Principles of formation of mechanisms of state regulation of investment activity in the territory of the subject of the Russian Federation

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Abstract. The article proposes and formulates the basic principles for the formation of more advanced state legal and economic mechanisms for regulating effective investment activity, including comparability, continuity, complexity, profitability, adequacy and differentiation of real investment projects implemented at industrial enterprises in the region. The interrelation and interdependence of the degree of awareness of environmental problems in society, push and pull factors of influence on the investment activity of an industrial enterprise, its investment opportunities / potential / and risks are reflected. A new principle has been proposed, which we propose to put as the basis for optimizing and intensifying the economic and institutional regulation by the state of investment processes aimed at making long-term and short-term investments by investors in the development of economic activity, planning and practical implementation of promising and high-tech environmental projects - the principle of competitiveness. The fact is that attempts to implement environmentally friendly investment projects at existing industrial enterprises are faced with a mismatch between environmental and economic tasks, since large-scale actions to preserve nature and ensure environmental safety involve additional costs, which in turn will entail an increase in the cost of goods and, accordingly, reduce its competitiveness. It has been proven that ecological and economic tasks are absolutely equivalent and at the same time harmoniously complement each other. As a result of their interaction, a synergistic effect is formed, which should cause an increase in the competitiveness of the enterprise, since a fundamentally new development potential is formed, which, in addition to investment, also contains an environmental component.

1 Introduction

Scientific studies on the formation of mechanisms for state regulation of investment activities of an environmental orientation have shown the need for further improvement of the theoretical foundations and practical significance, which consists in the development of methodological provisions for the formation of more advanced mechanisms and a specific

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investment project for the introduction of environmentally efficient technologies that reduce dumping of the territory with waste and improve the quality of the environment.

The growing demand for environmentally friendly products, low-waste technologies is becoming important, the value of environmentally friendly territories is increasing not only throughout the world, but also in Russia. However, the problem of the economic development of industry at present is that the technological processes of most of them cannot produce the required products, and cannot reduce not only the consumption of natural resources, but also reduce the level of pollution of environmental components, reduce the amount of waste in the short term, since investment projects of an ecological orientation are highly costly. Hence, it is necessary to create two interrelated and mutually influencing processes, one of which is to improve state support for those investment projects that are most significant for environmental conservation and cost-effective. On the other hand, industrial enterprises must implement international and Russian environmental requirements and standards at all stages of production, product quality, and use appropriate raw materials.

One of the most relevant areas of greening the Russian economy is, in our opinion, the creation of environmentally and cost-effective production processes in accordance with the requirements of the global sustainable development model based on the formation of more advanced mechanisms for state regulation of investment activity. However, the processes of environmental protection are currently in conflict with the goals of successful economic activity of industrial enterprises and improving the welfare of the population, since in transitive conditions the main economic goal of making a profit comes from the assumptions that the material and natural resource base of the country is unlimited, and the ability of the natural environment take pollutants and waste is still very large.

Such an understanding contradicts the real situation, and even more so, the promising opportunities for the further development of industrial enterprises.

Thus, the investment activity of an industrial enterprise aimed at preserving the environment, reducing the level of load on its components is the result of the coordination of environmental, economic and social development goals, which are formulated on the basis of theories of social welfare, external environmental effects and competitiveness under the influence of micro-level environmental factors, created by such elements as resource providers, intermediaries, client markets, contact audiences, the macro-level external environment, including political, economic, demographic, social, scientific and technical, natural and cultural environments [1]. In addition, the activity under consideration is influenced by state mechanisms for regulating investment activities that meet the requirements of the concept of sustainable development of the national economy [2], as well as the market - allocation mechanism of spontaneous self-regulation, which reflects supply and demand in the markets.

The most significant impact on the development and implementation of the investment activities of an industrial enterprise of an ecological orientation [2] is the problem of the growth of transaction costs in the processes of interaction with elements of the external environment at the macro and micro levels, in internal harm. Such problems include the need to create information support and an information system that reflects modern, high-quality information about changes in environmental factors; adapting the management system to these changes; establishing green relations with market agents; creation of integrated links, sustainable management system; reducing the level of environmental pollution.

The solution of these problems is possible with the help of the functioning of rational, effective state mechanisms for regulating environmentally oriented investment activities.
The purpose of the study is to identify and formulate principles that contribute to the improvement of the legal and economic mechanisms for regulating investment activities of an environmental orientation in the territory of a constituent entity of the Russian Federation.

2 Materials and methods

The methodological basis of the study was the methods of system analysis, scientific generalization, mathematical statistics, economic analysis, expert assessments and scenario building.

3 Results and discussion

The optimization and intensification of economic, legislative, legal regulation by the state of investment processes aimed at making long-term and short-term investments by investors in the development of economic activity, planning and practical implementation of promising and high-tech environmental projects, is based on the observance of a number of principles, the key among which are:

- comparability,
- continuity,
- complexity,
- Profitability
- adequacy,
- differentiation [2].

