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Theory of Economy as the Original Cause of the World Crisis

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ABSTRACT

A growing debate around the active role played by the neoliberal ideology and the economy connected with it in the crisis development. The polarisation of researchers in this area is quite significant: starting from the negation of this role to its complete affirmation. This analysis is aimed at contributing to the aforementioned debate, putting forward the following hypothesis: historical development of mainstream economics and its influence, to a considerable extent, determined the outbreak of the large-scale crisis. In the analytic part, I look into some aspects of economic methodology, both orthodox and heterodox, taking my own position on the basis of important literature. Criticism of the traditional paradigm and a review of innovative trends in research do not show a straightforward road, however, which imposes a moderately optimistic outlook on the future, especially as regards the application value of the theory of economy.

KEY WORDS: global crisis, methodology of economy, traditional and new paradigm

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Introduction

The literature is dominated by the opinion that economy does not develop evenly, going through periods of stagnation or even a crisis, and on other occasions, quite the opposite - through periods of accelerated development. At the same time, it would be difficult to prove that economic progress and changes in economic dynamics are synchronized. The situation is all the more complex due to the fact that even in periods of extending the scope and method of economy (its evolution towards heterodoxy), it is subject to attacks, which, however, are not always professional. This is what is happening now, when the world is rising from the global economic breakdown and connections between the economic theory and the development of events are assessed in a thorough and strict manner. Apart from emotional and strongly ideological approaches, there are also the ones based on a sound, scientific base. In an attempt to order them, these approaches can be defined as technical and economic, nihilistic and historical.

The first of these actually disregards the influence of economic sciences on the onset and development of the crisis in the USA and, subsequently, in the world. Representatives of this approach (e.g. Taylor, 2009; Claessens, Dell'Ariccia, Igan & Laeven, 2010; Laeven & Valencia, 2010) think that technical phenomena played the decisive role among the causes of the crisis: expansive monetary policy, globalization of financial markets, unprecedented debt constituting the source of mortgage funding and their securitisation. Actually, the exposure of certain psychological traits of Investors - greed, underestimation of risk or herd behaviour, constitutes the only exception in this approach, as the

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psychological aspects are accounted for by the theory of behavioural finance (Szyszka, 2009). All doubts about the dispute about the role of the theory are dispelled by Rosati (2009, p. 316) who states: "...I reject political and propaganda opinions according to which the crisis is mostly caused by excessive presence of the state in the economy or the lack of it... In particular I am trying to show that the present crisis is primarily caused by incompatibility of regulation and supervision systems and risk assessment methods..."

The nihilist approach to the relations between the theory of economy and the dynamics of economy consists in the assumption that although the paths of the development of science and practice sometimes cross, such coincidence occurs rarely, which is why it is not worth trying to find out to what extent the evolution of the economy contributed to the global crisis (Wojtyna, 2008, p. 9). Fiedor (2010, p. 454) expresses his opinion more bluntly when he states: "...economy is not "before" or "after" the crisis, but during its normal process of development..., it is "late" as regards the extent to which important economic, technological, civilization and cultural processes and trends have been recognized in theory and addressed in the economic policy." Hence, the conclusion that since the influence of economics on the economic reality and its predictive ability are small, studies in this field and their influence on the economic cycles are not justified.

The historical approach to the relations between the economy and the development of events, on the other hand, is based on the conviction that the causes of the contemporary crisis are much more deep-rooted and they are not only limited to technical ones (Krugman, 2007; Colander et al., 2009; Żyżyński, 2009; Kołodko, 2010). Representatives of this approach argue that the actual cause of the crisis should be looked for in structural changes, which occurred in the global economy over the past few decades and have their bases in the mainstream economics.

