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New pragmatism by G.W. Kolodko: an alternative of or a supplement to pure economic theory?

Scientific and technological progress has radically changed and continues changing the life of human community. Some thirty-forty years ago people could not even imagine how their life would be modified as a result of digital revolution, explosive development of information and communication technologies. Mesmerizing prospects have opened due to accelerating penetration of mankind into the secrets of microbiological and cognitive processes, of the laws of matter at the nanoscale. Because of permanent progress in basic and applied research people are getting at their disposal more and more perfect technologies, which provide them with possibilities to meet their material and spiritual needs on an increasing scale.

But it is also well known that growing intellectual might does not save the mankind from new challenges – both from the surrounding material world, and its own organization as a society. Perhaps, in the most general way these challenges can be seen as a manifestation of a single big problem – non-identity of growth (in the sense of permanent, though uneven, increase of material and spiritual goods, knowledge and technologies at the disposal of mankind) and development pro-

cesses. It is obvious that this fundamental problem, as well as its derivatives, has a special economic dimension.

In the sphere of mutual relations between man and nature the conflict between growth and development manifests itself in a sustained escalation of the problem of environmental degradation resulting from human productive activity. It is known that efforts to intensify productive activity have had a mixed impact on the dynamics of human well-being. Immediate result consists in the growing quantity of goods, which meet the demands of the members of the society, and this very effect stimulates people to scale up production. The growth of the human population acts in the same direction. The deterioration of the environment is a more remote and gradually accumulating effect of expanding exploitation of natural resources, which negatively influences people's welfare.

Growth vs development problem has numerous manifestations within the society itself. Social – including economic – institutes do not ensure that cultural values of different groups of people are fully taken into account in the process of their interaction. This side of the case deserves special attention in the period of globalization. In more general terms we can talk

about constant failures in the process of harmonization of interests, belonging to different interacting actors – both individuals and their groups. The end result of the imperfection of institutes are conflicts – sometimes quite acute, and unfavorable development of socio-economic processes. As an example of such phenomena of concern we can refer to deep differentiation of incomes among separate people, regions, countries and their radically different opportunities of access to the achievement of modern civilization.

Numerous problems arise as a result of imperfect organization of economic life in modern society – both on a national and global level. The functioning of market economy, which has become a universal form of economic order, is accompanied by deep crises. It is indicative that the main source of global perturbations is localized now rather in the financial than real sector of the economy.

The problem is further aggravated by the existence of a complicated system of feedback between different challenges facing the mankind. The tension growing along the line of man – nature is projected on the system of social institutions; the latter has a strong impact on the character of human productive activity and, therefore, on his mutual relations with nature.

How to unravel this extremely complex tangle of problems? Can modern economic science be useful in this? – here are question, which attract more and more attention of social scientists and politicians.

The heterodox answer

Historically economic science embraces a wide range of disciplines both of basic and applied character. From this point of view, it does not differ much from natural sciences.

General economic theory (economics) is represented by two sciences – micro- and macroeconomics. Despite the differ-

ent currents within these disciplines their very existence testifies to the fact that economic relations have by no means a casual character. The main task of micro- and macroeconomics is the same as the task of any other theory – to build the “intellectual layout” of the studied object. This model, reflecting main interconnections between different elements of economic system, is designed to reveal the features of its functioning and evolution under the influence of internal and external impulses.

Along with micro- and macroeconomics there exists another type of theoretical disciplines. Their function is to develop tools, which help those who study specific economic processes to collect and process data. Economic statistics and econometrics are precisely these disciplines.

In turn, applied economic research is designed to reveal and estimate processes, which occur in specific economic systems – global and national economies, regions, branches etc. On the one hand, applied research is based on conclusions of economic theory (in this sense the latter is its methodological foundation) and take advantage of research tools developed by theoreticians, but, on the other hand, it allows to confirm or to reject general conclusions of economic theory.

An opinion that economic science organized in such a manner does not allow to formulate clear answers to challenges faced by humanity in its economic activity has become quite widespread nowadays. Obvious failures in forecasting important economic events, on the one hand, and multiple cases of inefficiency of practical recommendations made on its behalf, on the other hand, are considered as the most convincing evidences of the crisis of modern economic science. The most vivid example of the first kind is the huge world financial and economic crisis of 2007-2009, which, ironically, erupted

soon after mainstream economists became confident that they had resolved the problem of depression prevention (Lucas, 2003). The examples of the second kind are numerous. I will limit myself to mentioning now generally accepted inefficiency of measures, known under the name of Washington consensus, which were heavily imposed on post-socialist countries.

