Abstract: Marxism includes the method, philosophical, sociological, and economic doctrines, and also refers to the political movement founded by Karl Marx in the middle of XIX century. In this paper, an economic aspect of Marxism is emphasized. The paper discusses economic Marxian ideas as theoretical and methodological basis for the institutional analysis. First, the history of Marxism in Russia is presented. Second, the specific approach of the Marxian school of economic thought to the analysis of social and economic institutions is shown. Third, the most general features and a heuristic perspective of the systemic paradigm in economic theory (Kornai, 1998) are presented. The systemic approach deals not just with individual details of the economy but with the system as a whole, and not just with the economy but with the political, ideological and social dimensions, paying special heed to the interactions between each sphere. Marxian approach is a vivid example of systemic paradigm's thinking in economic thought of XIX century. Fourth, the institutional matrices theory (IMT), or X-and Y-theory (Кирдина, 2001; Kirdina, 2001, 2010, etc.), developing Marxian approach and systemic ideas, is presented. IMT has been worked out in Russia at the Novosibirsk school of economic sociology. According to this theory, so called an X-matrix, formed by institutions with a redistributive economy, a unitary political order and a communitarian ideology, i.e. with priority placed on the “We” over the “I,” prevails in Russia and China, along with most Asian and Latin American countries. And so called a Y-matrix, formed by institutions with a market economy, a federative political order and an individualistic ideology, i.e. with priority on “I” over “We,” prevails in North America, Europe, Australia and New Zealand. Other words, in each society both X- and Y-matrices interact, with one of them permanently prevailing. The prevailing matrix defines a performance framework for appropriate development of complementary institutions from the other matrix. Then common assumptions shared by Marx’s economic doctrine and IMT will be brought out and updates to Marx will be shown. IMT will be also considered in context of the systemic paradigm. Fifth, an explanatory power of IMT is shown by the cursory analysis of post-soviet reforms in Russia, China, and East-European countries. From IMT’s perspective, transition processes in the countries of post-socialist Europe and Russia are both similar and different. In the course of their transformation European countries are restoring the dominant position of these institutions, which corresponds to their historically prevailing Y-matrix of institutions. They return to their previous path of historic development, which had been deformed by the postwar Soviet influence. As for Russia (and China as well), it is looking for the new institutional balance in favor of the structure of its X-matrix’ institutions in new global challenges. Sixth, the paper ends with Conclusion.

Key words: institutions, economic systems, Marxian approach, institutional matrices

JEL codes: B24, B25, P20, P51

---

1 This work is partly supported by the Russian Foundation for Humanities, project № 11-02-00088а.
I. Introduction to History

The famous work by Karl Marx Das Kapital (Volume 1) was translated into Russian in 1872 after 5 years of having been published in Germany. "The book for a brief time enjoyed greater renown in Russia than in any other country, and it won a warm reception" (Resis, p. 219, 1970). Marx kept up more or less steady relations with the Russian socialists and took an interest in the economic and social conditions of the tsarist empire (see Karl Marx and Frederick Engels, 1942). The person who originally introduced Marxism into Russia was Georgy Plekhanov, but the person adapted Marxism to Russian conditions was Vladimir Lenin who is well known as a founder of Marxism-Leninism (Albert, Hahnel, 1981).

The censorship authorities of tsarist Russia permitted the publication in Russia of Marx's work - the first version of Capital ever to appear in another than the German language. The decision was based on this precious argument: "Although the political convictions of the author are entirely socialist and although the whole book is of a definitely socialist character, the manner of its presentation is certainly not such as to make the book open to all, and in addition it is written in a strictly mathematically scientific style so that the committee declares the book to be immune from prosecution" (Korsch, 1938).