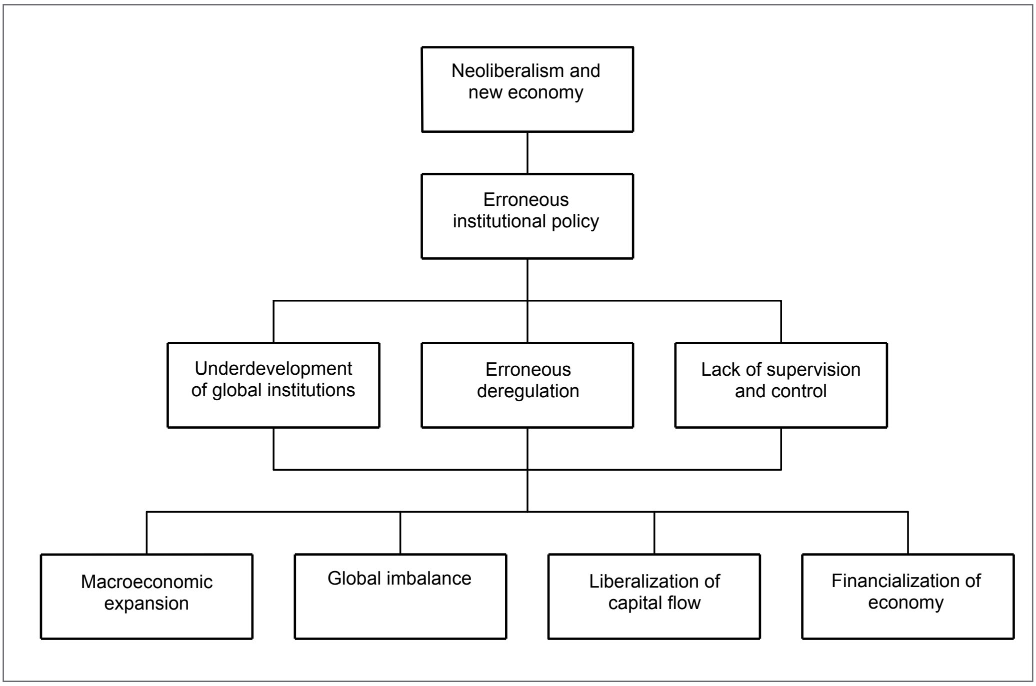
The technical-economic and nihilist approaches raise doubts, although each of them does so for other reasons. As far as the former approach is concerned, it is difficult not to agree with the claim that excessive expansion of mortgage loans, underestimation of risk, and rapid development of financial engineering was a significant impulse for the economic crisis in the USA. In a broader geographical context, on the other hand, is the extension of the channels for free and almost immediate capital, which promoted the contagion effect. Even the most in-depth analysis of these causes of the crisis does not make it possible to answer the question why the intensification of the aforementioned phenomena occurred at a certain period of time and with sufficient strength to cause an abrupt economic breakdown on an unprecedented scale. It is also worth giving some thought to the greed commonly arising among investors and managers, which constituted the main driving force behind their actions (especially in the USA), dispelling doubts around the reasons for the carefreeness of the regulators supervising financial markets. Representatives of the technical and economic approach avoid this kind of reflection by definition, which makes their diagnoses and recommendations shallow and they do not guarantee the prevention of crisis occurrence in the future.

The nihilist approach can be understood, among other things, as an attempt to defend the economy against the attacks of the proponents of the so-called alternative economics or, in other words, "anti-economics" (Coyle, 2007), who blame the economics (especially mainstream economics) for causing the global breakdown by undermining its scientific value. This attempt can be understood in as much as quite a few (if not, the majority) of the antagonists who use parascientific arguments, pushing their conclusions to the verge of absurdity (e.g. capitalism has ultimately exhausted its economic possibilities). However, the nihilist approach still gives rise to a discussion: for example, it is not known exactly what the "normal" process of scientific development" or "being late" in the area of accounting for reality mean (is it about the future or perhaps about the past?). A more serious objection concerns the suggestion that the paths of economic development and practice often stay out of touch with each other, which can be interpreted as the limited strength of the influence of the science and economic principles on the reality. And this stands in open contradiction to historical facts: it is enough to recall the Keynesian revolution, which did away with the classical Say's Law of marketing, creating the basis for modern state intervention over a few decades (e.g. Japan, France, South Korea). It should also be remembered that the neoclassical supply theory was introduced in the 1970s, based on the neoliberal ideology, which resulted in economic experiments in Great Britain and the United States. However, mainstream theories truly flourished in their interaction with the third phase of globalization (especially in the 1990s and later), giving rise to quite new qualitative phenomena.

1. Primary and secondary causes of the crisis

The weaknesses of some research approaches presented above justify the application of the historical approach, the representatives of which analyze the formation of fundamental, primary causes of the global breakdown from a long-term perspective. The fact that, in the course of time, they have generated secondary causes, which directly initiated the symptoms of the global financial and economic crisis, are their characteristic features. Therefore, the first step in the research procedure included the determination of the structure of dependencies between these causes (Fig.1).

Figure 1. Dependecies between causes of the global crisis



Source: Own study.

