

ON THE NECESSITY OF THE ACTUALIZATION OF SOME PROVISIONS OF MODERN ECONOMIC THEORY

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Abstract: Modern economic theory is still at the stage of formation of its own methodological base. However, some achievements of economic theory already require a constructive revision. The reasons for the necessity to revise the provisions of modern economic theory are identified by the authors. Each of the reasons noted herein is convincingly singled out in a separate methodological problem. Using the Heckscher-Ohlin theory (theorem) of international trade, it is shown that a formal approach to the economic research processes, which is encouraged by some criteria for evaluation of the "scientific nature" of the research, ultimately draws the economic science from the relevance in the research. Subjectivity and schematism (which in many cases takes into account a far from complete list of the essential characteristics of social and economic systems or the processes taking place in them), which, as a result, leads to distortion and falsification in assessment of the available facts, are also attributed herein to the reasons for the low relevance of the economic research results. The imperfection of the methodological base of modern economic theory results in the need for additional studies of the epistemological adequacy of the use of mathematical instruments in economics. The necessity of application of the interdisciplinary approach in economic research is shown. From the methodological point of view, the reasons for the need to revise some of the provisions of modern economic theory identified herein will increase the relevance of such provisions after their transformation by way of solving the problems stated.

Keywords: economic theory provisions, interdisciplinary approach to economic research, reasons for the necessity to revise some of the modern economic theory provisions, social and economic systems/processes.

1 Introduction

The trade wars, social cataclysms and economic crises that have become more frequent in recent years in the world community have led to the need to revise their mechanisms and causes. However, most of the existing theoretical approaches to the explanation of the nature of the processes taking place in the economy and society at this point cannot solve the problems noted above.

The need to revise the existing conceptual foundations of modern traditional economic theory emerged under the pressure of factual material, accumulated in the 21st century, which has no relevant explanation in modern economics. Unfortunately, so far, it has no universal conceptual apparatus for an adequate description of most of the social and economic systems and processes and, therefore, it is still unable to give practical recommendations on the choice of the path of their further development. According to Kaluzhsky, the problem of modern economic theory lies in the absence of a coherent system methodology for studying social and economic processes [1].

2 Methods

The problems of modern economic theory cannot be explained by the fact that social and economic systems are characterized by the non-linearity of their development, determined by a significant dependence on reasonable variation of initial conditions, the presence of alternatives in the paths of their development and the possibility of choosing from such alternatives within the current constraints of technological, institutional, resource nature. At the same time, the choice itself and the criteria for choosing the optimal path of development of a social and economic system from the great number of existing

alternatives are quite a difficult task, which often does not have a single solution. Moreover, as a rule, this decision-making process itself largely assumes the nature of a heterogeneous and heteromorphic subjectivity [2].

Investigating the factor of subjectivity in economics, and comparing this field of knowledge with physics, the famous physicist Bouchaud writes: "The applied results of the economic sciences are disappointing ... What are the achievements of the economy, apart from its inability to predict and prevent crises? ... Of course, according to Isaac Newton, it is much more difficult to simulate people's madness than to simulate the movement of the planets. But there must be statistical patterns in the behavior of a large number of people, like the ideal gas laws arising from the chaotic movement of individual molecules" [3]. In this quotation, Bouchaud illustrates, among other things, the mainstream of modern economic theory: an attempt to scale the existing factual material to fit the existing theoretical principles.

The economic theory is based on too strong assumptions, which for some reason quickly become axioms (for example, rational behavior of economic agents, the "invisible hand", market efficiency), despite the fact that most of these "axioms" do not withstand the testing by practice [3].

The plausibility of the above assertion on the low adequacy of the achievements of economic theory to the relevant needs of practice is also confirmed by the opinion of Polterovich, who argues that most of the existing methodological approaches in economics are identified as untenable in practice [4]. Discussing the limitations of modern economic theory, Polterovich writes that, although economic theory performs useful functions by creating the instruments for understanding reality, it is not always possible to use this tool constructively [4].