The basic principle that determines the strengthening of the economic levers of state regulation of investment activity is the principle of comparability, the effect of which is to use a system of performance indicators to compare the final result and the amount of material, labor and other resources used to obtain it. The essence of the principle of comparability in the evaluation of investment projects is the need to comply with the actual costs of the investment project and the real benefit received.

When implementing environmental projects, the principle under consideration can be used by comparing the indicators of inflow and outflow of financial resources, which means that in this case it is necessary to determine the values of the total difference in the flow of real money $\Phi_i(t)$ and the sum of the differences between the inflow and outflow of funds, determined at each calculation step $A(t)$, according to the formulas [3]:

$$\Phi_i(t) = \Pi_i(t) - O_i(t); \quad (1)$$
$$A(t) = \sum_i^N (\Pi_i(t) - O_i(t)); \quad (2)$$

Where,

$\Pi_i$ - inflow of real investments from source I in time t, money. units;
$O_i$ - outflow of real investments from source i in time t, den. units

Consequently, the economic mechanism of state regulation should establish balances between the inflows and outflows of real investments, for example, in the entire industry, its branches, or in industry on the territory of the subject of the Russian Federation. In our opinion, the goal of the state mechanism is to ensure that the total difference in investment flows is equal to zero.

The principle of continuity means that the study of the possibility of obtaining environmental and economic effects [4], as well as the timely elimination of possible risks and costs, must be carried out throughout the entire period of the investment project, starting with preparatory measures, including a comprehensive study of the investment
object, its potential and technical and economic indicators until its completion. The principle of continuity is connected with the previous principle of comparability, since the real balance of investment flows is determined at each phase of the life cycle. In this case, the phase means the calculation step for solving the comparability problem.

The principle of complexity can be interpreted in two ways. First, it is necessary to improve the legal and economic mechanisms [2] of state regulation as a single complex, considering that changes in one mechanism should be accompanied by improvements in another. Secondly, the application of the "cost-benefit analysis" methodology will only make it possible to obtain real estimates when the study of resource flows entering an industrial enterprise, cash, including investment flows, as well as output flows of products, emissions, discharges, waste will be carried out comprehensively. At the same time, both incoming and outgoing investment flows - inflows and outflows - are subject to research.

The principle of profitability means using the calculation of net cash flow when assessing the inflow of funds invested in an investment project. The so-called net cash flow (NCF) is made up of the total amount of income and investment costs during the implementation of the project. This indicator can be calculated on average per year or divided into certain periods of the life cycle of the object of study.

An objective assessment of the costs of implementing an investment project and the resulting net profit is impossible without strict adherence to the principle of adequacy, which consists in the need to establish its actual cost, since environmentally oriented investment projects are not actually financed immediately, most often this happens systematically and in stages. In this regard, at each investment segment, except for the initial one, it is advisable to reduce the amount of investments in an investment project to its actual cost, if necessary with a gradual correction [5]. Accordingly, the amount of net cash flow is also given to the real value. Special attention should be paid to projects that are long-term, for which the observance of the principle will adequately allow real assessments to be made, taking into account the changing socio-economic conditions for the development of the regional economy, the level of inflation, and the exchange rate.

The principle of differentiation means the need for individual, differentiated approaches to the selection of a discount rate to bring certain indicators to the real value. At the same time, all specific features of an environmentally oriented investment project, including liquidity and risk indicators, should be taken into account.

Since the above principles for evaluating environmental investment projects are not able to fully cover all the variety of factors affecting natural conditions and the ecological situation, the question arises of the advisability of developing, in addition to the existing ones, special principles that take into account the directions of transformation of investment flows and the state of the environment and allow analyzing potential directions for the development of these transformational processes both in the near future and in the long term, moreover, on an ongoing basis and with the most in-depth research.

Speaking about the need to develop new principles, first of all, we have in mind the principle of competitiveness. The fact is that attempts to implement environmentally friendly investment projects at existing industrial enterprises are faced with a mismatch between environmental and economic tasks, since large-scale actions to preserve nature and ensure environmental safety involve additional costs, which in turn will entail an increase in the cost of goods and, accordingly, reduce its competitiveness. Meanwhile, we are convinced that environmental and economic tasks are absolutely equivalent and at the same time harmoniously complement each other. As a result of their interaction, a synergistic effect is formed, which should cause an increase in the competitiveness of the enterprise, since a fundamentally new development potential is formed, which, in addition to investment, also contains an environmental component.
Thus, in order to avoid a conflict of environmental and economic goals, it is necessary to launch an integration process of interaction between the legislative and economic mechanisms of investment activity, the common key task of which is to ensure the competitiveness of the sectoral and regional industry. Providing competitive advantages involves determining the potential for success according to the approach of M. Porter, who identifies three main areas for achieving competitive advantages - cost leadership, differentiation, and environmental leadership. Highlighting these areas, which are equivalent components of the competitive strategy, determine the integrated nature of state regulation of investment activity [6].