By adopting intellectual consideration as the primary cause of all economic events, it should be pointed out that liberalism constitutes the beginning of the future disputable, and as it will turn out, thought constructs. As it is known, it became part of the Enlightenment thought and it concerned political and economic conditions of social life (Hayek, 1982, p. 119). Classical economics developed on the liberal grounds and it created the institutional system enabling free activity of entities and at the same time, it made it possible to reach the economic and social optimum in the form of effective allocation of resources and fair division of income. However, in the course of time, liberalism, without losing its faith in the market and the freedom of the individual, evolved towards an idea of stressing the necessity of solving also social issues, which was reflected by, among other things, concepts of the protective state and social market economy.

Neoliberalism was not a consequence of linear development of liberalism; the former became a new quality in response to the challenges of the third phase of globalization (Harvey, 2005, pp. 19-36). The beginnings of neoliberalism should be looked for in the Mont-Pelerin Society founded by Friedrich von Hayek in 1947 (bringing together renowned scholars, such as Ludwig von Mises, Milton Friedman and Karl Popper). The society's intellectual achievements provided the answer to economic problems in the 1970s, i.e. the stagflation and excessively developed *welfare state*, which could no longer be eliminated by Keynesian economic tools. Monetarism and supply-side economics were born with the ideas of free-market economy and constitutional guarantee of private property, liberty and open society as their basis, while social liberalism gave way to market liberalism: since that time, work efficiency has become the determinant of income (concessions for social transfers were treated as an interference in the economic operation).

The final victory of neoliberalism in the 1980s and the mainstream economics connected with it was so convincing that this intellectual construct was granted the patent for the only possible and correct interpretation of the world of economy. In other words, it was decided that neoliberalism expressed the natural order of things (cf. the There is No Alternative slogan, abbreviated as TNA), which constituted the basis of economic policy in developed countries and economic programmes of international organisations. In the American economy of the 1990s, neoliberal ideas were additionally enhanced by journalists, big business and think-tanks (e.g. Heritage Foundation, Cato Institute), and were also - allegedly - positively verified by rapid and stable growth (allegedly, as no cause-and-effect dependency between neoliberalism and the development of information technology stabilising the growth was identified). At that time, few people were capable of signalling the embers of crisis.

The neoliberal ideas were transferred to social and economic entities by formal and legal institutions, and they were formed, as always in the case of doctrines, by political, economic and cultural elites (Morawski, 2010, p. 90). The establishment of formal institutions is difficult as it brings about the necessity of selecting instruments appropriate for their implementation. Moreover, the definition of formal objectives is troublesome as it is connected with the aggregation of interests of the most important groups and selection of their representation. The use of common interest is the most effective solution in this area (which actually was the case in practice).

It is the task of state authorities to conduct institutional policy (which is sometimes called systemic), within which they determine their functions and role in the economy and also establish institutional principles of the ongoing operational policy: i.e. monetary, fiscal, industrial policy, etc. The ongoing policy can be changed on the short- or medium-term basis and it is conducted within the currently existing institutional framework, imposing the particular rules on all entities, both domestically and internationally.

The aforementioned common interest met with a favourable response in relations between the state and corporations, i.e. capital, which is generally regarded as the great master of the third phase of globalisation (Szymański, 2009). These relations are often treated as a game between two entities with a zero sum, in which the capital is the winner. Now, we are just a step away from concluding that the national state is in retreat and the world is controlled by anonymous (market) forces, which are supranational in character (Bauman, 2000). A suggestion that the state fell prey to the capital is hidden behind this thought, while, in reality, in 1990s, a symbiosis occurred between the neoliberal vision of the establishment with the capital's natural striving to find the So. The state gave way to the capital in a largely conscious way, thus intensifying the common sense of uncertainty, which was an understandable reaction to the situation deprived of clear control mechanisms. Insofar as the aforementioned symbiosis served well the creation of new formal institutions, it proved disastrous for future economic processes.

Common interests facilitating the creation of global institutions did not occur between states, which was caused by several factors. Firstly, it is the state that creates institutional (legal) policy through its political representation, both domestically and in the international arena; this policy is the basis of its operation, both in the political and economic systems. Secondly, the country is irreplaceable in the role of guarding national interests as much as it is possible and necessary globally (main players are the USA and China) and regionally (in the latter case, it is possible to refer to the example of difficult negotiations during several EU summits). Thirdly, there is not a single universal model of regional and global modernisation, the national state (although its influence is limited) still takes care of the historical social and cultural identity, which has its place also in the world of economy. Culture, which is called global, does not have to be and is not Anglo-Saxon culture (or even Western culture) - it is rather a hybrid creation assimilating elements of various origins.

