International Congress on Economics, Management and Business Studies
Hosted Online from New York, USA
Date: 23rd June , 2026
Website: https://econferencia.com

STATISTICAL INDICATORS REFLECTING THE EFFECTIVE USE OF INVESTMENTS IN INDUSTRY AND A METHOD FOR THEIR ASSESSMENT

Choriev Tolib Azamovich
Doctoral student at Termez State University
ORCID: 0009-0000-3696-2680

Abstract

In the current conditions of increasing global competition and development in the world, the role of industry in the socio-economic development of the country and in providing the population with decent living conditions is great, and its development is of great importance. Industry accounts for 26.0% of global GDP and 23.1% of total employment [1]. Specifically, this figure is 24.4% in Germany, 37.5% in Norway, 25.2% in Poland, and 28.6% in Kazakhstan [2]. Industry also plays an important role in the socio-economic development of countries, the satisfaction of people's needs for high-tech products, and the growth of the state's export potential.

World experience shows that an important factor in achieving economic development is the optimal location of industry across the country's regions and the availability of necessary infrastructure for their development, and most importantly, investments in industry.

Increasing the efficiency of investment utilization in the industrial sector significantly influences the improvement of economic indicators in the industry and is considered an extremely complex multi-stage process. Therefore, to date, no single indicator reflecting the effective use of investments in the industrial sector has been adopted by any country or international economic organizations. This, in turn, requires identifying the factors influencing the industry's

production.

According to S.A. Zhivayev, various economic literature examines various factors affecting investment efficiency [3].

A. Qosimov believes that factors such as "the formation of an effective market economy, an increase in the population's standard of living, the creation of an innovative economy, and the diversification of industry and the economy" activate investment processes [4].

S.Yu. Glazev directly attributes the decline in investment activity to "mistakes related to the implementation of economic reforms, violations of intersectoral balance, and market freedom."

V.A. Dobrinin explains the increase in investment efficiency by the rational use of all production factors, a reduction in production costs, and an increase in labor productivity.

According to S.A. Zhakiev, it is advisable to classify the system of all factors affecting the efficiency of the industry's investment processes and to substantiate their impact on industrial efficiency.

In our opinion, it is advisable to use the following principles for the effective implementation and development of investment processes:

1. Directing the selected projects to high-efficiency sectors;
2. Joint implementation of strategic and tactical management objectives for investment activities;
3. Accounting for the level of investment risks in the decision-making process;
4. Widespread use of the results of scientific and technological progress;
5. Ensuring the consistency of changes in factors that interact with investment efficiency in investment activities;
6. Engaging qualified personnel in investment processes.

As a result of adhering to the specified principles, the efficiency of investment

processes in the industry increases, and the efficiency of this process is calculated as follows [5]:

$$ANI_{\partial} = ANI_{\partial 1} - ANI_{\partial 2} \quad (1)$$

Here: ANI_{∂} - additional net income from investments (soums);

$ANI_{\partial 1}$ - additional net income after investment (soums);

$ANI_{\partial 2}$ - additional net income before the investment is made (soums).

The effective use of investments in the industrial sector directly depends not only on the efficiency of investment processes but also on the effectiveness of the investment policy implemented at industrial enterprises.

In the industrial sector, one aspect of investment policy must take into account investment goals, while the other must also take into account the level of investment risk. Furthermore, in this regard, it is advisable to develop a balanced investment policy, the first step of which requires a professional approach to investment.

The effective use of investment funds in the industrial sector consists of improving the use of investment funds, shortening the construction period, directing investment funds toward urgent projects, reducing the cost of construction projects, utilizing highly qualified personnel, scientific and technical achievements, and advanced experience, and accelerating social development.

In global practice, the ICOR (Incremental Capital-Output Ratio) index (capital intensity of GDP growth) is typically used to evaluate the effectiveness of investments in a country. It is defined as follows [6]:

$$ICOR = \frac{\left(\frac{I}{Y} \cdot 100\%\right)}{\Delta Y\%} \quad (2)$$

Here: I - investments in fixed assets;

Y - GDP volume in the country;
$\Delta Y\%$ - GDP growth rate, in percent.

