

Socio-Philosophical Exposition of the Functioning of Large-Scale Economic Systems

Aibulat R. Yanguzin^{1, a,*}, Oleg A. Filippov^{1, b}, Albina A. Petrogradskaya^{2, c}, Dmitriy A. Karev^{2, d} and Tatiana S. Cherevichenko^{2, e}

¹Bashkir State University, Ufa, Russia

²Samara State University of Economics, Samara, Russia

*Corresponding author

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Abstract: The modern economic system is a multifactor bunch of stochastic formations whose determinism cannot be quantified due to the high uncertainty factor and synergetic consequences of the functioning of such systems. Obviously, from the time of Adam Smith, the postulates of the functioning of the economy as a whole require rethinking in order to understand the nature of processes and the formation of appropriate methods for studying processes. The deconstruction of the categorical and conceptual framework of the modern economic system is the requirement of the qualitative and quantitative transformations of modern society. The article discusses the systemic organization and content of the model of functioning of modern large-scale economic systems, as bearers of new traditions of economic knowledge.

1. Introduction

In many aspects, modern economic thought is based on the postulates of Adam Smith and the philosophical tradition of David Hume [1], as they are known to be fairly close in their worldview and, in particular, in their economic outlook on life. But the predominance of the technical and informational component in the systemic organization of modern public space requires the deconstruction [2] of an established understanding of economic reality. The works of the Nobel laureate in economics John Nash [3], the development of game theory, a systems approach, the system organization of Coulson [4], in many respects, not only contradict, but exclude as obsolete economic thought and philosophical views of that time. Is the emergence of new economic systems a requirement of necessity, not spontaneity? Thus, according to Adam Smith and David Hume, competition and the desire to earn income are the main incentive of a new entity, but in modern conditions the synergy of economic systems creates systems in which profit making and their materialized need are not primary. For example, alternative energy projects, projects subsidized by the state in the field of oil and gas production from shale formations, have appeared as an alternative to traditional methods of extraction and exploitation of energy resources, but at present they are not necessary and marginally profitable.

2. Methodology

The methodological concept of the research in this article is based on the deconstruction of phenomena, based on the principles and methods of a systematic approach. At the same time, the interdisciplinary isomorphism of the four main categories of the system approach is preserved, these are:

- Content of the system;
- System structure;
- Systemic conditionality of processes;
- External environment in which the system operates.

A systematic approach [5] to the study of large-scale economic systems currently has priority because it meets the requirements of the mathematical representation of the studied phenomena.

3. Results and Discussion

Let us consider the levels of the economic analysis according to Hume [6] and make an attempt to rethink the requirements of the present time.

The first level is the level of motivation to work, which consists of four elements of the desires of the subject of economic relations: to consume, act, diversify, make a profit. And here we can see that the so-called “desires” according to David Hume are quite contradictory to the traditions of modern society.

Undoubtedly, the desire to consume is evolutionarily determined; without consuming, the subject is physically doomed, and conditional consumption instinct is currently forming the concept of a consumer society. However, the excessive consumption of one individual compared to another is caused by his individual inclinations or imposed by the economic structure of society itself. If we consider the economic system as an open, dynamic system, then the current excessive consumption of subjects of economic relations is a consequence of the existing conditions for the functioning of the economic system, in which the very process of creating surplus consumption with a low critical assessment by the subject of the consumption process is due to the requirement of the system itself.

Indeed, in order to comply with the conditions of dynamic equilibrium of the system, it is necessary to create conditions for the expanded reproduction of systemic factors, which are possible only with an increase in individual consumption for economically developed systems and a decrease for regressive systems. From this follows a process of significant imbalance between the developed system and the regressing system (in which dynamic development is due to a decrease in scale). For example, the poorest countries in Africa in contrast to the economically developed countries of the West.

The desire to act contradicts with the previous desire to consume, so excessive consumption, as a consequence, leads to the indifference of the subject. The creation of the surplus value, as a basis of capital according to Karl Marx, is based on the application of physical or intellectual labor of the individual to the subject of labor, but excessive consumption and, very importantly, the automation of many areas of physical labor, in turn, inevitably leads to the indifference of the subject.

David Hume and Adam Smith did not differentiate in their economic views the desire to act: as an achievement in the process of creation and as an inert opportunity and desire for enrichment. For example, the subject of economic relations, which resells the product of labor of another individual (for example, algorithmic stock trading, oil contracts, etc.), does not use his labor as a basis, but uses the time factor of the redistribution of capital along the chronological axis. In this case, the subject does not demonstrate a desire to act, he does not create surplus value as such, but creates added value, which in this case is speculative and does not include the individual labor costs.