In summary, it can be stated that two tendencies, which are contradictory and, to some extent, have occurred at the present phase of globalisation: the positive base of the capital for institutionalisation falling within the neoliberal doctrine, and, simultaneously, conflicts between interests represented primarily by the main players, which made the institutionalisation process considerably more difficult. This brought about subsequent negative phenomena, which were connected with each other.

The first of these was called "systemic provisional measure" by Szymański (2009, pp. 30-31) or, in other words, incomplete globalisation. It means that a gap occurs in world institutions, there are no rules, which would regulate the behaviour of the individual countries as well as individual market participants (including corporations, banks, investment funds) in a sufficiently precise manner. Market economy on the global level does not have the supreme political authority or a set of legal regulations. This is just a step away from concluding that the existing provisional measure must come down to chaos, contractions, instability and crisis phenomena.

While agreeing with the author on his fundamental assessment of the aforementioned phenomena, a few critical remarks must be presented. Firstly, the term "systemic provisional measure" he used (does it refer to the institutional system?) appears to be too far-reaching, especially in view of the existing articulation channels and clashes of interest on the international level. Secondly, both terms used by Szymański may lead to the false conclusion that it may be possible for humanity to arrive at some mature (institutional?) system and to ensure complete globalisation by establishing a global government, and, if not a global bank, then at least global coordination of the monetary policy (Rybiński, 2007) in the future. However, this will not be successful precisely because in social sciences, a diversity of modernity is accepted as well as numerous roads leading to it, so it will not be possible to build the so-called international community (Eisenstadt, 2001).

Erroneous deregulation was another phenomenon, which contributed to the outbreak of the global crisis, especially in the area of financial markets. The so-called first Basel I Capital Accord of 1987, which was aimed at forcing banks to limit the loan risk, is a paradoxical example here (Koronowski, 2009). In reality, however, it turns out to be erroneous deregulations as a result of a legal loophole in the Accord, American banks developed off-balance sheet transactions, i.e. items in derivative instruments and securitisation. Owing to the latter, lenders did not bother about loan repayment anymore.

More spectacular examples of erroneous deregulation also come from the American economy. The president of the Central Bank (Fed) Greenspan, who was the proponent of far-reaching freedom of financial markets, started to seek the abolition of the Glass-Steagall Act, which had been passed in 1933 by the Congress already held in 1987. This was aimed at eliminating pathologies of financial markets revealed during the Great Depression. Finally, the act was abolished in 1999. As a result, banks started to grant loans to profiteers and consolidation as well as mass securitisation of risky loans occurred. Unfortunately, these phenomena coincided with lack of supervision and control: some segments of the financial market did not need to be supervised, e.g. investment banks, rating agencies and the aforementioned off-balance sheet bank transactions primarily in the USA, but also in the Old Continent.

The beginnings of the difficult macroeconomic situation in the United States date back to the 2001 recession, when - after the unsuccessful reduction of success - the central bank, which is also responsible for production and employment, was forced to apply a negative real interest rate. This decision did make the investment demand of companies more dynamic; however, it also caused an increase in the mortgage debt of households refinancing it. This situation greatly increased the competition between non-bank financial institutions in the subprime market, which granted high-risk mortgage loans (Sławiński, 2007). The awareness of this fact made these institutions sell loans in the secondary market and these liabilities were, in turn, bought by securitisation funds belonging to banks.

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It is important that the loans purchased could be exchanged for debt securities, which were then offered by these funds to institutional investors.

Trouble began when the interest rates increased, making the repayment of mortgage debt more difficult or sometimes even preventing it. Finally, the speculative bubble on the real property market burst and the real property prices went down quickly as the demand for new building investments was limited and the supply of houses increased. As (according to some estimates) over two-thirds of the increase in production and employment were connected with the real property market, the slump in this market gave rise to a strong tendency to recession in the years 2001-2007. At the same time, the growing part of liabilities in the subprime market became unpayable, which, in turn, caused a crisis of trust in financial products created on their basis. In general, this gave an impulse to a lack of liquidity in the interbank market, and therefore, also an increase in interest rates. At the same time, there are a decrease in stock prices and a weakening in the dollar.

In summary, it can be stated that excessive loosening of the monetary policy at the beginning of the new century induced an expansion of lending activity and the inflation increasing over time made Fed increase its interest rates, which, among other things, resulted in the speculative bubble bursting, that had been created earlier with the participation of the Fed itself. Next, a financial crisis breaks out and to stop it, the central bank begins to loosen the monetary policy in an abrupt way, which is enhanced by government support packages.

