time. It allows you to determine how much money you need to invest today in order to receive a certain amount of a given period. For this, the formula is used:

$$PV = \frac{FV}{(1+r)^n} = FV * \frac{1}{(1+r)^n} = FV * k_d,$$

where: PV - is the initial investment amount;

FV - is the future value of the investment in n years;

r - interest rate in the form of a decimal fraction;

n - is the number of years in the billing period;

$k_d \downarrow$ - discount factor. It shows the "modern" value of one monetary unit of the future, which is equal to one currency circulating in the business sphere n periods after the moment of calculation, at a given interest rate (yield) r[1].

The discount rate, from an economic point of view, takes into account the minimum rate of return of an entrepreneur at which he is ready to invest capital in a given object. In fact, it reflects the risks associated with investing money in a particular asset.

When calculating the discount rate, it is necessary to take into account the influence of the following factors:

▪ the difference in the cost of capital raised from different sources of financing;

▪ change in the value of money over time (in particular, under the influence of inflationary factors);

▪ risks associated with investing in a particular asset

If interest is accrued m times a year, then the current value of future income is calculated as follows:

$$PV = \frac{FV}{(1+r/m)^{mn}} = FV * \frac{1}{(1+r/m)^{mn}},$$

In other words, discounting cash flows is used to determine the amount of investments that must be invested now in order to bring their value to the required value at a given interest rate.

In order to ensure that in three years the value of the investment was 1,728 thousand soum at a rate of 20 percent, the following amount must be invested:

$$PV = 1728 * 1/1,2 = 1758 * 0,5787 = 1000 \text{ thousand soum}$$

If the investor pays a value lower than the estimated value, he will receive additional income in the form of a discount from the estimated value; if higher, it will incur a loss.

Net present value method (NPV)

The essence of the method is as follows:

1. The current cost value (I_0) is defined, i.e. how much investment should be reserved for the project.

2. The present value of future cash flows from the project is calculated, for which

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[1] Оценка стоимости бизнеса: краткий курс лекций для студентов IV курса направления подготовки 38.03.01

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income for each year (FV) (cash flow) is brought to the current date.

The calculation results show how much money would need to be invested now to obtain the planned income if the income level was equal to the interest rate in the bank or the dividend return of capital. Summing up the present value of income for all years, we get the total present value of project income (PV):

$$PV = \sum_{n=1} \frac{FV_n}{(1+r)^n}$$

3. The present value of costs (I_0) is compared with the present value of income (PV). The difference between them is the net present value of income (NPV):

$$NPV = PV - I_0 = \sum_{n=1} \frac{CF_n}{(1+r)^n} - I_0,$$

NPV shows the investor's net income or net loss from putting money into a project versus keeping money in a bank. If NPV> 0, then the project will bring more income than with alternative capital allocation.

An example. Suppose that the enterprise is considering the advisability of investing 3600,000 soums in a project which in the first year can yield a profit of 2,000 soums, in the second 1600 and in the third year, 1,200 soums.

With an alternative investment of capital, the annual return will be 10%. Is it worth investing in this project? To answer this question, let us calculate NPV by discounting cash receipts.

First, let's determine the current value of 1 soum. at r = 10%

Table №1

Determination of the discount factor

Year	1 st	2 nd	3p[rd
$(1+r)^{-n}$	0,909	0,826	0,751

Then we calculate the present value of income.

Table №2

Determination of the present value of income

Year	Cash receipts, thousand soums	Discount coefficient	Current value of income, thousand soums
0	(3600)	1,0	(3600)
1 st	2000	0,909	1818,0
2 nd	1600	0,826	1321,6
3 rd	1200	0,751	901,2
Total			4040,8

The net present value of cash receipts is: NPV = 4040.8 - 3600 = 440.8 thousand soums.

In our example, it is greater than zero. Consequently, the profitability of the project is higher than 10%. To obtain the planned profit, it would be necessary to invest in the bank 4040.8 thousand soums. Since the project provides such a profitability at a cost of 3600 thousand soums, it is profitable, since it allows you to get a profitability of more than 10%.

Business valuation by capitalization of cash flows

Capitalization is understood as the determination at the date of the valuation of all future equal or changing at the same rate of net income generated by the enterprise or its business lines for equal periods of time.

The capitalization method is used when future net income or cash flows are expected to be approximately equal to current ones or their growth rates will be moderate and predictable. Moreover, net incomes are quite significant positive values, i.e. business will develop steadily.

The essence of the capitalization method is to determine the amount of annual net income and the capitalization rate corresponding to these incomes, on the basis of which the company's price is calculated. In this case, the value of the company is determined by the ratio of the expected income level to the capitalization rate:

Estimated value

$$= \frac{\text{Expected income of the enterprise or business line}}{\text{Capitalization rate}}$$

The level of expected net income can be determined by:

▪ the value of net cash flows (this method is most suitable for companies with significant

real estate, the book value of which decreases, but the actual value remains almost unchanged);

▪ the volume of the company's net profit (this method is usually used to assess enterprises, in the assets of which wear-out equipment prevails);

▪ the volume of gross revenue (used for enterprises in the service sector);

▪ the amount of dividends paid by the enterprise (this method is preferable for shareholders who do not have a controlling stake, since the amount of dividends is most important to them, and they cannot influence the company's policy on the issue of payment of dividends).

The size of the capitalization rate largely depends on the stability of the company's income, if the latter has a steady growth in profit, a lower capitalization rate is chosen, which leads to an increase in the company's market value and, conversely, in case of unstable profits, the capitalization rate is increased.

The capitalization rate can be derived from the discount rate by subtracting the expected average annual growth rate of profit or cash flow (depending on which value is capitalized):

$$R_k = k_d - g$$

Where: R_k - is the capitalization rate; k_d - is the discount factor; g - the expected growth (decline) of profit or cash flow.

To determine the value of the capitalization rate, the same methods are used as for determining the discount rate.

Conclusion.

The business has a wide range of problems that need to be addressed and requires improving the quality of the assessment process. In Uzbekistan, the improvement of the mechanism for evaluating business objects is as follows in combination with a set of interventions should:

- to simplify the calculation of income by methods, create a special database for evaluators;

- there is enough information about analogue objects, the choice of statistical methods, the creation of assessment models and to receive conclusions based on them;

- a variety of assessment documents in the form of templates and samples; preparation and approval;

- development of evaluation software.

The above considerations, in our opinion, add value to the business. development of the market infrastructure for valuation services and the creation of an effective coordination mechanism and, most importantly, business valuation activities can ensure the sustainability of their position.

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