The conclusions made above [5] are supported by the following considerations:

- a significant number of scientific results of economic theory are often not supported by practice, which indicates the incompleteness or inconsistency of its initial provisions and basic models;
- most of the available research results turned out to be sensitive to reasonable variations of the initial theoretical hypotheses;
- quite often the revealed empirical patterns are not confirmed, and, on the contrary, are refuted by their further approbations.

Despite the undoubted achievements of economic theory, it is experiencing a methodological crisis, resulting in the necessity to revise its goals and to change the organization of economic research [4].

Leishvili went further in his conclusions: "it is becoming more and more obvious that not only the individual provisions, but the mainstream paradigm of economics requires the fundamental revision" [6].

Indeed, the evolutionary processes in the economy and society from time to time lead to the need to revise the existing theoretical concepts. This is due to the fact that most of these provisions were proposed at a certain level of technological development and under certain institutional constraints. But over the past decades, technology has advanced a lot, and institutions have transformed, which inevitably leads to moral obsolescence of most of the existing provisions of the social and economic sciences.

As can be seen from the above, so far there are many problem areas in the relevant provisions of economic theory. The definition of the causes of the untenability of some existing

economic theory provisions determined the direction of the research conducted in the work.

3 Results

Considering the problems of modern economic theory, it is necessary to dwell on the reasons for the need to revise its achievements from the relevant positions of practice. Several epistemological reasons are identified by the authors.

Reason 1. The evolution of theoretical views on the process under study or the event in the economy under the influence of new practical experience data: new empirical material, which is not consistent with the existing norms of economic theory, is accumulated over time in the economy.

"The economists were eager to "explain" the economic events as they are" [7], without taking into account the evolution of the achievements of science and practice. But modern scientific, technical, technological and institutional achievements in the practical activity of society resulted in the need to revise the existing "axioms" of economic theory.

Nobel laureate in economics Allais writes the following about the neglect of the evolutionary processes in society in the economic research: "In economics, as in any other science in each era, many positions often seem well established, and the postulates, on which they are based, acquire over time something like metaphysical holiness. Some theories, the fundamentals of which are at least controversial, are represented as proven truths. And their so-called perfection is never questioned anywhere, no one takes into account the facts that do not fit to the framework of these constructions" [8].

Davar also noted the need to revise the provisions of economic theory in accordance with the development of the real economy (the progress of human society) in such a way as to ensure the actual relationship between the theory and the real economy [9].

Many existing "axioms" of traditional economic theory are criticized convincingly and in sufficient detail (from the standpoint of modernity) [10]. Among the most well-known "axioms", reasonably criticized by Blaug from a methodological point of view, the following are worth mentioning: Walras's general equilibrium theory, Samuelson's revealed preferences theory, Lancaster's consumer characteristics theory, Machlup's company theory, the Heckscher-Ohlin international trade theory (theorem), Friedman's "natural" level of unemployment theory [10-17].

The Efficient Market Hypothesis (EMH) is widely used as such an "axiom" for urgent financial markets. The following most famous models using the EMH as a methodological basis are worth noting: Sharp's CARM (Capital Asset Pricing Model), APT (Arbitrage Pricing Model), Markowitz's effective portfolio theory, the Black-Scholes model for predicting the prices of derivatives [18-21]. The reasons for untenability of the EMH are considered in detail in [22].

But, if the axiomativity of the EMH, as the methodological basis of the models noted above, is reasonably criticized from the standpoint of modern practice [23], then the models themselves cannot be considered as an adequate tool for analyzing and forecasting market processes.

Let us consider in dynamics the mechanisms for the emergence of the need to revise the "axioms" of economics by the example of the Heckscher-Ohlin international trade theory (theorem) [15, 16].

According to Heckscher and Ohlin, the substantive essence of this "axiom" is the following: "the countries are not equally endowed with the factors of production – labor, land, and capital. Such differences determine the prices of these factors in relation to the production of a particular product. If a country is provided in abundance with one of the production factors, for example,

with labor, and, accordingly, it has a lower price, then in this country the goods, the production of which requires the factor, existing in abundance, in this case, the labor-intensive goods, will be cheaper. In the countries with an abundance of capital, the capital-intensive goods will be cheaper. In this regard, it is advisable for the countries with a surplus of cheap labor to produce and export the labor-intensive goods, while the countries with free capital but no surplus labor should specialize in the production and export of the capital-intensive goods and import the labor-intensive goods from abroad" [24].