Another problem the American economy had had to deal with for a long period of time was the current account deficit, which can be regarded as almost a structural part of this economy. The growing current account deficit in the balance of payments was caused by the increasing deficit in the public sector and the regular decrease in the personal savings rate (also compared to national investments). It had to be covered from the inflow of foreign capital from the so-called surplus nations: Japan, China, Russia and Arab countries. The countries were quite willing to place their surplus in the USA in the form of portfolio investments (in government bonds) and bank deposits. The funds acquired from abroad increased the general liquidity: the activity of banks in the area of mortgage loans extended, which were subsequently liquidated by means of securitisation. Thus, it can be seen that despite decreasing national savings, the banking sector was doing very well not only due to the Fed's monetary expansion, but also due to global imbalance. Furthermore, some stabilisation of this arrangement did not encourage the public authorities to introduce the necessary cuts in expenses or the households to reconstruct their savings as it was easy to pay off loans.

All these phenomena were accelerated owing to the progressing liberalisation of capital flows; however, it diverged a little from the model assumptions. First of all, it was adopted that the advisability of the opening of capital markets on a global scale resulted from the legitimacy of material resources markets and goods market. As liberalisation and deregulation of product flow is beneficial for countries deciding to implement them, liberalisation and deregulation of capital flow must also turn out to be useful. Thus, the capital is treated as "goods" in this case, while the free trade theory constitutes the intellectual basis for it.

In accordance with the neoclassical trade theory, the free flow of goods on a global scale, which means portability of production factors embodied in products, relieves the effects of incomplete mobility of these goods in the international system. If the free trade condition is met, the specialisation is based on relatively abundant resources results in a tendency to level out relative prices of manufacturing factors and goods on a global scale (the Ohlin-Heckscher-Samuelson theorem). An increase in foreign demand for a product requiring considerable expenditure of the abundant factor increases both the demand for services of this factor, raising its domestic remuneration, i.e. the price. Therefore, the international exchange causes an increase in the prices of the abundant factor and a decrease in the prices of the rare factor, which is why the income of the owners of the abundant factor increases and the situation is the opposite for the rare factor.

The application of this reasoning to the contemporary globalisation of capital flow makes it possible to decide that the tendency to level out the relations between the prices on an international scale receives another stimulus from the free transfer of the capital from countries, where it is abundant to countries suffering from capital deficiency (and therefore, less developed). In the latter, the capital, as a specific production factor is characterised by a higher final productivity and, so, altogether the world allocates its resources in a more effective way and ensures the optimal risk distribution, which results in a more intense economic growth. A conviction arose that free financial flows should bring visible effects, especially for countries poor in capital and, therefore, affected by excessive fluctuation of the increase in gross national income and, as a result, consumption. This brings the following remarks:

Firstly, certain "technical" assumptions of the neoclassical approach should be regarded as anachronous in the light of the theoretical progress: homogeneity of the flowing capital (lack of distinction between the short-term and long-term capital), stability of this approach consisting in the analysis of the existing bilateral relations between countries, and, finally, the effectiveness of the markets and informational asymmetry (the latter is particularly criticised by Stiglitz).

Secondly, numerous economists raises doubts about financial globalisation as regards broadly understood effectiveness of capital allocation, especially beneficial distribution of risk and stabilisation (Greenwald & Stiglitz, 2006; Reisen & Soto, 2001). What is more, Lucas (1990) paid attention to the fact that capital flows mostly between highly developed countries and, later on, it turned out that against the neoclassical ideas - the capital is mostly transferred from less to more developed countries. In the years 1996-2006, the net outflow of capital from developing countries and countries during system transformation kept increasing, although the tendency was less visible in the latter. At the beginning of the new century, a group of countries with capital surplus was established, led by China. Paradoxically, as against the assumptions of the mainstream economy, the liberalisation of capital flow accelerated and caused the acquisition of funds to cover the deficit in the balance of payments easier, which was actually a huge step towards the economic breakdown.

Under conditions of erroneous deregulation and progressing liberalisation with the simultaneous lack of supervision and control, the so-called *financialisation* of the economy occurred - especially the American economy, which is to be understood as the strengthening of the role of the financial motivation, entities and financial markets both domestically and internationally. An increase in the share of the financial sector in the GDP occurred and at the same time, the financial market became autonomous towards the real zone by enhancing the risk level by financial engineering. The basis of its development was the assumption concerning the growing trend of variables, such as indices, asset valuation, GDP and, in this way, also the demand and constant inflow of money, which altogether accelerated the speculative turnover.