However, despite "the manner of its presentation", the book has become opened to Russian economists accepted fundamental principles of Marxist economic theory (Munro, 2007):

(a) Stage-Theory of Economic and Historical Development: from Slavery (Graeco-Roman) to Feudalism (Medieval) to Capitalism to Socialism and finally its highest form, Communism;

(b) Dialectical Materialism with its core the concept of internal contradictions, in turn based on the Hegelian concept that historical progress is achieved through the clash of opposites and their ultimate resolution in the form: thesis + (vs.) antithesis -> synthesis. From this is developed the theory of the class struggle as the central historical dynamic explaining the transition from one stage to the next. In each stage the economic superstructure determines social classes and the nature of the ruling class; but from those economic dynamics develops the antithetical or opposing class which, through violent conflict, will inevitably bring about the destruction of that ruling class;

(c) The Labo Theory of Value as a major pillar of traditional Marxian economics. The theory's basic claim is that: the value of a commodity can be objectively measured by the average number of labor hours required to produce that commodity.

The way this historical process of adaptation of the Marxist doctrine has been worked out during the following decades by the different schools of the Russian economists. The fate of capitalism in Russia was the main focus for discussions (like nowadays). Lenin in his principal economic work The Development of Capitalism in Russia (1899) presented arguments that Russia as well as Western Europe also followed main trends of economic development including the capitalistic stage "as a necessary historical stage in the process of the ultimate realization of a truly socialist society". Another point of view was presented by the learned populist writer Nikolai Lopatin, the first Russian translator of Das Kapital. In the early 1890's he substantiated the Marxistically revised populist theory of the impossibility of a normal and organic development of capitalism in Russia.

---

2 Volume II - in 1885, and volume III - in 1896.
3 Up to the end of 1880s Das Kapital was included into the list of banned books in the Russian empire.
"When from our present vantage point [1938 - SK] reached by historical experience we look back at the heated theoretical disputes of that earlier phase there seems to be a quite obvious relationship between the populist theory of the "impossibility of a normal and organic development of capitalism in Russia" ... on one side, and the two mutually opposed theories which in a recent phase of the development of Russian Marxism faced each other in the form of a ruling "Stalinism" and an oppositional "Trotskyism." Paradoxically enough, both the prevailing "national-socialist" theory of Stalin as to the possibility of building up socialism in one country, and the apparently diametrically opposed "internationalist" thesis, set up by Trotsky, of the inevitability of a "permanent" revolution - that is, of a revolution passing beyond the bourgeois revolutionary goals simultaneously on the Russian and on the European (or the world-wide) scale-rest on the common ideological basis of a ...belief in the absence or impossibility of a "normal and organic" development of capitalism in Russia" (Korsch, 1938).

As for Marx, he did not assert that capitalism must develop in Russia but only that, if it did, it would then be subjected to capitalism's inescapable and pitiless laws. The genesis of capitalism, he insists, is not a universal destiny "imposed by fate upon every people, whatever the historic circumstances in which it finds itself" (Karl Marx and Frederick Engels, 1942, p. 354. Cit. by: Gouldner, 1980). Toward the end of 1877, Marx wrote an unpublished reply to the editor of the popular Russian magazine Otechestvennye Zapiski dealing with the same issues. Marx then formulated the question as being whether the Russians can "find a path of development for their country which will be different from that which Western Europe pursued and still pursues" (Ibid., p. 352. Cit. by: Gouldner, 1980).

During the first ten years that followed the Socialistic October Revolution of 1917 (looked like the triumph of Marxism) Russian economists shared the belief that political economy, the traditional Marxist term for the science of economics, was to be applied to the capitalist order only. In the early 1930s, however, our economists were compelled to acknowledge the need for and thus to elaborate a political economy of socialism. Adam Kaufman's article "The origin of 'the political economy of socialism'. An Essay on Soviet Economic Thought" (1953) describes and examines this economic theory of the Soviet period as a paradoxical, but significant case.

The political economy of socialism applied and developed Marxian ideas in Soviet Russia. It has been shaped "with deliberate purpose of providing an environment such as would foster collectivistic habits of thought and behavior in replacement of their individualistic counterparts (Tuckerman, 1933, p. 637).

