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METHODS OF EVALUATING THE ECONOMIC EFFICIENCY OF INVESTMENT PROJECTS

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Abstract:

This article describes the importance of investment policy in the development of the country's economy, the methods of assessing the economic efficiency of investment projects, analyzing the trends in the implementation of new investment projects and the support policy. Also, ways of further development of investment activities have been developed.

Keywords: investment, investment projects, efficiency, financial resource, value.

INTRODUCTION

In today's critical situation, there are a number of urgent problems facing us, such as ensuring macroeconomic stability in our country, raising the standard of living of the population, and reducing the level of poverty. The crisis processes in the financial and banking system cover almost the entire world, the inevitability of recession and economic decline, the limitation of the scope of investment activity, the decrease in the volume of demand and international trade, as well as the occurrence of serious social disasters affecting many countries of the world. is being confirmed.

As a result of the regulation of market relations, new requirements are emerging in the development of enterprises. When reforms and updates are implemented in practice, the final result may not be as expected or the expected result may be achieved later. Therefore, in the decision of the new economic system and relations, all sectors are supported by the government to the extent necessary, which ensures the effectiveness of the ongoing reforms and the successful implementation of investment projects, careful analysis and in-depth evaluation based on various methods of performance evaluation. characterized by dependence

ANALYSIS AND RESULTS

Making investment decisions is a very difficult task for any investor or business entity, and the main criterion is to increase the wealth of the investor and increase the value of the enterprise. Its factors are the growth of the company's income, the reduction of financial risk or production costs, and the improvement of the efficiency of the company's work.

Taking into account the experience of foreign countries, as well as the recommendations of UNIDO, the evaluation of the effectiveness of investment projects is carried out on the basis of two criteria, that is, through financial and economic evaluation. Both of these criteria for evaluating the effectiveness of an investment project complement each other.

Financial evaluation is used in the analysis of liquidity during the implementation of the investment project. In other words, the task of financial assessment is to determine whether the enterprise will have sufficient financial resources to fulfill its total financial obligations in order to implement the project within the specified time.

The economic evaluation is used to determine the potential ability of the investment project, to maintain the value of the funds invested in this project and to create a picture of their growth at a sufficient level. The figure below shows the main detection methods for each criterion and describes them divided into groups.

In countries with a developed market economy, it is normal to publish financial statements of enterprises through mass media or in various collections. Information on the financial status of companies can be obtained through these collections. In world practice, several methods for assessing the economic efficiency of investment projects have been developed, and they can be conditionally divided into two large groups:

- Simple (or statistical) assessment methods;
- valuation methods based on discounting.

The first group includes:

- Payback Period, PP;
- Accounting Rate of Return, ARR.

The second group includes:

- Net Present Value, NPV;
- Internal Rate of Return, IRR;

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- Profitability Index, PI;
- Discount Payback Period, DPP.

The method of calculating the payback period of investments, unlike methods based on discounting cash flows, serves to determine the period during which investments can be returned in nominal amounts. Accordingly, this method is based on the determination of the period of reimbursement of investment expenses made at the expense of income from the implementation of the investment project. If we understand the payback period more precisely, it is equal to the period of completion of the project or the period when the income from it is equal to the amount of investments.

The formula for calculating it is as follows:

$$PP = \frac{I_0}{CF_t}$$

here, I_0 - initial investments; CF_t the amount of annual cash income received from the implementation of the investment project. It represents the net profit, or the difference between annual income and expenses (without depreciation).

Thus, the payback period of the investment project, i.e., the time from which the proceeds from the project's implementation cover the costs incurred.

The financial and economic evaluation of any project is based on information about cash flows. It is impossible to evaluate the effectiveness of an investment project without having information about cash flows.

Since the evaluation of the investment project is done before the implementation of the project, the cash flow information is also planned in advance. The process of planning and accounting for cash flows plays a key role in evaluating the effectiveness of the project and has a significant impact on determining the real effectiveness of investment projects.