2. Neoliberalism in the theoretical dimension

The neoliberal doctrine, encompassing specific ideas and notions about the economy, could become the original cause of the crisis only because of the fact that it was developed by tools of neoclassical economy, which has been criticised for years (it is worth remembering that also other, newer directions are included in the mainstream, such as behavioural economics, new institutional economics, experimental economics, etc. which not evoke sharp criticism). In general, the following main areas of criticism can be identified (Wojtyna, 2008: 12-13).

The first one stresses the weaknesses of economics as an instrument of scientific recognition, claiming that it is a "false" science preventing better understanding of economic society. As positive economics, it fails in the role of a tool, which explains facts and tendencies, which have already occurred, but also as a tool predicting upcoming events, especially the ones, which are important regionally or globally. Also, neoclassical economics viewed from the normative angle is assessed negatively. In this case, its excessive concentration on the problems of goods and money, and there is too little interest in the redistribution of wealth or ecology or the morality of people involved in the economic system.

Another area of criticism concerns the inadequacy of research methods: neoclassical economics (which continues to be called mainstream economics with the reservations submitted) is too theoretical and becomes similar to intellectual games, which do not lead to solving practical problems. Disputes revolve around the question whether economics should draw from methods typical of humanities or of natural sciences based on the application of mathematics. The superiority of the latter would consist in, among other things, at least limiting the role of ideologies and political views of researchers who construct economic models.

The third area encompasses critical remarks addressed to the scope of research conducted within neoclassical economics: its opponents stress the lack of knowledge about social economic mechanisms among its opponents (e.g. they think it is unacceptable to treat individual and group/social rationality as one). Another weakness of mainstream research is its excessive interest in horizontal informational and regulatory connections at the expense of vertical connections, which causes the research to shed little light on the role of a modern state in the economy under competitive pressure from its international environment. And all this is based on the dubious assumption about the homeostatic striving of the economy for general equilibrium, which, in turn, encouraged Solow to define the neoclassical world as a triad of "greed-rationality-balance".

It will not be a mistake to state that actually all of the areas of criticism, which have been discussed here are brought in the discussion between economists in connection with the role of science in the context of crisis. However, its intensity seems to be greater than usual. Although the authorities taking part in the discussion (such as Krugman, Stiglitz, Cochrane, Colander) express different opinions about the immediate causes of the breakdown and ways of repair, they all believe that economic sciences in their orthodox form are facing an unprecedented challenge now. It is not attempted to present reservations concerning mainstream economics; however, they can be summarised briefly (Colander, Goldberg, Haas et al., 2009; Hardt, 2010).

Firstly, *it is observed that economists attempt to build a universal theory which is at the same time stunning as far as its scientific elegance is concerned*. The success of economy in the role of a so-called "hard" social science has made its proponents treat the mainstream research as a model, in which instruments and results are to be distributed in areas, which used to be outside the scope of economy, such as law, sociology or political sciences. This process consisting in taking over research areas of other social sciences, was dubbed "economic imperialism" in a somewhat mischievous way. A search on the source causes of this status quo should focus on the internal consolidation of mainstream research around the Post Walrasian theory of general equilibrium and the strength of this consolidation is illustrated by an attempt to devise microbases for macroeconomic theories: neoclassical stability of preferences, full rationality of individuals and market equilibrium.

Secondly, *weak relations with reality or even a lack of reality of numerous assumptions lying at the base of neoclassical models.* It is commonly assumed that markets operate simply because some conditions for their operation are met, but, generally, nobody is interested *how* they operate, and, first of all how they *evolve*. The central question concerns the prices and technology in the function of the allocation mechanism of rare resources in the economy. Little attention is devoted to the state, and even if attention is paid to the state, it happens so only with the assumption of its autonomous position towards other entities, while a company has a "black box" status reached by resources, which are then transformed and launched as products. Nothing is known, on the other hand, about the complicated process of organisation and decision-making within a corporation. An individual entity capable of determining constant preferences, striving to maximise the usefulness and competing for rare resources is the great master of all these market events. Little wonder that it takes fully rational decisions since it has got easy access to free information in a transparent and perfect market. Furthermore, there is no uncertainty here, since the entity does not enter into complex interactions with other entities - the social environment is disregarded in the model. At the same time, this is a sign of cognitive reductionism: all concepts referring to the macrozone are reduced to the knowledge about the microzone (e.g. large groups of consumers behave like an individual entity).

To fully present the lack of realism in the neoclassical economics, it is worth recalling its contemporary vision of capital flow in the global economy. Leaving aside the issues already mentioned above, the competitive fight of individual countries for the nomadic capital in the open market by means of macroeconomic modernisation is in the form of reducing interest rates, reducing budget deficits or administrative costs. Mainstream researchers do not notice the fact that the contemporary capital market is highly imperfect due to the activity of national states within integration groups with a considerable degree of institutionalisation, within which rules of fight and cooperation apply differently from neoclassical ones. The majority of them are a common achievement of previously negotiating members of such a group.