Here are some characteristic positions of the political economy of socialism from the Soviet textbook on Political Economy, prepared by the Economics Institute of the Academy of Sciences of the USSR published in the USSR in 1954. They reflect a normative point of view on an institutional structure of Soviet society (Political Economy, 1957):

*Position 1 - Social Ownership of the Means of Production – The Foundation of the Production Relations of Socialism:*

1) Socialism has two forms of social property: State property and cooperative collective farm property. There are correspondingly two kinds of socialist economy: State enterprises and co-operative (collective) enterprises.

2) In socialist society, State property is the property of the whole people. State property is the highest and most developed form of socialist property. The leading and determining role in the entire national economy belongs to it. In the U.S.S.R. it includes the overwhelming bulk of the nation's wealth. Co-operative collective farm property is the group property of individual collective farms, industrial co-operative artels and consumer societies.

---

4 The first edition of the Political Economy textbook, published at the end of 1954 in over six million copies (!), was rapidly sold out. Besides the Russian original, there were versions in many of the languages of the peoples of the USSR, and the book was also published in a number of foreign countries.
(3) In socialist society personal property extends to the objects of consumption. A special form of personal property is the personal property of the collective farm household. The personal property of the working people grows with the increase of socially-owned socialist property.

(4) The production relations of socialism are characterised by: (1) complete predominance of social property in the means of production, existing in two forms—state property and co-operative collective farm property; (2) emancipation of the working people from exploitation, comradely co-operation and socialist mutual aid between people in the process of producing material wealth; (3) distribution of the product in the interests of the working people, according to the principle: to each according to his labor. Under socialism the division of labor into necessary and surplus labor, and also the division of the product into necessary and surplus product, disappear. The labor of workers engaged in socialist production is divided into two parts: work for oneself and work for society. In work for oneself, the workers make the product which is distributed among them according to the quantity and quality of their labor. In work for society, they make the product which is used for social requirements.

(5) In socialist society the relations of production fully conform to the character of the productive forces, and are the major and decisive force which determines the uninterrupted growth at a rapid pace of the productive forces of socialist society. The contradictions which arise in the course of socialist construction between the productive forces and the relations of production are not of an antagonistic character and do not develop into conflicts, since socialist society is able in good time to bring the relations of production into accord with the level of the productive forces.

Position 2: The Basic Economic Law of Socialism:

(1) The economic laws of socialism are objective laws, independent of the will and consciousness of man. They express the relations of fraternal cooperation and socialist mutual aid of workers freed from exploitation. The economic laws of socialism do not operate as a blind and destructive force: they are recognised and utilised by socialist society. The Communist Party and the Socialist State base their economic policy on the economic laws of socialism.

(2) The basic economic law of socialism determines all the main aspects and main processes of development of the socialist mode of production, the purpose of socialist production and the means to achieve this purpose. The essential features and requirements of the basic economic law of socialism are the securing of the maximum satisfaction of the constantly rising material and cultural requirements of the whole of society, through the continuous expansion and perfecting of production on the basis of higher techniques.

(3) In socialist economy the growth of requirements (the purchasing power) of the masses is the motive force of socialist production and drives it forward. The continuous growth of socialist production is the material foundation for the steady growth of consumption by the people and the growth of new requirements. The priority development of the production of means of production is the essential condition for the continuous growth of socialist production. Socialism ensures the steady development of advanced techniques, essential to the continuous growth of perfecting the socialist production and the ever fuller satisfaction of the growing needs of the working people.

(4) Corresponding to the constantly increasing mass of products for oneself and products for society, the real incomes of the working people are constantly raised. Socialism means a constant improvement in the working and living conditions of the people. It opens up the fullest opportunities for cultural development and makes the entire wealth of technique, science and culture the possession of the whole people.