Methods of evaluating the effectiveness of investment projects based on discounting can determine the profitability, efficiency, usefulness and attractiveness of any investment project. But in some cases, it may not be necessary to use all methods in the evaluation of investment projects. The use of these methods should be carried out taking into account the specific aspects and characteristics of each project under analysis.

Although the methods of evaluating the attractiveness of the project cannot reveal all its features, they play a key role in determining the real effectiveness of the project.

Net present value (NPV) - the value obtained by discounting all incomes and expenses in a specific period of incomes and expenses at a fixed and fixed interest rate during the period of use of the investment object and represents the difference between them. Its essence is that the amount of annual net cash flow is brought to the initial year of project implementation for each period, and it will eventually manifest itself in the amount of money as net present value or net discounted income.

The formula for calculating it is as follows [1]:

$$NPV=\frac{CF^1}{(1+d)^1}+\frac{CF^2}{(1+d)^2}+\cdots\ldots+\frac{CF^t}{(1+d)^t}-I_0$$

$$\text{or: NPV}=\sum_{t=1}^{n}\frac{CF^t}{(1+d)^t}-I_0$$

here, NPV- net present value; d - discount rate; I_0 – initial investment; CF^t - cash flow received at the end of period t.

The discount rate criterion should be equal to the interest rate on long-term loans in the capital market or the interest rate paid by the borrower, in reality. In other words, the discount criterion should be the minimum profit criterion, below which it is considered ineffective for the investor.

The result of evaluating investment projects based on the net present value method, that is, if the net present value has a positive amount (NPV>0), then the profitability of investments is higher than the amount of the discount, in the case of NPV=0

the profitability of the project is equal to the discount rate (minimum payback criterion), if NPV<0, the profitability of the project is lower than the minimum amount.

In the first two cases, the investment project can be implemented. The first indicates that the growth of the investor's capital will be ensured, while the second indicates that it will neither increase nor decrease. In the third case, it does not allow to get the expected income from the project.

The net present value method can only quantitatively show the growth of the initial investment amount, that is, the investor's wealth.

However, quantitative changes and results alone will not be enough to determine the efficiency of investment.

When talking about the advantages of the net present value method of assessing the financial and economic efficiency of investment projects, it is necessary to emphasize first of all the widespread use of this method, its popular and widespread use. Because this method can be used in different

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conditions, and an effective result from the economic point of view will certainly be found. This method only answers the question of whether the investment project will affect the growth of the investor's wealth, and cannot be a completely correct criterion in the following cases:

- When choosing one of the investment projects, if their net present value is of the same size, the large or small investment costs for the project are not taken into account;

- When choosing one of the investment projects, if the payback period of the project with a large net present value is long, and the payback period of the project with a small net present value is short, the net present value indicator is taken into account, without taking into account the payback period of the investment, and this indicator in which project is higher, this project is considered effective, which means that this method is not absolutely correct.

Advantages of using the net present value method include:

1. Represents the value of the expected income from investments (shows how much the net cash flow from the project is from the initial investments);
2. The period of viability of the investment project and the distribution of project cash flows over time are taken into account;
3. The time factor is taken into account and expressed in current values;
4. The net present value indicator is additive over time, that is, it can find the sum of the NPV values of different projects;
5. Gives a forecast estimate of how much the economic potential of the enterprise (firm, investor) will change by accepting the investment project for financing, that is, how much the "firm's wealth" has increased;

This method corresponds to the most basic criteria for evaluating the efficiency of investment projects.

Disadvantages of using the net present value method include:

1. NPV is an absolute indicator, it represents the difference between the discounted income and expenses of the project, but does not take into account the amount of income and expenses of alternative investment projects;
2. Since it is an absolute indicator, it does not represent the profitability of the project;
3. The discount rate depends on the value;
4. The discount rate is assumed to be constant during the entire duration of the project, but the discount rate may change later depending on the change in economic conditions;
5. It requires specific long-term indicators.