Such failures of modern economic science can be considered as obvious examples of its crisis. However, the task of researchers is not to state the existing problems. The next, more difficult step is to reveal the nature of the crisis, its deep foundations. G.W. Kolodko's concept of new pragmatism is an example of the so-called heterodox approach in economic science, whose methodological foundations are analyzed in this section.

The representatives of this approach are questioning the validity of the attempt to construct economic theory in the image and likeness of natural sciences, i.e. basing on a set of axioms and logical inferences and with wide application of mathematical technique (Pigou, 1932). Consequently, an obvious simplicity of hypotheses (axioms) referring to specific features of human behavior, on which economics is based, becomes an object of criticism. Among them are the theoretical constructs used by modern economic theory to characterize both individual behavior, and social goal-setting.

Attention is attracted to the fact that agents with consciousness and their own interests act in society and their ideas about reality can directly influence it. One of the consequences of such a state of affairs is a fluidity of economic environment, which leads to the rapid obsolescence of any models that claim completeness. At last, the fallacy of ignoring non-economic factors of economic development is emphasized, especially of cultural and political character.

Back in 1998 V. Polterovich (1998) came to conclusion that the crisis of economic science is linked to impracticability of the task to transform it in a *precise science* such as theoretical mechanics or chemistry. The position of G.W. Kolodko is quite close to this point of view: he argues that in the system of sciences economic theory occupies the place between hard precise mathematics and soft abstract philosophy.

The rejection of exclusive reliance on logical structures and the intention to bring economic science closer to solving practical problems led to the spread of the point of view, according to which this science should absorb results of different spheres of knowledge, i.e. to have multidisciplinary and heterogeneous character. Prof. V. Polterovich brings this thesis to its logical conclusion, advocating for the replacement of economic theory by *general social analysis*. His idea is that ... *all attempts to determine the area of economic phenomena proper lead to the insolvability of the main economic problems* (Polterovich, 2013, p. 181). The functioning and development of social institutes as a whole should become the subject of general social analysis. Studies, which are carried out within general social analysis, should be supported by a single database and their common analytical apparatus should consist of statistical processing of data (econometrics) and game theory, the latter being treated as an abstract discipline explaining the formation of norms of behavior (Polterovich, 2013, p.184). The author himself emphasizes an eclectic character of this construct: *Modern institutional analysis with its methodological eclecticism could become a convenient platform for synthesis* (Polterovich, 2013, p. 185).

The concept of new pragmatism by G.W. Kolodko is also based on the fact that economic theory should be primarily focused on the achievement of prac-

tical goals and rely on multidisciplinary approach. Special role is attributed to the area of human values. From this angle of view the task of economic theory consists not only in description of economic reality and establishment of cause – and – effect relationships between observed economic phenomena and processes (descriptive function), but also in making value judgments (normative function) and on their basis – formulating recommendations aimed at solving the problems facing the society.

Through these methodological principles G.W. Kolodko develops *the coincidence theory of development*. Its essence lies in the fact that any economic situation is always characterized by a unique combination of properties. Any of these properties can appear in other conditions as well, but their consequences will not be the same because of the different context. According to the author of this conception, the uniqueness of each situation requires the rejection of dogmatism and associated desire to construct a universal theory of development. Similarly, the researcher should be ready to apply those analytical tools, which best fit the nature of the studied object and pay no attention to the question, which school of economic thought developed the respective tool. And last, G.W. Kolodko attaches special importance to the application of comparative methods of economic analysis.

The crisis of economic theory: an orthodox view

Strictly speaking, unorthodox (heterodox) attitude to economic theory logically leads to the complete abandonment of it. The study of behavior of a specific object in specific circumstances is substituted for generalized description of behavior of a certain class of objects. With this approach, the theory cannot but break up into countless special cases (case studies) relating to different areas of society and

studied with the use of diverse research tools. Economic theory as a two-stage design consisting of general theory and its applications (or, in other words, basic and applied sciences) goes into oblivion; in its place comes science, devoid of fundamental components. It should be mentioned also that a drastic increase of costs related to the necessity to allocate human and material resources to research from scratch countless specific problems facing the society would be one of the results of the transition to such a science.