(5) Expressing the vital interests of the people, the Socialist State guided by the Communist Party develops on an ever-increasing scale its economic, organising, cultural and educational activity, directed towards securing a continuous growth of production and a steady rise in the level of welfare and culture of the people. The development of the socialist mode of production proceeds through the surmounting of contradictions and difficulties. Relying on scientific knowledge of objective economic laws and making use of them, the Socialist State assures the victory of the new and progressive over the old in all spheres of the economy, and directs the development of society along the road to communism.

The political economy of socialism and the Marxian political economy of capitalism were mandatory parts of higher education courses for economists at all universities in the Soviet Union. Each student was required to read all four volumes of "Das Kapital" and show the teacher conspectus of Das Kapital, written by his/her own hand.

After the fall of the Soviet Union, Marxism as the official ideology and the trend of economic thought almost disappeared both at universities and on the research agenda.

In the 1990s, courses on Marxist political economy in all universities of the country were replaced by courses on economics. Nevertheless, in recent years, a revival of Marxism
has gradually begun (independent courses are introducing in some Russian universities, for instance, in St. Petersburg – “The Place for Marxism in the Contemporary World” is an example). It sounds strange but in contemporary Russia, Marxism appears to be less widespread than in world and western economic sciences.

In present, the application of Marxist ideas in economic scientific research in Russia goes in two principal directions. First, Marxist ideas are used to criticize modern capitalism and to show its unacceptability for Russia. Alexander Buzgalin, Ludmila Bulavka, and Andrey Kolganov from the Lomonosov Moscow State University represent this trend (Buzgalin, Bulavka, Kolganov, 1997/1998; Buzgalin, Kolganov, 2003; Grinberg, 2013). Secondly, new concepts are being constructed using Marxist methods of analysis and substantive provisions are being developed on the basis of achievements in modern economic thought. Such an attempt, namely, the institutional matrices theory will be presented below in section 4.

2. Marxian school of economic thought and institutions

Main schools of economic thought, it is known, are Neoclassical, Austrian and Marxian. We agree with David Young that regardless of the variety of alternative approaches and schools (regional and national) in the economic thought, these major schools are characterized by specificity of original philosophical and methodological preconditions, definite historical roots and accepted original examples of research programs (Young, 2002). We think it is possible to state that scientists, who are seriously working in the area of economic theory, belong to one of these schools in a manifest or implicit way because they proceed from the assumptions accepted in the above named schools of economic thought even if they are not aware of it. Neoclassical, Austrian and Marxian schools are nowadays the main constructing frameworks for modern meta-theories, including institutional concepts.

“All other research approaches are under influence (or in the frame of development) of one of these schools. ... This may be so with respect to the institutionalist approach, which is clearly the most relevant in the present context. Institutional economics encompasses a variety of different theoretical perspectives (based on correspondingly different philosophical foundations) united by an emphasis or an explicit discussion of institutions and institutional change. The three schools identified here may be regarded as having different views about the role and importance of institutions, and much of the content of what is often described as being an institutionalist approach may be regarded as being influenced by one or another of these schools” (Young, 2002, p. 49).

What are the features of Marx’s approach (and Marxian school of economic thought) to the analysis of institutions? From one side, we suppose, it makes sense to define the contribution of Karl Marx as a school founder. From the other side, it is important to understand the peculiarities of approaches of the modern representatives of the Marxian school.

We start by outlining the views of K. Marx himself. First of all, different from economists of other schools he emphasizes the important role of material environment in building the economic institutions. The structure of institutions (K. Marx considered such spheres of institutions’ functioning as economy, politics and ideology) is materially determined by the level of development of the productive forces. Institutions are the result of social (collective) practices and depend on the manner in which humans collectively produce the means to life (the materialist conception of history or historical materialism).

