

The Neoclassical Economics Through the Prism of the Heterodoxy Economic Concept

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ABSTRACT

The heterodoxy economic concept provides an alternative approach to explore basic economic principles. The heterodoxy economy seeks to include social and historical factors in the analysis, as well as to assess how the behaviour of individuals and social groups changes market equilibrium. A heterodox conviction is also the belief that it is necessary to examine the reasons for deviations from market equilibrium rather than to analyze economic systems in a condition of static equilibrium. Therefore, the economic system must be explored in its entirety, including the three elements of the triad "nature-society-economy". In this report a special emphasis is placed on the economic principles that are characteristic of the heterodoxy economic concept and their differences with those typical of orthodox (conventional) economic theory. The orthodox conventional economic theory deals with the "rationality-individualism-balance" triad, with an emphasis on maximizing behaviour and rational economic agents who always strive to fulfil the conditions that ensure their equilibrium. Alternatively to the abovementioned, the heterodox concept focuses attention on the triad "nature-society-economy". This unity makes it possible not to separate the economic environment from the natural one. In this way, it is possible to neutralize one of the biggest market failures, namely: the study of the economic environment beyond the natural environment. The latter calls for the concept of sustainable development to be used in its four directions: sustainability of the economy; sustainability of society; environmental sustainability; institutional sustainability. The purpose of this report is to explore neoclassical economic theory through the prism of the heterodoxy concept and on this basis to reveal the main differences in the theoretical and methodological terms.

Keywords: Neoclassical Economics, Heterodoxy Economic Concept, triad „nature-society-economy”, triad „rationality-individualism-equilibrium”.

Tür: Araştırma makalesi

Gönderim tarihi: 17.03.2019

Kabul tarihi: 16.06.2020

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1. The emergence and development of the heterodox economic concept

Following the Neoclassical Revolution of 1870, several heterodox economics schools disputed the dominance of neoclassical economic theory. It is necessary to specify that the heterodox scientific fields of this period include different views on the behaviour of economic agents. At this stage of public development, a number of scientists from different professions first began to look for real reasons for explaining current socio-economic development. The emergence and adoption of the basic principles of Keynesian economic theory (especially those used as a recipe to handle unemployment) were perceived as a more coherent political response to a number of economic imperfections than those typical of the unorthodox concept (Тодоров, 2016, с. 56-75; Тодоров, 2017, с. 3-29; Тошкова, 2018). It is precisely the Keynesian views on monetary and foreign trade policies that contributed to reducing the interest in the heterodox economy at this historic stage of social development. After 1945, neoclassical synthesis has led to a clear division of the economic field of microeconomics and macroeconomics. This part of the economic community that did not support this synthesis was identified as a typical economic school defined as a heterodox.

Why does the heterodox concept arise? Generally, heterodox economists express dissatisfaction with conventional economic theory. The reasons can be grouped in the following way: firstly, whatever model to be built, if it is not analyzed in real terms, it presents the functioning of the economic system in an artificial environment, as the absence of real problematic situations implies a smooth development of the economy; secondly, this artificial environment distorts the principles by which economic laws are derived; thirdly, the assertion that economic agents always act rationally and develop in conditions of perfect competition; fourthly, rational use of resources always guarantees the achievement of an economic optimum and the economy functions at the limit of production capacity.

Heterodox economic theory focuses on studying economic processes through principles beyond the accepted for classical. The heterodox concept provides an alternative approach (an atypical approach to classical economic theory) for analyzing economic dependencies. In addition to the latter, heterodox economic theory seeks to include social and historical factors in the analysis, as well as to assess how individual behaviour changes the evolution of market equilibrium (Corsi et al., 2010, p. 1495-1529; Arnsperger et al., 2006). In this line of thought it is necessary to mention that the universal conventional economic theory deals with the triad “rationality-individualism-balance”, with emphasis on maximizing behaviour and rational economic agents, who always try to fulfil the conditions ensuring their equilibrium (Dequech, 2008, p. 279-302; Smith, 2008). Alternatively to the above, the heterodox concept focuses attention on the triad “nature-society-economy”.