The above-presented vision of difference between social sciences as a whole (and economic science in particular), on the one hand, and natural sciences, on the other, also cannot be accepted by the representatives of traditional economic science.

It is by no means possible to neglect the fact that the main specific feature of society as an object of study consists in that human beings, interacting within it, are conscious and guided by interests in their actions. Social, including economic, institutes are the product of their activity. But the conclusion that we cannot assume the existence in economic system of consistent patterns amenable to scientific generalization is not convincing.

The complexity of modern economic system riddled with countless interdependences between economic agents, which act separately from each other, is well known. The more important is the fact that market economy, despite this feature, does not disintegrate, but rather demonstrates the ability to ensure more or less orderly development. This in itself gives a good reason for the assumption of the presence of objectively acting forces that guide the energy of autonomous economic agents. One can assume that the existence of regularities in economic sphere is related to the fact that different people have homogeneous aspirations

implementation of which is faced with similar restrictions. Whatever it might be, general economic theory has at least a four-hundred-year history in the course of which numerous researchers managed to get a lot of useful and confirmed by practice information about how the market economy works.

The above thesis, according to which a separate economic theory has no right to exist because economic decisions by nature should take into account value and, in many cases, political aspects, also is not convincing. There is no doubt that society is a complex object with political, economic and cultural dimensions. But the subject of pure economic theory is rather the society as a whole viewed from economic perspective than a separate sphere of society.

However, if economic theory deals with the society as a whole, but from a special angle of view, then it cannot be abstracted from the phenomena, which constitute main object of research of other disciplines. It should include them either axiomatically or even to make investigation of some of them its immediate task. Hypotheses relating to human preferences corresponding to A. Smith's concept of *economic man* constitute an example of axiomatic introduction of certain values in economic analysis. Later we will dwell upon the problem of social choice that relates directly to the study of political mechanisms and at the same time is extremely important for economic theory. But here we will note that in this case the subject of economic theory and political science in fact coincides.

Orthodox vision that economic theory is a methodological base for specific research can, certainly, be used – and sometimes is used in a direct or indirect form – to neglect its crisis. After all the challenges the mankind faces can be related

rather to deficiencies in applied studies than in basic research. But, according to my mind, the analysis of the current state of economic theory makes us conclude that its crisis is obvious.

Heterogeneous character of modern economic science is itself a very important evidence of this crisis. The thing is that along with mainstream economics and its sections – spatial economics, industrial economics, labor economics, international economics, informational economics – within modern economic theory there have formed a number of currents, which treat differently basic problems and practice different methodological principles. Among them: new institutional economics, development economics, evolutionary economics, ecological economics, physical economics. There is no doubt, the fact that economic theory goes far beyond its mainstream is itself a consequence of inability of the latter to suggest approaches to solving many of the questions posed by life. But whatever the reasons are, the result consists in disintegration of a single economic theory into many “pieces” badly connected with each other.

The very fact of the split of economic theory into two sciences – micro- and macroeconomics – needs interpretation. It can appear that they have just divided between themselves the field of economic research – microeconomics deals with relations of separate economic agents whereas macroeconomics – with the functioning of the economy as a whole. If the problem were in a different perspective of the study, then we would have to consider micro- and macroeconomics – as it is usually done – as two sections of a single economic theory. But it is crucial that micro- and macro- in their classical form have different methodological foundations and should, therefore, be treated as two different sciences (Arrow, 1967; Katzner, 2006; Samuelson, 1980).

Microeconomic theory excludes the possibility of interpersonal comparisons of utilities, and therefore treats as senseless the summation of individual incomes in order to characterize the welfare of a group. At the same time according to macroeconomics the gross domestic product (income) is a key indicator of economic development of a country. Such a macroeconomic indicator as the price index is also senseless from microeconomics point of view because it cannot be unambiguously defined: its value depends on the structure of production taken as a base. Similarly, from the microeconomics point of view there are no grounds for introduction in the analysis of a production function of the economy as a whole that would summarize all production functions characterizing technically efficient technologies in specific areas of production. However, it is this aggregated production function that underlies modern theories of economic growth.

The first and the most important peculiarity of classical macroeconomic theory is that it reduces the complex *vector reality* to a simple *scalar representation*. In recent decades a lot of work has been done to set up the microeconomic basis for macroeconomic science (Romer, 2001). It seems, however, that until economic growth remains one of its most important themes methodological incompatibility of these two economic theories is inevitable. In case the subject matter of economic growth of one single aggregated indicator is replaced by the problems of economic development based on a vector perception of economic progress, the advantage of classical macroeconomics consisting in its adaptability to practical application will disappear.