Another peculiarity of the Marxian approach resulting from the first one is the acceptance of the fact that a particular nature and a particular level of development of the productive forces shape the evolution of economic systems. Marx has started the basis for
the analysis of «multiplicity» of economies in their commensurate notions and he considered the capitalistic economy just as one of them. Economies differ from each other first of all by differences in the ownership system. For K. Marx the ownership relations – are the most important institution that defines the specificity of the whole economic structure. And at last, taking into consideration the historicity of institutions – Marx wrote about this phenomenon for the first time in his review of the Western Europe economic development in XV-XIX centuries – is also a peculiarity of Marxian analysis. We know that these ideas were later accepted by other schools as well but the reasons, why the economic institutions emerge and why they change, were different from those used in the Marxian tradition.

Taking the idea that social change occurs because of the struggle between different classes within society, K. Marx developed the theory of revolution. He used the following logics – changes in the material characteristics of productive forces alter the situation of the main social classes; this fact provokes the development of the class struggle and as a result – the revolutionary change of productive means including the major re-building of institutions in economic base, in political superstructure as well as in dominant ideology.

Marx considered the emergence of the economy and economic institutions as results of social (collective) activity in the course of long-term iterative process. Marxian dialectics showed the interdependence between public conscience, social practices and conditions in which people live (Marx, 1904). So both conscious human actions and the material “surrounding” factors are reflected in the results of social activity.

To what extend is Marxian methodology developed further by the followers of the Marxian economic school? Let us review only one sphere of this research and in particular the study of institutions. Surely it is hard to talk about the unity of Marx’s economic theory – it is huge and inherently not uniform. The assumptions that still unite Marxists and make them different from the representatives of other schools are, in our opinion, the following.

First is the historical materialism based on the assumption of the material conditionality of economic development including the building of institutions.

Secondly, the generic feature is the critical attitude towards the institutions of the modern market economy («capitalistic economy» if one follows Marx’s terminology). This is why Marxists underline the historically changing nature of the relevant institutions, their “non-uniformity” which is different from the representatives of Neoclassical and Austrian schools for whom the exchange relations (that of the market economy) have universal and historically “eternal” nature. Because of their criticism of the modern society (see e.g. O’Hara, 2000) the institutionalists of the Marxian school are often called “radical institutionalists”.

Third, the study of the ownership nature and related peculiarities of the social structure continues to be the focus of the institutional research for modern Marxists as it was true for K. Marx himself.

In 2006 scientists of Marxian school from different countries started the International Initiative for Promoting Political Economy (www.iippe.org) to promote the positions of the Marxian political economy. This Initiative includes the group that studies institutions (Political Economy of Institutions Working Group), in co-operation with organizations that develop “old institutionalism” (European Association for Evolutionary Political Economy, Association for Evolutionary Economics, Association for Institutional

5 We can judge about non-uniformity of Marxism using the following facts: for example some Marxists take the labor theory of value from Marx’s economic theory and develop it (as P. Sraffa), when others try to combine Marxism with the marginal utility theory (as Austro-Marxists K. Renner, O. Bauer, O Neurath and others). In the USSR Marxism was presented as political economy of socialism became a part of the official communist ideology that supported the firmness of the socialistic regime. At the same time in the Latin America countries Marxism served as ideological basis for the social revolutions etc.
Thought), as well as with organizations that unite “new institutionalists” (International Society for New Institutional Economics).

Recently the institutions in the countries in transition and different historical and cultural features started to be reviewed within the Marxian school. Shifting the focus of analysis from “traditional capitalism” countries to these countries is related to the fact that processes in the countries in transition can be hardly described using the terms of neo-institutionalism as a part of economic mainstream. Generally, in the ‘Big Four’ countries (Gregory Sandstrom term), including the USA, the UK, Germany, and France, Marxian School has a marginal position. Nevertheless, in recent years Marxian economics has begun to be rendered first of all by institutionalists: e.g. Geoffrey M. Hodgson (2003) includes Marx’s economic system alongside of J.M. Keynes’s approaches in number, though the theoretical constructs are under-estimated about what understandings they allow about the economic world.