The desire for diversity in modern conditions is the desire to consume, and economic studies confirm this. In the 19th century, Gossen formulated the marginal utility theory, in which it was empirically proved that an increase in consumption by one unit of any good by an individual exponentially reduces the utility of this good for him. Then the more we consume, the less utility we attach to the object of consumption. In conditions of excessive consumption, it is impossible to increase the consumption of the same good, with zero utility consumption will simply stop, that is, the diversity of what we consume is necessary. Here, the desire for diversity is not independent for the subject, it is inextricable with and is determined by the desire to consume.

The desire to profit is systematically determined and regulated by the following: if we create excess consumption, we need to comply with the conditions of expanded reproduction in order to continue creating; this, in turn, requires adding value to the subject of labor in order to use it for creating new benefits. In general, the first level of economic analysis according to Hume or economic psychology does not withstand critical assessment of the current economic realities.

The second level, according to Hume [7], is the level of market relations, in which there are two main postulates:

- Interest and taxes: basic ideas here are that the amount of loan interest is determined by the size of the actual capital in the economic system, and increasing taxes stimulates labor productivity. These ideas for the economic system of that time were correct. Currently, with the development of new economic formations (exchanges, interbank information platforms) they need to be rethought.

Loan interest rate in modern economic systems is determined by the supply and demand for the interest on the exchange, that is, the capital itself is secondary in determining the loan interest rate. With the advent of such economic mechanisms as spatial and temporal arbitrage, loan interest has become an independent economic category, which determines the cost of borrowing and use of capital without taking into account the value of actual capital. That is, for example, the subject of economic relations, believing that the use of borrowed capital will bring him as a beneficiary an interest higher than the interest for the use of capital will agree on the loan interest rate without regard to the value of the actual capital. Today, an increase in taxes and an increase in productivity are a postulate that is not connected with a modern reality at all; contemporary economic relations are not determined by the final product of labor, but to a greater extent by the distribution and redistribution of the final product; this, in turn, is associated not with productivity, but with economic value added to the product of labor in the process of distribution and redistribution of this product (in terms of speculation).

- Money in circulation. According to Smith and Hume, the amount of money in a country is determined by production capabilities and the growth of the economic system. Here we agree that this postulate is also relevant at present, but with one remark: such instruments as cash equivalents and digital currency are not backed by production capabilities and actual economic development.

The third level is the level of industrial growth and the development of commerce [8]. This level of economic analysis is associated with the first level, the level of desires of a particular individual. Economic philosophy, which is based on the desires of the individual, does not take into account to a large extent the negative consequences of the realization of these desires, moral and ethical dilemmas. So, for example, the postulates of the theory of procedural justice, set forth in the writings of Thomas Hobbes [9] and John Locke, in our opinion, are more applicable from the moral, ethical and moral point of view to the modern realities of the functioning of economic systems.

Undoubtedly, the worldviews and discoveries of Smith and Hume for the economic system of that time were not just relevant, but served as an impetus for the formation of the economic structure of society for decades. However, the modern economic structure requires us, as researchers, to use the achievements of modern science for the philosophical rethinking of the principles of functioning of economic systems.

Thus, the Smith's postulate on free competition has not yet outlived, despite the brilliant work of mathematician John Nash and the development of the apparatus of game theory. The principle of competition, which is the basic law of the free market, is economically unsustainable in modern conditions. According to the game theory and a systematic approach to economics, the current economic relations in the system are a noncooperative game with a nonzero sum, where game participants (economic entities) operate on the concepts of optimal strategy and maximum payoff.

Nash convincingly proved using the mathematical apparatus that it is impossible to achieve the maximum result in the form of an increase in economic well-being, if all participants compete among themselves. If all entities compete with each other, then, under conditions of expanded reproduction, when producing additional units of goods competing entities bear significant non-operational costs on the price factor (dumping), marketing (advertising), etc. Ultimately, the maximum profit received by one participant is partially offset by non-operational costs, and the losses of the other participant are offset by lower costs for payroll, conditionally fixed costs, etc.

Maximum gain in a noncooperative game with a nonzero sum is achievable, if the so-called Nash equilibrium is achieved, which is possible only if the participants agree among themselves. It may be argued that these are cartel, oligopoly, and similar economic phenomena, but this is not so. The agreement between the participants is the coordination of operational and strategic decisions on

launching the product to the market and delivering it to consumers. Seen from a more global perspective, multinational corporations do just that when planning their actions and implementing a strategy. The opportunities opened due to the technological development of modern society should not be ignored in the process of scientific research of contemporary economic phenomena.

4. Conclusion

Modern society is characterized as a post-industrial or information society, the current economic system and the methods of scientific knowledge of the principles of operation of these systems should not lag behind from each other. This gap inevitably leads to the appearance of peak economic events that adversely affect the life of society as a whole. In this article, we made an attempt to modernize some the existing and established views about the functioning of modern economic systems.

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