Differences in the equilibrium of the economic system are essential. However, before the differences identified, due to the different approach used by the heterodox and conventional concepts, it is necessary to clarify the following aspects. First of all, what is meant by “progress” in both theories? For example, classical economic theory places emphasis on progress, but on the economy itself. Additionally, progress is seen as a natural element of the economic system and is defined as a one way process. In turn,

heterodox economic theory focuses on the speed of progress, not on its presence. Another important difference is the set of criteria by which progress is identified and analyzed. The conventional concept isolates the natural environment from the public and thus from the economic one. The latter is perceived by heterodox theory as imperfection, a theoretical and methodological failure that has a negative impact on established dependencies. As a result, the results obtained are unreliable and the lessons learned are difficult to apply in practice.

2. Distinctive features of the heterodox economic concept

Many economists believe that heterodox economic theory is „insignificant” and “inappropriate” with little or no influence on the majority of academic economists in the English-speaking world. The heterodox economy is a category of economic theories, which is a subject of great interest in contemporary scientific reality. The process of defining this concept implies an extreme precision and explanatory reality. Reflecting on the “heterodox economy” category, it is logical not to bind it simply to the term „unorthodox economy” (Dow, 2011, p. 1151-1165). The latter is inaccurate and problematic for several reasons. First of all, the question arises as to what it really means to be understood under the term „orthodox economy”. Secondly, should the orthodox economy be identified with the neoclassical economy? A number of orthodox economists remain closely associated with the neoclassical economy described by the triad “rationality-individualism-equilibrium”. Characteristic of neoclassical economics is the strict adherence to a concrete conceptual and methodological toolkit. Other economists are of the opinion that basic fundamental economic theory (classicism) should not be equated with neoclassicism as it develops in different historical periods and has quantitative inconsistencies in terms of theoretical principles and applied methods (Dow, 2011, p. 1151-1165).

The second problem area in defining heterodox economic theory as “unorthodox” is that it adversely affects the historical heritage left by economic theories. This means that the approach that determines neoclassicism as neoclassicism but “unorthodox economic theory” like the heterodox is the right one, since it is based on traditional economic theories (those created by A. Smith, D. Ricardo, K. Marx, J. M. Keynes, Fr. Hayek, etc.), but at the same time is their alternative. The theoretical concepts of the heterodox economic concept place emphasis on the alternative reading of traditional economic theories (Cronin, 2010, p.1475-1494). This does not necessarily mean that controversy and fierce discussions have to be made regarding old vs. new concepts. Rather, heterodox economic theory is a set of key principles, with an emphasis on putting economic reality into a real environment free of indispensable rationality and unusual conditionality in which economic individuals develop and improve (Mearman, 2011, p. 480-510; Lee, 2009; Lee, 2012, p. 337-351). In this line of thought, the more important features of the heterodox economic concept can be synthesized in the following way:

1. A set of methods is used to understand conceptual views of heterodox economic theory, forming a comprehensive methodological structure.