The second peculiarity of classical macroeconomic theory consists in that it includes elements from both *pure* and *realistic* science. In fact, up to a certain moment *scalar macroeconomics* is built on

an axiomatic basis and logical deduction and in this sense meets the requirements of any general theory. However, macroeconomic models developed according to these rules cannot be directly applied in practice without additional assumptions. In some cases, these assumptions relate to the response of economic agents to change in some parameters of the system (i.e. sensibility of the volume of investments to changes in interest rate), in other cases – to the peculiarities of the agents' expectations with regard to future developments. Respective hypotheses are usually formulated on the basis of the analysis of statistical data and that is why econometric research has become an integral part of modern macroeconomics. But the problem is that quite often in different time periods econometric analysis of the same relationships gives different results. To my understanding, this may be related to the fact that social sphere includes a *zone of uncertainty*, which existence is rooted in the peculiarity already mentioned – people adopting themselves to environment change it (Galbraith, 2014).

Whatever it might be, macroeconomics has occupied intermediate place between realistic and pure sciences. So, in this respect two economic theories – micro- and macroeconomics – have also turned out to be different.

Complex problems of conceptual type, which have appeared in the course of a thorough analysis of the process of decision-making by collective economic agents, are another manifestation of the crisis of economic theory that is also relevant to the subject matter of micro- and macroeconomics. For quite a long time economists believed that social choice does not differ much from individual choice, because, as it seemed, in both cases the task is to maximize utility function of the agent in conditions of resource constraints faced by him. But, K. Arrow

demonstrated in a well-known *possibility theorem* that there was no rule of social choice, except that based on a decision by a dictator, which could provide for the transition from individual preferences of the group members to the preferences of the group as a whole. Thus it became clear that a group cannot be regarded as an agent with its own set of (group) preferences.

This conclusion made uncertain the very notion of socio-economic progress and at the same time deprived of the contents some notions, which accompany it, such as collective (group) interest and social priorities (Nekipelov, 2006). It is not difficult to imagine how unfavorable the consequences of such a development of events are for the formation of the so-called scientifically-based reaction by the society to challenges facing it.

Understanding the incorrectness of the solution of the problem of social choice, which (solution) seemed obvious for a long time, delivered a powerful blow upon microeconomic theory as well. The blow fell on such a fundamental microeconomic concept as the theory of consumer demand (Nekipelov, 2006). As is well known, the function of consumer demand is deduced on the basis of a model of consumer choice, within which an individual with a system of preferences meeting axiomatically specified properties is an agent that takes decisions. In fact, as is also known, such decisions are taken not only by individuals, but by specific human groups – households. If this collective economic agent does not possess its own system of preferences then the question of the origin of its demand function hangs in the air and, consequently, the concept of equilibrium on commodity markets, built with such elegance, collapses.

The situation is further aggravated by the fact that the problems of microeconomic theory, which fits to the most ex-

tent the notion of *pure economic science*, are by no means limited by difficulties with the deduction of a household demand function of. V. Polterovich attracts attention to the Sonnenschein – Mantel – Debreu; from which it follows, according to his theorem, that the model of general equilibrium can say, without special additional conditions, nearly nothing about real world (Polterovich, 2013).

But, to my understanding, the most serious manifestation of the crisis of microeconomic theory consists in that it pays attention exclusively to the institutions of modern economic system completely ignoring the mechanisms of their formation and development. *Non-historical* character makes economic theory in its current form practically inapplicable to the analysis of institutionally different systems. But what is even more important it precludes the perception of the market economy itself as a developing system. Should we be surprised then that there are experts who are sure that theoretical ideas are doomed to lag behind the rapidly developing economic institutions?

Serious problems of methodological character arise because of the concentration of microeconomics exclusively on the analysis of functional dependences and a related opinion that economic theory is just a descriptive science. It turns out that this approach inevitably leads a researcher into *vicious circles* of tautological reasonings when he has to explain some unknown phenomena with the use of other unknown phenomena. In fact, the presentation of microeconomic theory usually begins with the investigation of the model of consumer choice. As is well known he aim of the latter is to formulate an answer to the following question: what is the composition of the commodity bundle, which ensures – individual preferences, market prices of goods and nominal income of the consumer being given – the maximization of his welfare?