An overview of opinions also shows a negative approach to the criticism of non-realistic assumptions lying at the base of neoclassical models. Hardt (2010, pp. 12-15) refers to the known Friedman theorem that the lack of realism in the assumptions concerning a given theory should not be a matter of concern for the theory itself, and, next, he supports this thesis using Solow's opinion: the complexity of reality necessitates the construction of simplified models. Compiling both of these positions, Hardt develops his own thought, which, however, takes a winding path, namely, that there does not exist an objective and aggregate measure accounting for the strength of the theory of economics. In consequence, the selection of defined assumptions of a model should be the researcher's pragmatic work, depending, for example, on the degree of precision, which they want to achieve for the explanation of a given fragment of reality. Hence, the conclusion about illegitimate comparison and evaluation of various economic models arises. However, one gets the impression that Hardt's digressions of being so general as they are a bit removed from the basic criticism of neoclassical economics, leaving out, among other things, the issues of cognitive reductionism and the lack of interaction between agents, which are of fundamental importance for macroeconomics. In other words, the aforementioned author does not define the borderlines, which should not be crossed while designing simplifying assumptions in models.

Thirdly, *criticism towards excessive use of mathematical tools appears in the literature in connection with mainstream researchers striving for formal elegance of models, which can also be called an excess of ambition compared to the contents of research.* The aforementioned criticism takes two forms: sharp and mild. In the first case, critics talk about confusion between "mathematical beauty" and the objective truth. It is not surprising, if one analyses Lawson's statement (2009, p. 765), who perceives the economy as a naturally closed set consisting of isolated elements, which prevents deductive, mathematical modelling. However, this observation is true only as regards certain group of models connected with Arrow-Debreu general equilibrium theory. It was based on twelve simplifying assumptions, among which the most important are those concerning the static and stationary character of the economy (a set of elements that are constant in time). However, if one considers other models, for example, the ones created within the framework of the game theory, they do not require such rigorous assumptions. This is just a step away from the mild form of criticism, in the light of which neoclassical researcher should strive for extending the mathematical tool so that it is possible to model various imperfections of markets and complex interactions of their agents. Such a procedure might make the mainstream economics closer to the trend of beneficial symbiosis of the technique with the contents of the research.

3. Towards a new paradigm

Hardt's conclusion about the impossibility of comparing and evaluating various economic models quoted above seems to confirm the lack of objective determinants of progress in economics. However, the case is not hopeless, the opinion that the following criteria determine the maturity of a theory predominates in the literature:

a) explaining social and economic phenomena in a way, which is convincing for the majority of researchers;
b) formulating possibly accurate forecasts;
c) creating theoretical bases for effective economic policy. If economics is to meet, in particular, the last criterion, it should undoubtedly be based on empirical research and progressing theory that requires also perfecting empirical research.

The increasing willingness among economists in recent years to face these criteria results in increased diversity and pluralism of tasks. These two notions are not identical as the pluralism of the theory concerns the judgemental evaluation of the situation in the area of theoretical diversity (Mäki, 1997, p. 39). In short, pluralism exists if there exists a positive evaluation of theoretical diversity, which enriches the cognitive possibilities of economics. However, a situation in which, despite the diversity of the theory, the pluralism is limited, as the conviction about the harmfulness of the diversification of studies predominates among numerous researchers - this was the case in the 1970s, when the opinion of intellectual perfection of the general equilibrium theory became consolidated.

In the course of time, it became clear that it was not possible to continue a theory, which disregards constitutive features of the contemporary economy. Uncertainty, expensive information, imperfect markets, renewable imbalance, arriving wave on innovation, etc. Therefore, at the beginning of the 1990s, a significant increase in both diversity and pluralism in the theory of economy was observed. Mainstream research became divided into numerous approaches (e.g., the game theory or the chaos and complexity theory), however, assumptions referring to the limited rationality and to institutions regulating the behaviour of individual entities appeared in the new models, apart from unshakeable neoclassical assumptions. Particular attention was paid to the relations between economy and psychology, which made it possible to create behavioural economy (Bruni & Sugden, 2007).