Therefore, it is necessary to use other methods of economic assessment to determine the relative growth of investments and the level of its growth.

The internal rate of return method (IRR) is the rate of return when the discount rate of cash inflows is equal to the discount rate of cash outflows, or otherwise, the discount rate when the discounted value of the net proceeds from the project is equal to the discounted value of the investment and the net present value is zero. . To determine this indicator, the formula used to determine the net present value is used, and the minimum interest rate at which the net present value equals zero is found. This interest rate is called the internal rate of return method. This method is also referred to as the internal rate of profitability in the economy, the compensation or efficiency coefficient, and the marginal efficiency of capital investments.

The task of determining the internal rate of return is somewhat difficult, depending on whether the investment is made one or more times, the cash flows from the project are negative at least once or at the beginning, and the amount of these cash flows is not the same. is based on The formula for calculating it can be expressed in the following equation:

$$NPV=\sum_{t=1}^{n}\frac{CF^t}{(1+d)^t}-I_0=0$$

If the investment project requires continuous financing of financial resources for several years, then (IRR) can be expressed in the following formula:

$$\sum_{t=1}^{n}\frac{CF^t}{(1+d)^t}=\sum_{t=1}^{n}\frac{I_t}{(1+d)^t}$$

Here it is necessary to find the quantity d. The amount found is called the internal rate of return. This criterion shows that the net present value is equal to zero, and when the IRR amount is used to evaluate the efficiency of the investment project, it does not ensure the growth of the firm's wealth and does not depend on its decrease.

The IRR shows the expected profitability of the project and sets the limit of the maximum possible expenses, that is, the IRR shows the upper limit of the bank interest rate on the loan taken, when the amount above this interest limit, the project will generate income.

There may be cases where the investor himself can get a loan from a subject at a certain interest rate to finance the investment project. At this time, the expected result from the project must be higher than

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the interest for the loan, or the investor must also know the level of obtaining his intended profit.

Here are the conditions, that is, the rate of interest or profit for the loan, which is usually called the hurdle rate (HR). This indicator is compared (compared) with the internal standard of profit.

As a result of comparing IRR and HR, the following relationship is formed between them:

• if IRR>HR, the project is effective and it is accepted for use;

• if IRR<HR, the project is ineffective (harmful) and cannot be implemented;

• if IRR=HR, the optional solution can be accepted, or neither harm nor profit is seen from the implementation of the project.

Using this indicator:

• investment amounts are equal;

• the duration is the same;

• the level of risk is equal;

• in cases where the scheme of formation of cash receipts is the same, the comparison of projects on the level of usefulness facilitates the adoption of the right solution.

Methods of evaluating the effectiveness of investment projects based on discounting can determine the profitability, efficiency, usefulness and attractiveness of any investment project. But in some cases, it may not be necessary to use all methods in the evaluation of investment projects. The use of these methods should be carried out taking into account the specific aspects and characteristics of each project under analysis.

Although the methods of evaluating the attractiveness of the project cannot reveal all its features, they play a key role in determining the real effectiveness of the project.

CONCLUSIONS

In order to increase the volume of investments in the national economy on the basis of domestic investments, the following actions should be carried out:

• improvement of the existing mechanism in the national economy related to the conversion of savings into investment;

• attraction of monetary resources available in the hands of the population by commercial banks, whether in national or foreign currency, and providing them as loans to business entities;

• attraction of funds collected in the hands of the population to the investment process through the "Tashkent" stock exchange, etc.

In short, we will be able to solve many tasks related to the modernization and development of the national economy by developing effective investment projects in the country. Its implementation not only ensures the establishment of additional activities and production, but also serves to increase the well-being of the population and increase the wealth of the state, as well as increase its economic power, which shows the real level of society's life. it is also an important factor in solving many socio-economic problems in the economy.

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