But the fact is completely ignored that the nature of prices and money income are not yet known. The same story is repeated with the theory of the firm. The task is to determine the scale of output, which maximizes economic profit. Here again, being within the paradigm of modern microeconomics, we have to define costs using previously unexplained prices and, thus, fall into an obvious tautology. The notion of opportunity costs of the use of capital, which is important for solution of the problem, in fact introduces in the analysis in a *smuggling manner* the notion of interest rate, which has never been mentioned before.

Possible approach to the formation of a new paradigm

The crisis of economic theory is more a manifestation of its development than a decline. Any science is to give a holistic, internally non-contradictory presentation of its subject matter. From time to time due to research carried out permanently by numerous scientists such a state of affairs can be achieved. The research does not stop then. Up to a certain moment it is underway within the new paradigm, enriching and consolidating it. But sooner or later scientists come across such features of the object, which they cannot explain, staying within the framework of existing scientific ideas. New facts require explanations (sometimes – actions) and researchers have nothing to do but to propose some, which often go beyond the existing outlook. As a result, the scientific pattern becomes *motely*, heterogeneous and loses integrity. The further this process goes, the more urgent the task of updating the paradigm becomes, i.e. the task of restoring integrity of the theory taking into account the new set of factors. At the same time former scientific knowledge is not dismissed; it should rather be included in a new set of scientific ideas in the *processed form*.

In order this conclusion not to be unfounded I venture to propose a number of considerations with regard to a possible approach meant to contribute to overcoming the crisis experienced by modern economy theory.

Systemic vision of the economic system presupposes the necessity to introduce an order in its already known structural elements, to detect their interconnections and subordination to each other. Because of the complexity of the object this task can be solved only on the basis of the abstraction method, the movement of thought from simple to complex. In other words, it would be totally unrealistic to set the task of immediately embracing the whole object with its diverse structural elements and interdependences.

A perspective to build economic theory on the basis of deduction method starting from an extremely simplified model and certain initial hypotheses (axioms) seems very attractive. Theoretically such a theory would reflect both functional relationships manifested on the surface and logical subordination of the structural elements of the economic system. At the same time an opportunity to better understand the logical history of the economic system formation and possible directions of its further development would open up.

With this approach the issue of the starting point of research becomes important. The author made an attempt (Nekipelov, 2006, 2017) to use for these purposes the simplest model describing an isolated individual who has to take a decision with regard to production and leisure. In economic science this model has a long history and its own name – Crusoe model. It is often used for the analysis of certain problems in the most abstract manner. But I am not aware of cases when a detailed investigation of this model is re-

garded as the first step in the construction of a coherent economic theory.

Going, on this stage of analysis, beyond the exchange economy model allows us to take a look on the interaction of costs and utility in an economic context free of money forms. On this basis it becomes possible to identify forces, which push individual producers to establishment of exchange relations with each other and to development of the social division of labor. Huge transaction costs associated with in kind exchange provide a foundation for the explanation of the emergence of the institute of money, which serves as a means of their radical reduction. And only then the transition to the model of simple commodity exchange, which was regarded by K. Marx as the starting point of analysis, is made.

Investigation of money functions and microeconomic peculiarities of the model of simple commodity exchange makes it possible to introduce in analysis the most important notions of the market economy – money costs, price, income, interest rate, natural rent – and to determine the functions of demand for consumer goods and production resources, the supply function of an individual producer, the conditions for general and partial equilibrium.

Within this approach the emergence of such an institute as the firm becomes a logical result of the fact that on a certain technological stage significant increase in economic efficiency becomes possible only on the basis of large production systems, which involve the use of joint work of many individuals. The formation of an *aggregate worker* within the firm is realized by means of turning the workforce into commodity and emergence of the institute of hired labor. Involvement in economic turnover of the last factor of production – the workforce – means that the market economy becomes universal whereas the system of simple commodity

exchange is transformed into the market capitalist economy.

Consistent application of this approach allows you to create, in the long run, a coherent vision relating to the emergence and functioning of basic elements of the modern economic system. Besides, it becomes clear that the market itself is an instrument of social choice. The choice that is based not on the presence of the system of preferences in society, but on the coordination of the interests of all actors operating within the economic system organized in an appropriate manner (Arrow, 1963). Harmonization of interests within the market economy finds its manifestation in the achievement of general equilibrium. As is well known this state is Pareto-efficient: it is not possible to move from it to another state without deteriorating the welfare of at least a single member of the society.