In general, it is a symbiotic relationship between economy and psychology, which makes it possible to analyse market phenomena in a situation, in which the behaviour of entities in the market arise under the influence of some limitations or complications. In other words, this relationship increases the interpretative ability of economics, thanks to the assimilation of more realistic psychological attitudes. At present, behavioural economics is considered to be a fully fledged field of research, not only because it has undermined the neoclassical conviction about standard (rational) behaviour, but also due to the fact that formalised models have been developed, which are capable of accounting for non-standard behaviour and their importance for market operation. The future of this economics is seen among unified behavioural sciences including, apart from economics, anthropology, biology, psychology, sociology, political science and the general theory of evolution should be perceived as their centre of gravity.

Just like any other field of research, also behavioural economics has its strengths and weaknesses. The first of these, undoubtedly, include a broad use of results of experimental research, in the light of which, a new variable, ignored in the standard economic model, is important for explaining a fragment of reality (however, all experimental variables can be defined under actual economic conditions). In other words, the strength of behavioural economics lies in its contribution to the increase in the realism of economic models, and, in this way, also its application value. The lack of a general theory creating a common framework for individual fields of studies constitutes its weakness, which makes it more difficult to move towards a new paradigm.

Contemporary economy is also characterised by relationships with sociology; however, in this case, we deal only with the imperialism of economic science, i.e. their entering areas of research, which used to be explored only by sociologists. The extension of the scope of analyses means the appearance of an economic theory of marriage and reproductiveness, as well as a theory of social capital, segregation and discrimination, social networks and collective actions (Becker, 1990). However, undertaking social dilemmas is not accompanied by a search for a new method, as a traditional economic approach to all human behaviour occurring under conditions of rare resources and competitive objectives. This approach is based on three neoclassical pillars: fully rational, maximising human behaviour, stability of preferences and market equilibrium (economic sociology applying its own tools to interpret social relations, which are a constitutive market element, is a separate case not covered by this analysis).

New institutional economics deserves our attention among various research approaches, as it focuses on the role of institutions in the reduction of transactional costs and uncertainty in economic processes (Furubotn & Richter, 2000). This approach has its roots in neoclassical economics; however, it is characterised by an assumption concerning limited rationality of market entities, which is the decisive factor in the possibility of transactions costs amounting to zero. Factors limiting human rationality and are, at the same time, a source of transactional costs are imminent in the market mechanism: incomplete knowledge, informational asymmetry and uncertainty characterising the behaviour of other market participants. Representatives of new institutional economics think that institutions (the frames) and organisations (the forms) of collective operation should be analysed as recognition of certain regularities can probably weaken (but not eliminate) the aforementioned factors.

Undoubtedly, new institutional economics undertakes the difficult task of answering current questions, which were ignored by neoclassical (orthodox) economics, leading to greater realism of economic research. The basic question concerns the actual mechanism of making decisions by people and explaining how individual decisions are transformed into the behaviour of markets and societies. Contemporary institutional economics creates a description of collective action of human entities, coordinated by institutional rules of the game and observed from the perspective of a company, state or a group of interests. However, from the point of view of research methodology, institutional economics is disappointing as it has not created a new analytical tool, which would be different from the orthodox one. Using tools of neoclassical economics and its deductive discipline, new institutionalism attempts to account for the operation and evolution of institutions in order to extend the scope of microeconomics and to increase its predictive power.

Conclusions

A comparative analysis of approaches to relations between the theory of economy and the economic development has shown the superiority of the historical approach, according to which causes of the contemporary crisis are much deeper than technical ones. Neoliberal ideology and the mainstream economics connected with it lie at the base of the crisis as they provided fuel for erroneous institutional policy initiating secondary causes of global breakdown, such as underdevelopment of global institutions and liberalisation of capital flow. Furthermore, the analysis of structure of dependency between these causes has proved that no crisis event was an accident, but a well thought-out effect of mutual, and sometimes cumulative, interactions between the aforementioned causes (the American economy, in which interaction between erroneous deregulation, quantitative loosening of monetary policy and global imbalance occurred, can be an example here).

The criticism of mainstream economics presented in the literature (for a long time) supported by the dishonourable role of this economics in the development and explosion of the crisis could signal the twilight of the traditional paradigm and the birth of a new one. This conclusion is partially right as despite the growing diversification and pluralism of research, it is easier to obtain a positive assessment of new ideas and research areas than a new methodology. Actually, apart from behavioural economics, none of the remaining innovative trends have not contributed in a significant way to the development of a new paradigm. Therefore, the situation of economics seems complex, increasing realism of the developed models will be certainly accompanied by a long-lasting process of modernisation of research methodology, which makes it possible to look into the future with moderate optimism, especially as regards the application value of economic theories.

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