

# Synergetic Development Of Investment Processes

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**Abstract:** The article analyzed important feature of the theory of synergetic development of investment processes of regulation and self-regulation is fixed by the investment legislation of the Republic of Uzbekistan. Also described parameters characterizing their condition and the effectiveness of investment regulation and self-regulation mechanisms.

**Index Terms:** Development, fixed, efficiency, investment, mechanisms, processes, regulation, self-regulation.

## 1. INTRODUCTION

Speaking about the influence of heterogeneity of investments on the mechanism of formation of investment potential, it is necessary to note one side of investment processes. They are carried out by many business entities according to their own individual programs. Their main engine in the market is profit. But this kind of model was inherent only in the initial stages of development of market relations. With the development of society, a more and more gradual view emerged of the need to regulate economic processes. And he reached his climax in the command-administrative system [1,2,3]. The experience of competition between the two systems has shown the advantages of a rational combination of state regulatory influences with the provision of freedom and initiative for self-regulatory economic entities. This aspect acts as one of the central ones in the mechanism of formation of investment potential and its investment fields. And in this particular case, it would seem simple. It is only necessary to determine the share of state influence, and leave the rest to enterprises for self-regulation. But neither theoretically nor practically it is impossible to do this, because the investment process lives and develops as a living organism, constantly evolving and mutating, adapting to ever new political, economic and social realities. That is, in essence, the mechanism of investment processes was originally incorporated, its inherent contradictions between state regulation and self-regulation. And therefore, the effectiveness of the mechanism of formation of investment potential should not be determined by the shares and not "shares" of the participation of the state and the private trader in the investment process, but by the degree of coordination of the interests of society, the state and business entities themselves. In principle, this is as follows. The state, focusing on the state of the economy, sends a signal to market participants. The forms of this signal are diverse, but in any case they look like a normative act, be it a law, decree or regulation. The reaction to this government decision is always an individual coherent oscillation of primary economic structures. But when the signal amplitude becomes sufficiently large, a completely new process begins - individual uncorrelated investment waves are combined and the investment field itself becomes coherent. This phenomenon is

usually interpreted as improving the investment climate. At the same time, the role of the state is always emphasized, but it is completely overlooked that in reality this is a typical example of self-regulation created by economic entities themselves. Having received the initial external impulse, the temporal structure of the coherent investment wave arises without outside intervention. The chaos of concrete investment manifestations is being replaced by order. And this process can be defined as investment synergetic that determines self-regulation, or, more extensively, the spontaneous emergence and self-maintenance of ordered temporal and spatial structures of the investment potential and its investment fields. In addition to the administrative, legal signal, the state can use various forms of economic stimulation, that is, essentially a kind of "pumping" of investment potential. As a result, having received a real, or potential inflow of investment resources of sufficient intensity from outside, economic systems, as a rule, do not react linearly, but stepwise. In other words, the smooth growth of investment potential is replaced by its intensive development. We note in this regard that domestic economic science and practice, paying close attention to foreign investment, is universally limited to an analysis of their direct impact on the invested object. And this, in our opinion, is a pronounced one-sided aspect of understanding the role of foreign investment in the growth of investment potential. On the one hand, indeed, foreign investment increases the potential of a single object. And so it continues until their volume and direction of investment reaches a critical point. But after that, foreign investments themselves play the role of a stimulating signal, causing a wave-like increase in investment potentials in the economy as a whole.

Unfortunately, to date, this process has not been reflected in either domestic or foreign economic literature and it has not only not been studied, but so far there are no approaches to determining parameters that allow describing this complex behavior of foreign investments in a rather simple way, as well as choosing certain control parameters, when changed, the behavior of micro-investment systems changes significantly.

## 2 METHODS OF RESEARCH

However, foreign investment is not the only source of pumping up investment potential. It can be state funds, long-term bank loans, various types of tax incentives. These forms create the effect of sustainable investment fields in conditions of intensive external influx of resources. This approach to stimulation has also been known for a long time, but it has not yet been investigated from the standpoint of its synergistic effect. And this is not accidental, since the domestic economic science, according to the tradition of the planning and administrative

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system, still studies investment processes exclusively in a linear aspect and, at best, predicts the growth of investment activity based on regression models characterizing the linear development of past processes. Meanwhile, with appropriate organizational and stimulating recharge, investment fields can reach certain threshold values at which the investment process spontaneously, without any organizing influence from the outside, goes into an ordered state corresponding to relatively stable, intensively developing investment forms. In this direction, the most important results concerning the spontaneous appearance of ordered structures were obtained by foreign scientists by the beginning of the 70s. They are associated with the research of professor, Free University of Brussels, Nobel laureate (1977) I. R. Prigozhin and his co-author I. Stengers. They proved that under different conditions the same systems may exhibit different forms of self-organization.