2. Economic subjects in heterodox economic theory are social subjects for whom deviations from rational behaviour are a common occurrence. They are driven not only by purely economic principles, but also by habits, cultural trends, traditions in behavioural patterns, as well as a number of intra-psychological factors.
3. It is characteristic of heterodox economic theory that economic subjects (both the individual and the group of individuals) are not analyzed in isolation and static. This means that the behavioural specifics of the individual economic agent (studied by microeconomics) and all individuals from a given national economy (studied by macroeconomics) are explored in a real and dynamic environment. The latter interacts with the natural environment. Thus, the analyzed economic agents, evolving under changing conditions, interact with the natural environment, forming the real social environment.
4. A typical feature of the heterodox concept is the understanding that economic systems are complex, constantly evolving and difficult to accurately predict. Therefore, equilibrium patterns need to be considered with a certain amount of doubt.
5. Characteristic of heterodox economic theory is the accounting of the factors “historical period” and “time”.
6. The heterodox concept emphasizes the fact that all economic theories may contain misleading claims as they analyze economic phenomena characteristic of a particular temporal period, currently considered as historical.
7. To avoid theoretical imperfections, as a result of the time-historical factor, heterodox economic theory recommends that the economic analysis be based on numerous perspectives and different points of view. This analysis should not separate the economic entity from the natural environment and analyze it “with equal other conditions”.
8. The heterodox concept uses different methods (not only mathematically and statistically) for data processing.
10. Heterodox economic theory relies on the concept of sustainable development, considered in its entirety, namely: the sustainability of the economy; sustainability of society; sustainability of the environment and sustainability of the institutions.

3. Orthodox economic theory through the prism of the heterodox concept

It is necessary to clarify that the emphasis on the differences between the orthodox and the heterodox economic concept hides its dangers, as there are unclear theoretical and methodological areas which are essential for the development of the economic system. First of all, it should be mentioned that the distinction between the two theories is based on different approaches. For example, the closed system approach suggests that all the dimensions used and the interrelationships between them are changing. They actually change in a pattern (i.e. in a predictable and logical way) and are subject only to formal mathematical logic (Dow, 2011, p. 1151-1165; Dow, 2000, p. 157-170). In turn, the

open system approach rather shows the evolution of the magnitude used. Thus, the relative magnitudes and the interrelationships between them cannot be so easily predicted by the use of formal mathematical logic. The open system approach examines the dimensions and analyzes them in dynamics. This implies constant quantitative and qualitative changes. The latter means that each period during which the relative magnitude is observed and its relation to the other takes different results, despite the same analytical methods used.

It is quite logical to consider the theory of partial market equilibrium (even the theory of general market equilibrium) as an organizational concept that unifies the orthodox economy. In such a case, orthodox economic theory can be identified as a set of partial and general analytical constructs, all directed towards a common goal: removing the prerequisites and conditions for achieving a common equilibrium and economic optimum. A number of auxiliary theories (e.g. game theory) are used to impart a number of processes, aiming at bringing the theoretical models closer to the practice-applied (Backhouse, 2000, p. 149–55; Santos, 2011, p. 705-728; Stilwell, 2012).

Undoubtedly, linking economic theory to the experimental economy has raised a number of doubts about the specification of the rational behaviour of economic subjects. Moreover, in the context of the new classical economic theory, the capacity for political decisions offered by conventional models is questioned (Kahneman et al., 2000). This is an interesting result, as a result of the desire to emphasize the truthfulness of the claims that the equilibrium states reflect the rational choice. The theory of rational expectations is a perfect theoretical model that can highlight the existing situations in which the economic subjects do not achieve maximum usefulness, as well as the factors that influence them and turn them into irrational individuals. But this does not mean that, on the basis of this theory, economic subjects always and necessarily (with equal other conditions) must act rationally without taking into account the influences of their environment (this also includes the historical period during which analyzes individual behaviour).

4. The idea of sustainability in heterodox economic theory

The theoretical and practical-applied foundations of heterodox economy are found in various concepts, including: post-Keynesian theory, Marxist theory, institutional theory, social theory, and eco-economics (Bortis, 1997). Heterodox theory focuses on problem areas related to transfer payments, the redistribution of wealth, the provision of equitable social mechanisms, the provision of full employment and the rational use of scarce resources and, above all, natural non-renewable resources. Therefore, as a field of research, the heterodox economy is concerned with explaining changes occurred in the evolutionary-natural process of building national wealth and its deservedly distribution (Lee et al., 2004, p. 169-99). In this line of thought, heterodox economics is an alternative concept that aims not to deny the dominant theory, but rather to supplement and enrich it. Special emphasis is placed on the relationship between society and the natural environment.