The lower the ICOR index, the higher the efficiency of using investments in the country's economic growth. Here, the importance of investments in the country's economic growth is high, as every unit of investment utilized allows for the creation of a volume of output higher than the previous level. This, in the current situation, requires further strengthening the attraction of investment into the economy.

The higher the ICOR index, the lower the efficiency of utilizing investments in a country's economic growth. This, in turn, indicates the low significance of investments in the country's economic growth; assimilated foreign investment and economic growth are not mutually coordinated.

The aforementioned ICOR (Incremental Capital-Output Ratio) index can also be used to evaluate the efficiency of investments in the industrial sector. In this case, using the network as an example, this formula can be written as follows:

$$ICOR_m = \frac{\left(\frac{I_m}{Y_m} \cdot 100\%\right)}{\Delta Y_m\%} \qquad (3)$$

Here: I_m - volume of investments in fixed capital in the industrial sector;
Y_m - gross industrial output;
$\Delta Y\%$ - growth rate of gross output in the industry, in percent.

Today, in practice, there are many ways to evaluate the effectiveness of investments, one of which is the rate of return on investments, ARR (Accounting Rate of Return). This rate of profit is determined as follows [7]:

$$ARR = \frac{PN}{1/2(IC - RV)} \qquad (5)$$

Here: *ARR* - efficiency of investments made in the industrial sector;
PN - average annual return on invested funds;
IC - the amount of funds invested within the framework of a specific project;
RV - the value of the residual value of assets.

As can be seen, the efficiency of investments is directly dependent on the average annual return on invested funds, and the greater its value, the greater the value of the ARR.

In this case, the degree of investment impact on industrial growth will be $0 \le I_{st} \to \max$. If I_{st} is large, the higher the degree of impact of investment in industry on industrial growth.

The significance of the industrial sector in economic development lies in the fact that it includes the production of metal products (spare parts, containers, and fixtures), as well as radio equipment for electronic and optical instruments and transmission devices. It is also responsible for the production of weapons and ammunition, as well as communication equipment (wired and wireless).

State investment policy in the development of the industrial sector primarily consists of a mechanism for regulating and supporting the organizational and financial process of investment processes. However, it is not the primary means of ensuring investment efficiency; in this case, investment efficiency depends on its technical composition and the share of innovations within it. The specific features of investing in the industry are characterized by the level of development of the industry, internal and external market relations, public income, convenience, and the development of transport infrastructure. In short, the set of integral indicators representing investment attractiveness is the specific characteristics of investing in the sector.

In conclusion, today, there is a system of indicators reflecting the effective use of

investments in the industrial sector and many methods for evaluating its effectiveness, which do not reflect a real assessment of investment efficiency. For example, investment profitability is analyzed and evaluated by comparing the amount of profit per unit of investment over time. However, the profit here is total, and the influence of other factors on total profit is not taken into account, so these methods are relative.

References

1. https://data.worldbank.org/indicator/NV.IND.TOTL.ZS
2. https://w3.unece.org/PXWeb/ru/CountryRanking?IndicatorCode=11
3. Zhigaryev S.A. Factors of increasing the efficiency of investment processes in mechanical engineering. // TERRA ECONOMICUS (Economic Bulletin of Rostov State University). 2009 Volume 7 No. 2 (Part 3). - 170 p.
4. Qosimov A. A. Analysis of state development programs (on the example of Surkhandarya Region) //Theoretical & Applied Science. – 2019. – T. 11. – C. 115-120.
5. Barannikov M.M. Effectiveness of investment processes and machine-building production. M.: Finance and Credit, 2008.
6. Pulatova M.B. Ways to effectively use investments in financing the foreign economic activity of industrial enterprises. Abstract of the dissertation of the Doctor of Philosophy (PhD) in Economic Sciences. Tashkent-2018. - 14 p.
7. Mikhailova E. A., Orlova L. N. Economic valuation of investments: A study guide. - Rybinsk: RGATA, 2008. - 75 p.