According to Lindert: "The goods that require significant costs for their production (surplus production factors) or, on the contrary, insignificant costs (deficient factors) are exported in exchange for the goods produced using the factors in inverse proportion. Suchwise, the surplus factors are exported and the deficient factors are imported in the hidden way" [25].

At the end of the first half of the twentieth century, Samuelson showed (based on an analysis of the time period following the Great Depression in the USA, marked by the rapid development of transnational trade and, as a result, the changes in the international institutional system that determines the dominant international trade relations) that the international trade mechanisms influence the prices of production factors, which made an additional "contribution to the development and refinement of the Heckscher-Ohlin theory (model); therefore, it is sometimes called the Heckscher-Ohlin-Samuelson theorem. Samuelson proved that in the process of international trade there is an equalization of prices of production factors" [26]. Although Stolper and Samuelson did not directly indicate the influence of institutional mechanisms in international trade on the equalization of prices for production factors, nevertheless, the conclusions made the existence of such an influence clear [27].

In the 1950s, Leontief (based on the analysis of the time period following the Second World War, when the United States became the international trade leader), "during the study of the commodity structure of US foreign trade in the 1950s, revealed a trend that, contrary to the Heckscher-Ohlin theory, the US exports were dominated by relatively more labor-intensive goods, while the imports were dominated by capital-intensive goods. This result became known as "Leontief's paradox" ... It turned out that export goods required significantly more skilled labor than import commodities" [24]. According to Leontief, this paradox can be explained by the presence of institutional restrictions in international trade in the face of protectionism of American goods [28, 29].

In 1976 (based on an analysis of the cold war period, when the rapid development of technologies was supported by the arms race), Gablisch noted that the provisions of the Heckscher-Ohlin theory disregard the influence of technological changes on production and trade under the conditions of the scientific and technological revolution, as well as the economies of scale, in which the increase in production of goods leads to a reduction of the production costs, consequently, to a decrease in the net price [30].

Some weak points of the Heckscher-Ohlin theory were also revealed by Seltsovsky: "Firstly, this theory does not take into account the international mobility of production factors, but proceeds from the unlimited mobility of production factors only within the country ... In fact, recently the international movement of production factors is increasing, which is especially evident in the international movement of capital and labor. As for the unlimited mobility of production factors within the country, on which the Heckscher-Ohlin theory is based, here, on the contrary, in some cases the internal mobility of production factors is complicated. For example, the movement of labor within a country in an industry with higher wages, determined by world prices for the products of these industries, is often difficult due to problems with housing, social infrastructure, transport, etc. ... Secondly, the Heckscher-Ohlin theory assumes absolute competition and duty-free trading. In fact, as is well known, the international trade policies (tariffs, quotas) and other

protectionist barriers that increase the price of a commodity and impede its entry into international markets are widely used in international trade" [24].

The findings of Seltsovsky are based on the analysis of the achievements of the beginning of the 21st century, which is characterized by the development of transnational corporations and trade wars, determining the transformation of a system of factors (including the institutional ones) that affect the international trade processes [24].

As can be seen from the summary of the processes of revision of the adequacy of the Heckscher-Ohlin international trade theory (theorem), under the influence of the accumulated empirical material in the economy there was a transformation of theoretical views on the list and the importance of the factors affecting the mechanisms of international trade.

It should be noted that there were a lot of other attempts to make changes in the provisions of this "axiom" in the history of revision of the Heckscher-Ohlin international trade theory (theorem). Of these, the Stolper-Samuelson theorem, the Rybczynski theorem, the dynamic three-factor model of Jones should be mentioned at least [27, 31, 32]. But these attempts, as a rule, made technical changes (mainly an increase in the number of countries and factors considered in the model, as well as refinements in the used mathematical apparatus) within the Heckscher-Ohlin paradigm, and did not consider the problem in a complex, from the position of a systematic approach.