Thus, under this approach the idea that a group is able to range independently different “states of the world” and on this basis to make the optimal choice is replaced by the view that the latter is just a result of the intersection of individual interests. It is important that the reconciliation of individual interests can take place only within a certain institutional environment. In the market economy such an environment is created by the recognition by the members of the society of private property rights and of their obligation to respect the concluded contracts.

From a logical point of view, we have here a very interesting situation. It turns out that the model of interest coordination is based, essentially, on tautology: the members of the group in order to have a possibility to reconcile their individual interests should in advance agree upon how they are going to make this coordination. It is natural, then, that the very point of optimal social choice should not be unique: the result can be different under

different algorithms of decision-making, that is in different social environment.

It would seem that all this is enough to embarrass the advocates of such an interpretation of the problem of social choice. But it turns out, that tautological character of the logical construct can be not only its disadvantage, but a merit as well. From a practical point of view, this assertion is supported by the fact that the establishment of any formal organization begins with the approval of its charter, which determines the way joint decisions are to be taken. From a theoretical point of view the following is important. The ambiguity of the point of coordination of individual interests makes it possible to logically explain the reasons for which corrections to the rules of joint decision-making are often introduced by the members of groups. Fragility of elements, on which the concept of coordination of interests is based, can be treated as a manifestation of that very “zone of uncertainty” in economic theory, which was analyzed above with reference to classical macroeconomics. At the same time this fragility makes it possible to better understand the causes underlying both emergence and disintegration of different groups.

It is important to keep in mind that the market is able to discover and coordinate only part of human preferences, that is those preferences, which are characteristic to the famous *economic man* of A. Smith. But the *social DNA* of a man does not terminate where the sphere of interests of economic man ends. The system of preferences of any man includes his attitude to many characteristics of the state of the world that are not related to his own welfare treated in a narrow sense of the word. To this or that degree each of us is interested in welfare of other people, in the harmony of social relations, in the state of natural environment. The fact that the market *does not see* this part of

individual interests means only one thing: the mechanism of market coordination of interests should be supplemented by other instruments.

The very existence of individual preferences, which cannot be discovered by the market, means that the coordinated view of the citizens of any country of the social optimum will not coincide generally with the market optimum, the scale of discrepancy being a function of the role of value, non-market components in the systems of preferences of the members of the society. Anyway, this discrepancy is *closed* by the activity of the state (after all it is nowhere reduced to the protection of property rights and the enforcement of contracts) and numerous civil society institutions. That is why it is not correct to treat measures of economic policy aimed at the correction of the functioning of the market mechanism as the interference of the state in (objective) market processes because of political (*that is* subjective) considerations (Arrow, 1963).

The outlined approach to the definition of social optimum makes it possible to treat in a different manner the functioning and development of the economy as a whole. It is not about giving up the use of aggregated monetary values within the pure economic science – aggregate supply, demand, income. It is about something else: all these notions should not be viewed in isolation from the underlying vectors of produced and consumed goods, of incomes, which all together determine the structure of the economy both in statics and dynamics. In other words, it seems that within the pure economic science (and only within it!) the scalar macroeconomics should be replaced by the vector macroeconomics, which has the task to *show the anatomy of financial flows within the economy (formation of the main elements of aggregate demand and supply) in relationship with the vectors of gross and*

final product, vector of incomes of the members of the society, price vector and the level of interest rate” (Nekipelov, 2006). In doing so the vector macroeconomics will treat as optimal such a state of the economy (or its sequential states in dynamic perspective), which provides for the harmonization of the interests of the members of the society in the existing institutional environment. The classical macroeconomics’ emphasis on economic growth is replaced here by the orientation to economic development of multidimensional nature.

And now several considerations about the role of mathematics for pure economic science.

The very fact that mathematical tools play and will play a major role in this sphere raises no doubts. But does it mean that with these tools one can solve any economic question? Can we proceed from the idea that the language of mathematical formula is able to crowd out usual verbal constructs from the description of regularities in the functioning of the economic system? Will not the economic science become because of this a variety of applied mathematics disciplines?