We should state that the financial-economical crisis of 2008-present (?) intensified disappointment of some of the economists and politicians concerning the ideas of the free market and possibilities of neoclassical theory. In this situation Marx's ideas attract more attention. Inherent to Marx's approach criticism of the capitalistic system and reference to its instability became especially actual as the world crisis broke. The analysis of how often Marx was referred to during financial crisis discussions in mass-media proves that during only one year of crisis the frequency of these references has increased more than twice compared to 25 years preceded the crisis! This data taken from the work of A. Oleinik (Oleinik, 2010, ch.9.) is shown in the table 1.

**Table 1.** Frequency of joint occurrence of references to Marx and word phrases “financial crisis” in world and American English language press

<table>
<thead>
<tr>
<th>Period</th>
<th>Key words</th>
<th>Marx/marx...*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting from 1980s up to October 8 2007</td>
<td>24/74</td>
<td></td>
</tr>
</tbody>
</table>

Source: Lexis Nexis Academic
*words were counted if they had other letters or combination of letters after "marx-", i.e. Marxian, Marxism etc.

So, we should probably expect an increase of popularity of Marxian school of economic thought, which for many years remained at the periphery of the economic theory. I believe that the potential of Marxist political economy’s (and sociological as well) project is still undervalued by the institutional theoreticians. In most debates between institutionalists about Marxian legacy only its historical significance (Hodgson, 2006; Осадчая, 2005) or the role of Marxism as a criticism of capitalism (e.g. works of URPE economists or «Critical Political Economy» by P. Golding and G. Murdoch, 1991) is recognized, as opposed to attempts at creative development of Marxism.

3. Systemic paradigm in economic theory

---

6 The Union for Radical Political Economics (URPE) is an interdisciplinary association devoted to the study, development and ... a continuing critique of the capitalist system... http://www.urpe.org/about/abouthome.html
Other important reason (after school of economic thought) that defines the difference of opinions among economists-theorists is the fact that scientists follow the specific paradigms when they do their research, in addition to those of scientific schools. To our opinion paradigm has a broader meaning that exceeds the scope of economic theory, in which we include the above mentioned schools.

Indeed, the fact that an economist belongs to the specific scientific school defines primarily a set of his/her qualification professional knowledge, notion and terminology system related to the specific perspective of economic research, character of scientific communications and association with the specific set of appropriate scientific literature.

Differently, the paradigm is understood not a specific to a field of science but science as a whole or a wide set of sciences. The notion of a paradigm established in the methodology of science by T.S. Kuhn (1975) is more fundamental and implies a principal vision of the universe and general philosophic values, character of symbolic generalizations, similar concepts and problem solving templates. The adoption of one or another paradigm characterizes the economist not as specialist or professional in the specific subject matter but as a scientist in a general sense, it demonstrates particularities of his/her scientific vision no matter which school of economic thought he/she follows.

We suppose that the major paradigms specific for social and humanitarian sciences include anthropocentric, evolutionary and systemic paradigms. Let’s note that they are not separated by strict impermeable boundaries. Since they have developed sequentially we may sometime speak that previous paradigm is nested into the following, more encompassing one. Nevertheless they have distinctive features in application to the economic theory, and these features are discussed below.

The anthropocentric paradigm appeared before others, it reflects the perception of economics as “a science of individuals’ behavior”. The concepts of an anthropocentric character exist not only in the social but also in the natural sciences. In the social sciences and economics as well the anthropocentric paradigm manifests itself in the assumption that the individual’s self-dependency is an outcome of free choice and responsible action lies at the origin of concepts being developed on its basis. Priority of an individual over interests of any community and inalienability of natural rights of an individual also forms the core of the anthropocentric paradigm (Новая философская энциклопедия, 2000, p. 142) in economics. Liberal and individual values are accepted as main values, and the main methodology principle is considered to be “the principle of methodological individualism”. The society structured by institutions as the rules of human interaction is considered as an aggregate of multiple individuals. The main economic institution of the society is the institution of exchange. Institutions are created by people and are presented as individuals’ deliberate or spontaneous behavior.