Increasing political and environmental discontent in the 1960s and 1970s failed to influence economic theory, and in particular the way social and economic systems were governed. It is worth mentioning here the ecology scientists who have played a key role in the growing recognition of the problems associated with the interaction between the natural environment and “Homo Economicus”. But does the human always act rationally and maximize its utility in consuming goods and services? In fact, the ecologists of practical necessity seek to link ecology to the economy without paying attention to the type of economic system and the dominant economic school (Chichilnisky, et al., 2000). The question then arises: What is the result of the functioning of the eco-economy? Realistically, the symbiosis between economics and ecology has created the eco-economy. The latter has attracted a number of renowned scientists (many of whom are disappointed by the failure of the environmental economy) as well as younger economists looking for new ideas in the social sciences (Barbier, 2007; Mihailov, 2012). Exactly this combination of different scientific understandings that has point out the need for the nascence of a new theory within the scope of economic doctrine, rather than simply the creation of political propaganda that the natural environment is as important as economic goals.

The idea is that economic theory, which isolates man from the natural environment and places him in the artificial one to maximize various economic activities and to achieve optimum, is not useful for the society of the XXI century. Despite the desire of the eco-economy to create a new understanding of ecology and economics, it uses the economic laws and principles of the market concept that creates it - neoclassicism. The latter separates the economic environment from the natural environment. This separation of interdependent elements has for many years formed one of the biggest market failures, namely: the division of the triad “nature-society-economy”. The emphasis here is placed on the need to study them in unity as a homogeneous aggregation. In support of the statement that the neoclassical concept cannot be applied to a theory that integrates the three elements of “nature-society-economy”, is the fact that this theory pays attention to the equilibrium state of the economy as a mechanism that solves only internal problems and does not looking for a solution to the global problem of that economic environment is in disequilibrium in the biggest part of its existence. The question then arise are these imbalances are actually more natural than the creation of an artificial environment of laws and principles (most of which are not applicable in practical reality) in which the dominant economic theory functions.

What is actually the problem of the neoclassical economic concept and is there an alternative theory more applicable to contemporary economic reality? Neoclassicism is the scientific concept that has formed the rules and laws of market economy functioning. Descriptively, this theory is expressed as follows: If the economy is resource constrained and human needs are constantly growing, it means that technology must provide a solution to this economic problem through the use of new substitutes and access to new resources. At the same time, if the environment is polluted, then a technology must be developed to clean it. But in any case, this technology will be expensive and society can only own it if it is rich enough (Spash, 1995, p. 279-293). Wealth, on the other hand, is a productive value of economic growth. Economic growth requires the exploitation of resources and degradation of the environment. This means

that at the same time as technological progress is wasting the Earth's resource potential, it also serves as a mechanism for its conservation and partial restoration, as a result of the natural process of development. Also, economic agents are in constant competition with each other in their quest of maximizing their economic activities (maximum utility and maximum profits). Namely, human competition creates the need to generate growth (Гечев, 2007). The latter, in turn, justifies to some extent the waste of a number of non-renewable resources and energy productivity as factors involved in meeting human needs (Kolev, 2010, p. 36).

As is evident from the aforesaid, each economic objective generating utility has its opposite in effect, another objective generating loss of utility (Миркович, 2004; Миркович, 2005). Therefore, the concept of a market economy is a theory of the action of opposite forces, inducing divergent in value results. In this dynamic conjuncture in which different individuals pursue their strivings, it is extremely difficult to achieve a balanced state. As it is well known, classical and neoclassical economic theories ground a balance in individual markets, observing a number of static laws, and most notably *ceteris paribus* (Smith, 1776; Marshall, 1890). In most of the real cases, the economic entity, acting as an agent in the market space, that does not think about these principles and rules and act on selfish motives (Михайлов, 2009). But always, whatever course of action individuals choose, they are never static and do not make economic choice by analyzing only one factor and the others remain unchanged (constant).