I believe that the answer to all these questions should be negative because, as was shown above, the task of the economic theory goes far beyond the description of quantitative interrelations between different economic variables. For example, mathematical methods help discover quantitative consequences of the capitalist firm pursuit to maximize this or that indicator (economic profit, rate of profit or capital yield), but the nature of the firm’s motivation can be substantiated only on the basis of qualitative reasoning.

At the same time the role of mathematical modeling should not be limited to the definition of particular quantitative relationships between individual economic variables. Ideally, the development

and further improvements of the software complex, which would integrate qualitative relations between different elements of the economic system, discovered on the basis of its meaningful analysis, could be the next step after the coherent economic theory is constructed. In fact, it’s about a creating a kind of a virtual economic robot, which would make it possible to test this or that hypothesis, to assess possible consequences of changes in parameters of the virtual economy, to forecast results of different economic policies. The comparison of results achieved in real and virtual economies under the same conditions would help to assess the reliability of the theoretical constructs underlying the software complex.

The role of new pragmatism

It may seem paradoxical, but the proposed approach to pure economic theory rather supports than rejects the new pragmatism scientific program. The point of the program is directed not against the theory as such, but against numerous dogmatic concepts that do not correspond to reality; the modern theory being, unfortunately, a source of such concepts. As G.W. Kolodko puts it: *You shouldn’t allow yourself to be seduced by stereotypes, consensual truths, or the conventional wisdom* (Kolodko, 2011, p. 173).

In no case can pure economic theory directly produce practical recommendations on how to address specific issues, which states or their integration unions, global economy as a whole face. After all, one cannot hope that overcoming the economic theory crisis, restoration of its integrity will transform the search of optimal decisions in the routine procedure that would happen in an automatic regime on the basis of the introduction of information in the above-mentioned software complex. An attempt to create a precise copy of the modern economy

is doomed to failure for purely practical reasons: efforts needed to collect and process the needed information exceed all imaginable limits. Such an approach is unrealizable because of the existence of the above-mentioned zone of uncertainty, which the pure theory inevitably faces. To forecast when and how the expectations of the members of the society and, as a result, their reactions to changing economic variables, will change and which corrections they will introduce in the mechanisms of collective decision-making is absolutely impossible.

It follows then, that there is no alternative to the use of simplified models based on an aggregated and, to a certain degree, heterogeneous information for the decision-making. It is also true that the tools used for this purpose will necessarily have an eclectic character. They will include classical macroeconomic models, econometric instruments, and sociological surveys. The search for optimal solutions necessarily requires consideration of cultural and socio-psychological characteristics of the society, of the political mechanisms used by it. In this sense, one of the main ideas of the new pragmatism – successful applied economic research cannot be conducted without taking into account of the so-called non-economic factors – is absolutely justified. Taking into account the existence of the uncertainty zone, that is imminent to the social sphere, the thesis, according to which it is necessary to use those macroeconomic models that correspond to the maximum extent possible to the specific characteristics of the object and, therefore, to reject the conclusions drawn in another situation, is fully rational. And, at last, an emphasis on the necessity to move the center of gravity from the investigation of economic growth to the analysis of socio-economic development, manifested rather in the dynamics of a system of indicators than of a single

indicator, deserves full support (Kolodko, 2014).

However, the success of researches based on the ideas of the new pragmatism will be the greater the more they will build on fundamental findings of general economic theory. Thus, the latter should set a kind of a logical framework, which would simplify the process of decision-making in the socio-economic sphere. Several examples will illustrate this thesis.

G.W. Kolodko is, to my understanding, perfectly right when he insistently draws our attention to the necessity not to forget the tasks facing the society, its interests when formulating economic policy (Kolodko, 2014). He emphasizes the importance of preventing excessive income differentiation for a harmonious development, puts forward the requirements of the moral nature to the behavior of business and the functioning of the economic system as a whole. In the international sphere he actively promotes the coordination of interests of numerous participants of the globalization process. But is it not obvious that only deep study on an abstract level of the problem of economic interests and social choice can give solidity to these recommendations.

Conclusions

The general conclusion of the reasoning presented in this paper can be summarized as follows.

The potential of the new pragmatism by G.W. Kolodko should, by no means, be demanded only today when economic theory is in crisis. But I have no doubt that it has all chances to be demanded tomorrow as well when due to common efforts of the economic community this crisis will be overcome. Simply then the new pragmatism will be considered not as an alternative to pure economic theory, but as a reliable bridge over the uncertainty zone lying between abstract and real economies.

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