In the authors' opinion, the revision process of the considered Heckscher-Ohlin "axiom" will be continued. It is due to the fact that the emergence of new technologies (for example, blockchain) can lead to the transformation of the global financial system, as shown [33], which, in turn, will open new horizons for the revision of views on this "axiom".

The hypothesis of the epistemological importance of such retrospective studies of the genesis of the existing economic "axioms" using the achievements of the history of economic theory is confirmed [7, 34].

Reason 2. A formal approach to economic research processes, which is encouraged by some criteria for evaluation of the "scientific nature" of the research, which, ultimately, leads economics away from relevance in research.

According to Leontief, the imbalance in the mechanisms for assessment of the scientific significance of the results of American research in economics led to the fact that "the preoccupation with the imaginary, hypothetical rather than observable reality gradually resulted in a distortion of the informal rating scale, which our academic community uses to evaluate its scientific activities of its members. According to this scale, empirical analysis valued less than formal mathematical calculations" [35].

Similar problems can be observed in the modern Russian scientific and economic community [36, 37].

Reason 3. Subjectivism (first of all, the subjectivism of the researchers themselves [10]), schematism (which in many cases takes into account a far from complete list of the essential characteristics of social and economic systems or the processes taking place in them), which, as a result, leads to distortion and falsification in economic research.

An example of a schematic approach is the use of the term "rationality" in theoretical constructions as applied to decision-making processes in economics. Thus, investor rationality is one of the keystones of EMH construction, the review of which has been considered [22].

Reason 4. The weak development of the principles for the selection of source data and the problem of the adequacy of the choice of the applied mathematical instruments in economic

research, which, as a rule, leads to irrelevant results of such research.

This problem requires a separate in-depth study and will not be considered in detail herein.

Reason 5. The immaturity of cognitive instruments (research instruments) in the economy. Modern methodological approaches using the mechanisms of system analysis, chaos theories, fractals and synergy achievements are firmly included in the list of instruments used in economic research. However, the toolset approved in practice, which takes into account the specific methodological features of these approaches, as well as the identification of limitations in the mechanisms of their application, is still under development.

4 Discussion

Moreover, modern achievements in economics lead to the need to study social and economic systems and processes at an interdisciplinary level to increase their adequacy [38]. The lack of interdisciplinarity in economic research leads to the fragmentary nature of its theoretical provisions [39]. At the same time, the consistency of science is lost.

The nature of the fundamental problems of social reality, such as the functional structure of society, the organization of individual spheres of social reality, the structure and mechanisms of social interactions, the biological and psychological foundations of social activity and social interactions were studied rather deeply in the framework of individual specialized social sciences – psychology, sociology, political science, history. However, a significant amount of available theoretical developments, concepts, approaches and a huge array of empirical data in the social sciences and related fields still require a unified theoretical and methodological paradigm.

Due to the lack of a holistic perception and understanding of social processes, it is impossible not only to tie together the existing theoretical developments and to understand the accumulated empirical material, but also to solve numerous fundamental problems of modern social reality, such as crime, social deviations, gender and sexual equality, contradiction of personal rights and state interests [40].

For more information on the need to use an interdisciplinary approach in economic research, see, for example [10].

5 Conclusion

Surely there are a number of reasons for revision of the existing "axioms" and other achievements of economic science under the influence of accumulated relevant empirical material (primarily institutional, technological and behavioral).

For example, the institutional constraints that significantly affect the current content of the "axioms" also transform over time. This, in turn, can also serve as a reason for revising the existing provisions of economic theory.

But it is the subject of additional research, not included in the objectives of this work.

Summarizing the above, it can be concluded that the solution of large-scale, fundamental problems of society lacks the required methodological basis [41].

The additional studies, taking into account the above-mentioned reasons, will be able to contribute to the formation of a relevant methodological basis for the transformation of the existing provisions of economic theory in order to improve their relevance.

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