This whole situation puts the economy to function in an unrealistic, artificial environment, dividing the “nature-society-economy” trinity. Therefore, a number of economists express discontent with conventional economic theory (Тодоров, 2016, pp. 56-75; Тодоров, 2017, pp. 3-29; Тошкова, 2014, pp. 9-32; Тошкова, 2018). The reasons can be grouped as follows: First, whatever model is built, if it is not analyzed in real conditions, it represents the functioning of the economic system in an artificial environment, since the absence of real problematic situations implies a smooth development of the economy. Secondly, this artificial environment twists the principles by which economic laws are derived. Third, the statement that economic agents always act rationally and develop in conditions of perfect competition. Fourth, the rational use of resources always guarantees the achievement of an economic optimum and the economy operates at the limit of production possibilities. The abovementioned leads to the conclusion that there is a need to seek a new economic concept that does not renounce the dominant but complements it and is its alternative.

By using the heterodox approach in economic reality, a theoretical explanation of the historical process of social provision in the context of a market economy is sought. Therefore, the heterodox approach is concerned with explaining the factors that are part of the social provision process, including the structure and use of resources, the structure and changing social needs, and opportunities to reduce socio-economic inequalities (O'Hara et al. 2002 609-18). The latter serves as a basis on which to build heterodox understandings of ethical values, social perceptions and apprehensions of human existence. Heterodox theory makes recommendations for economic policy to improve social provision for all members of society, especially for disadvantaged people. The heterodox approach to economic theory is an alternative to dominant

economic thinking in explaining the scarce resource allocation process and the role of society in preserving natural capacity. Heterodox views on a number of economic processes indicate the urgent need to construct a coherent heterodox economic theory that supports economic policy that addresses the serious problems of contemporary society (Petri et al., 2004; Stevenson, 1987, p. 1471-93).

Each of the heterodox approaches is aimed at criticism in order to improve the basic theoretical propositions of the dominant theory. In this way, several critical proposals for an economic judgment in dominant theory are obtained. On the principle of overlapping and interweaving the criticisms generated by heterodox approaches, a massively critical mass is formed, rejecting major proposals that make up the content, structure and methodology of dominant economic theory (Colander et al., 2008, p. 31-42). The intellectual foundations of a heterodox economy are based on the traditions on which the wealth of nations and the social relationships between individual social groups are created. The heterodox approach also addresses the process of providing the flow of goods and services that society needs (Dow, 2011, p. 1151-1165; Backhouse, 2000, p. 149-55). This means that the heterodox view of the economy encompasses an important process - the process of social provision. The heterodox explanation for economic activities includes the human factor in the cultural context, social processes in historical times, patterns of consumption, production and reproduction. The heterodox approach emphasizes the historical process of social security in the context of market-oriented economies. Therefore, heterodox economic theory deals with defining factors that are part of the social provision process, including the structure and mode of exploitation of resources, the structure and changing social needs, the structure of production activity of enterprises, and the institutional environment of the state intervention in the economy (Colander et al., 2004, p. 485-99; Garnett, 2006, p. 521-46; Van Bouwel, 2004, p. 299-315).

One of the specific features of heterodox economic theory is related to the concept of sustainability with an emphasis on human impacts on the environment. J. Pezzey defines sustainability as a lasting utility for every member of society for millennia and beyond (Pezzey, 1992, p. 321-362). In fact, in his book from 1997 "Economy of the Earth" J. Pezzey linked sustainability to the acquired utility of the process of consuming goods and services over time (Pezzey, 1997). Another author, T. Page, in his work from 1977, links sustainability with preserving the production capabilities of the economy for the future. (Page, 1977; Page, 1982). In T. Page's definition, he outlines the concept of J. Page. Locke that the present generation has no right to destroy the opportunities provided by the natural environment, since it is not its property (Locke, 1960). The definition of the Brundtland Report links sustainability to development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED; Brundtland et al., 1987).