In relation to investment processes, it looks as follows. With a smooth increase in investment resources due to the regulatory influence of the state, economic systems inevitably cross the "critical threshold", at which there is a significant intensification of all investment processes. To evaluate a similar transition, in physical processes I.R. Prigozhin developed a special model, which he called the brussellator [4,5,6]. It is possible that this kind of indicator can be obtained in the study of investment processes. But this is still our hypothesis, requiring research and verification. Nevertheless, the spontaneous growth of investment activity indicates the achievement of coherence in the economic interests of the state and local investment structures. Essentially, maximum convergence of phase trajectories of economic interests is achieved here, and this area is called an attractor in synergetic. In our case, under the category of attractor of investment potential, we, figuratively speaking, understand the "attractor" of investments. This concept, formulated by us, brings a clear theoretical basis under the popular, but qualitatively and quantitatively indefinite, amorphous term - "investment climate". And most importantly, the introduction of the concept of an attractor makes it possible to understand that it is not the state, but the investors themselves that shape the investment climate, under the influence of regulatory signals sent to entrepreneurs by the state. However, not all business entities follow the proposed investment strategy. Some of them are in the field of so-called "strange attractors" and commit arbitrary, not amenable to regular description and economic logic of wandering within a particular investment area. It is necessary to distinguish strange attractors of venture nature, focused on high-risk actions and shadow nature, on the verge of corruption and other criminal activity. And in this latter case, the regulatory impact of the state should take a different, not investment, focus. So, we have an investment business system that is open to regulatory, rather intensive government influence from outside. The system is understood as complex, that is, containing many elements — industries, regions, joint-stock companies, large and small enterprises that are in complex interaction with each other — and therefore investment processes in the system are built as mass cooperative processes. At the same time, we can consider it at the same time at the macro level as an integrity, described by a fairly simple set of indicators of state statistics, and at the micro level as a complex interaction of many business entities. In both cases, these investment systems are described by parameters characterizing their condition and the effectiveness

of investment regulation and self-regulation mechanisms. At the same time, the system should be open, because in market conditions each company and enterprise has the right to independently choose an investment direction. But the conditions governing the state limit the degree of freedom of business in obtaining investment resources and the direction of their investment. These restrictions are laid down in the legislative and regulatory mechanism of state investment regulation, forming the appropriate investment aggregates of the mechanism for forming investment potential. It follows that the investment processes are discrete in nature and their possible spectrum is limited by the state. Such, for example, are restrictions on the privatization of enterprises of strategic or defense importance, as well as enterprises that play a special role in social infrastructure. So, the state in the regulation of investment processes allows only a strictly defined set of ways that ensure the generation of investment potential. But at the same time, it supports areas related to expanding access to investment resources of a large number of entrepreneurs. The simplest and most affordable tool for this is to increase public awareness of investment processes. And this is also a regulatory tool, because by providing potential investors with the necessary information, the state sends important stimulating signals that can affect the processes of self-regulation in the business environment. In addition, in Uzbekistan there are three widely available competing information and legal systems Garant, Law and Norma, which provide full legal information about investment and other processes in the state. The formation of the so-called electronic government, reflecting the strategy and tactics of state regulation of economic processes, has begun. In addition to information, there is a large-scale preparation of the entrepreneurial layer among the population. In addition to the system of higher professional education, a number of foreign and private business schools, various courses and business incubators operate in the republic. Information and training is the synergistic beginning of the mechanism for forming investment potential. It inevitably leads each participant in the investment process to the corresponding attractor. Moreover, here under the investment attractor refers to the state of the investment system, to which it seeks in the process of generating investment potential. The paradox of the action of the investment attractor is that it largely determines the future state of the investment system. In other words, as far as the regulatory and self-regulating functions of the investment mechanism are coordinated and balanced, the investment process is so promising. Moreover, the spasmodic nature of the generation of investment potential upon reaching a certain critical point in the process of regulating the investment process is fully consistent with the universal law of dialectics on the transition of quantitative changes to qualitative ones.

### 3 RESULTS

Given the role of attractors as certain states in the process of generating investment potential, it is important to state the determining role of the state in the investment process. It is important to understand here that the main task of the state is not to determine the direction of investment activity of economic entities, but to create the necessary conditions for its effective development. We have already said that the most important regulatory function of the state is to determine the restrictions that eliminate the possibility of the development of

negative trends in the investment process. They are determined by law and regulate investment activity in both real and portfolio investments. Of particular importance at present is the privatization sphere, which is also associated with the social structure of society, forming a new class of owners. The second direction of state regulation is related to the creation of clear and transparent legal norms that determine the rules of conduct in the domestic and foreign investment markets. Much work has already been done in the Republic in this direction, but constantly changing conditions require the continuous development of this direction of state activity. The law establishes that the relationship between investors and participants in investment activity regulates their contractual relations. It follows that the state, while regulating investment relations, does not interfere in the economic activities of investment activity participants, as well as in their relations. The mechanism of state regulation is fully based on economic methods of stimulating the investment process. The modified bitumen binders proposed by us contribute to a significant change in this indicator, i.e. increase in viscosity and heat resistance with a quantitative change in the structure-forming composition of bitumen. The use of effective polymers, structure-forming surfactant additives that extend the plasticity interval, increase the viscosity and heat resistance of bitumen makes it possible to use low-viscosity oil binders in hot asphalt concretes and provide the necessary shear resistance of the coating.

#### 4 CONCLUSION

So is a fact the mechanism of regulation and self-regulation of investment activity fits into the basic laws of the theory of synergetic. It is based on the decisive role of self-regulation, complementing the processes of state regulation of investment processes. An important feature of the theory of synergetic development of investment processes is their stepwise activation during the accumulation of a critical mass of investment resources, which must be taken into account when attracting foreign investors and using state sources of investment resources. The correlation between the processes of regulation and self-regulation is fixed by the investment legislation of the Republic of Uzbekistan, according to which the state determines its role in the investment process, first of all, creating conditions for the efficient generation of investment potential, without interference in the economic activities of investment entities and their relationships.

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