Within the boundaries of the competitive orientation of the activity of an industrial enterprise, the hypothesis of such investment activity as structure-conduct-performance should be used, in which competition, induced by the need to implement investment projects of an environmental orientation, is considered as a decisive factor in obtaining economic success by an enterprise. Based on the hypothesis under consideration, the growing interest of society and interested groups /stakeholders/, the population, the state in environmental protection, especially in connection with the possibility of Russia's accession to the WTO, as well as the growing need for environmentally friendly products, thereby influencing the structure industries.

Under the influence of the macro- and micro-level external environment, market conditions, industrial enterprises are forced to reconsider their activities in search of the potential for success, including an environmental component, to go out in their strategic innovations to new types of raw materials, technologies, that is, to an appropriate environmentally oriented investment strategy - conduct.

Initiated by environmental requirements, the reorientation of the activities of industrial enterprises should, in our opinion, be carried out as an investment strategy focused on meeting the requirements of environmentally minded groups: market participants, the public, politicians, the public, government agencies [7]. As initiating factors, one should consider the requirements put forward by the international community, state agreements, as well as market conditions within the country, in the region. Such factors are divided into two types - push and pull, which determine, respectively, two types of push and pull impact on the environmentally oriented investment activity of an enterprise (Fig. 1).

Push - the impact is expressed in the form of coercion and manifests itself in practice in the creation, in addition to the existing regulatory and legal mechanism of state regulation, of additional legislative acts that restrict the activities of an industrial enterprise in the region. Such acts include high requirements for the technical standards of equipment operation and production [8]. The emergence of such a push impact can take the form of a stochastic, unpredictable process that occurs in the external environment, and if the enterprise management system is not prepared in advance, then problems will inevitably arise of increasing investment costs for environmental protection measures, the use of environmentally friendly, but expensive types of raw materials, more environmentally friendly equipment, less resource-intensive technologies. In our opinion, the more unexpected for the enterprise the necessary transformations under the influence of changes in the external environment and the corresponding mechanisms of state regulation, the higher the costs for the development and implementation of new investment projects. At that time, a high degree of readiness for change, based on anticipation of situations, will reduce costs.

The increase in costs under the influence of pull factors and, accordingly, the inevitable limitation of the potentials of an industrial enterprise, including an investment one, is the motivation for the development of preventive programs and action plans focused on the introduction of eco-efficient technologies. Therefore, external pull factors include the emergence of new markets for eco-efficient technologies, markets for new raw materials -
waste, which has not yet been mastered by competitors and creates competitive advantages due to the availability of raw materials, its low price and high demand for finished products [9,10]. In addition, competitive advantages increase if competitors made miscalculations in their management system and did not focus on the implementation of eco-efficient projects in the process of investment activities. Competitive advantages include the image of the enterprise, a favorable attitude of the public, which are created on the basis of eco-oriented activities and increase the investment potential of an industrial enterprise.

Fig. 1. Factors push and pull impact on the investment activity of the enterprise environmentally oriented.

4 Conclusions

The formation of state mechanisms for regulating investment activity should be proactive. The main methodological provisions for the formation of more advanced mechanisms should include the formulation of the solution of problems that determine such areas of research as:

- development of international public opinion, awareness of the importance of environmental problems and the possibilities of improving the quality of environmental elements in the whole world, its regions, continents;

- trends in the creation of state standards for environmental quality management, the possibility and necessity of signing international agreements, the consequences that may arise in case of refusal to enter into interstate and international agreements, unions of organizations focused on improving the quality of the natural environment, preserving its potential, reducing the degree pollution;

- dynamics of changes in the level of environmental pollution on the territory of Russia and its regions as a whole, individual components in the present, forecasting the dynamics in the short, medium and medium term;
- the rate of natural increase (decrease) of the population of the country, its regions at present and in the future, life expectancy, the incidence rate of the population;
- the degree of favorable investment climate in Russia and its individual regions, the dynamics of development of the investment potential of the industry as a whole, its industries, individual regions;
- the development trend of the entire national economy as a whole, the dynamics of changes in the valuation of the national wealth of the country, its industries, regions, the degree of renewal and depreciation of fixed assets, the dynamics of changes in the capital intensity of products and capital productivity;
- development and prospects for changing the capacity of industry and regional markets, identifying market niches for the distribution of environmentally friendly products, the emergence of new types of raw materials, the possibility of using production and consumption waste as types of raw materials:
- development of innovative processes, the emergence of new technological processes, equipment, types of products with a high degree of environmental cleanliness;
- tendencies of changes in the conjuncture of international, sectoral and regional markets of manufacturers of similar, similar products, substitute goods;
- development of environmental legislation and the regulatory framework for investment activities in developed countries, international environmental acts, the possibility of tightening existing environmental legislation and the emergence of demand and supply for environmental pollution quotas in the regions of the world;
- the expected intentions of governmental, non-governmental parties, organizations in the field of environmental protection, determining the main strategic directions for the development of the national economy, its industries, complexes, territories in the short, medium and long term.

References