The literature review on sustainable development allows us to identify the most appropriate model for analyzing the problem of sustainability, which is, in fact, a model for which a limited resource is used for production purposes. Given this characteristic of the problem, Nobel laureate Robert Solow criticizes those ecologists who insist that we must conserve resources for future generations. According to R. Solow, this is too

narrow a way of solving the problem. What has to be done is the obligation not to bequeath the resources of the next generations, but rather to implement certain standards of consumption in the context of generalized production capacity. (Solow, 1986, pp. 141-149). In addition to the above, R. Solow adds that future generations will not be interested in their bequeathed resources, but in the pursuit of the ability to use these resources properly to meet their needs. In order to make the distinction that R. Solow makes, it is necessary to believe that the present generation has the capacity to inherit from their heirs something that is a substitute for non-renewable resources (Solow, 1986, pp. 141-149).

As is well known, the concept of sustainability stems from the ethical concern of the present generation towards the future. This theoretical framework also contains an assessment of the facts that suggest that such concerns should be included in current decision-making, including decisions concerning both consumption and production and, to some extent, distribution in the economy. Emphasis is placed on the use of non-renewable resources in the production and construction of such models in the behaviour of economic agents, which clearly emphasizes the role of the dangers faced by humanity and the environment. The introduction of “sustainability” as a variable in economic models is linked to “caring for future generations” and should not become a mere limitation of current planning. According to a number of researchers, considering the use of non-renewable resources in the manufacturing activity, maintaining steady consumption is practically impossible. Therefore, sustainability policy is reflected in the following statements:

1. Sustainable means this state of the economic system with no major deviations in production and consumer models over the years.
2. Sustainable is the state of the economic system in which resources are managed in order to preserve the productive capacity of the economy in the future.
3. This state of the economic system is sustainable, in which the actions and measures for the conservation of natural capital do not differ in time.
4. Sustainable is the state of the economic system whereby resources are managed in such a way that sustainable use of ecosystem services is maintained.
5. This state of the economic system is sustainable, with the minimum conditions for the sustainability of ecosystems over time.
6. Sustainable development can be seen as building consensus and institutional social development.

The six concepts presented above combine the efforts of economists and ecologists to find the exact definition to describe the complexity of the concept of sustainability. As can be seen, the synthesized definitions of purely economic, coupled with the observation of consumer and production models and the pursuit of their permanent state over the long term, move to eco-definitions that understand sustainability as resource conservation for future generations and establish a constant amount of ecosystem services used (Bác, 2008, p. 576-580). It can be concluded that, regardless of the point

of view (economic or environmental), sustainability encompasses different theoretical frameworks that present it as a real problem of governance.

5. Conclusion

By its nature, the heterodox economy is based on the principle, the economic analysis is carried out in a real environment and the economic entities are part of the natural one. This means that, inherently, the heterodox economic concept does not deny the classical one, but rather challenges some of its theoretical-methodological models and is its modern alternative. Heterodox economic theory focuses attention not on unrealistic conditions in the context of modern social development but on real quantitative and qualitative measures of growth. The latter should not be perceived as constantly present in the economic analysis, but should be changed (as a type and number) depending on the state of the natural factors that determine the social development, and in turn the logic of the economic development it-self.

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World Commission on Environment and Development (WCED).

ACKNOWLEDGEMENTS

Some parts of the paper have been presented at the Fifth International Scientific Conference on Knowledge Based Sustainable Development – ERAZ 2019.

ACKNOWLEDGEMENTS

This document was supported by the grant No BG05M2OP001-2.009-0034-C01 "Support for the Development of Scientific Capacity in the University of Forestry", financed by the Science and Education for Smart Growth Operational Program (2014-2020) and co-financed by the European Union through the European structural and investment funds.