The following evolutionary paradigm, formed as a system of views later (based on C. Darwin’ works), considers economic development process as a non-equilibrium process, in which instead of individuals economic agent populations and evolutionary laws act: heredity, mutation, and natural selection. That in turn assumes the agents diversity and competition for resources are necessary. The consequences of the natural selection law are adaptation to the environment, survival of the strongest, and transition of survival features in population, although mutations happen. Economic institutions as money, e.g., are results of such kind of process (Menger, 1982).

---

7 We do not separate here self-organizational synergetic paradigm which is being established last decades (see work of Prigozhine, Stengers, 1984) as extension of systemic paradigm, we suppose.
8 For example, the anthropic principle is one of fundamental principles of contemporary cosmology (Новая философская энциклопедия, p. 131 [New Philosphic encyclopedia. Volume 1. Moscow, Mysl]).
Now, let's discuss the systemic paradigm. While the evolutionary paradigm was established before the twentieth century, the systemic paradigm has been developed and widely accepted in the second half of the twentieth century.

Let us consider the most general features of the system paradigm which appear in economic researches. They are described in the well-known study by J. Kornai (1998 [2002]):

1) The social system is considered as a whole. Interrelations between the whole and its parts are the subject of analysis;

2) Research has an integral character and can't be assigned to any specific field of science (economics, sociology, political science). Special attention is paid to the interaction of different areas of society functioning;

3) The research focuses on the institutions that define the framework and flow of specific processes. Institutions are understood in a broad sense as structures formed historically and developed evolutionary, [types of institutions express particular interrelations between the society as a whole and individuals as it “parts” – S.K.];

4) There is a close connection in understanding of the current social organization and of the historical process in which it appeared;

5) The main attention is paid to major changes and deep transformations, not to small constant changes;

6) It is stated that system “dysfunctions” are inherent, are built in the system, they may be compensated but not eliminated since their self-reproducibility is deeply rooted in the system itself;

7) Comparison is a typical method within the systemic paradigm. It is conducted mostly on the qualitative level.

Kornai presented the list of authors, who, from his point of view, implemented the systemic paradigm in economic studies. The list includes K. Marx, the founder of Marxist school in economics, members of Austrian (neo-Austrian) school as J.A. Schumpeter, L. von Mises and F. von Hayek, as well as V. Eucken and K. Polanyi. Among contemporary scientists following this trend Mr. J. Kornai also included himself.

Most of those who work in the framework of this paradigm have studies that go beyond the pure economic theory and analyze links between economic relations and general changes in social life (for example, “Capitalism, Socialism, and Democracy” by J. Schumpeter, “Great Transformation” by K. Polanyi etc.).

The formation of the systemic paradigm shows the need for systemic theories that have the status of scientific ontology (paradigms, “solid cores” of research programs). In the middle of the last century Schumpeter wrote that “Our time revolts against the inexorable necessity of specialization and therefore cries out for synthesis, nowhere so loudly as in the social sciences...” (Schumpeter, 1951, p. 56) and it is true so far. Empirical generalizations in economics become more and more fragmentary, as well from the growing number of particular theories do not allow to solve problems of analyzing and comparing “big economies” over prolonged historical periods. Up to now contemporary economists have not yet created theories of this kind, widely accepted by public and scientists, and that leaves the prospective of systemic paradigm in economic research open.

9 While Darwin's Theory of Evolution is a relatively young archetype, the evolutionary worldview itself is, nevertheless, as old as antiquity (remember ancient Greek philosopher Anaximander).

10 Kornai outlined specially the similarity of the system paradigm and neo-institutional theory in that respect, while making the point of their differences in other areas (Kornai, 1998 [2002], p. 10).
The systemic paradigm according to its description includes evolutionary elements\textsuperscript{11}, but it is wider than the evolutionary paradigm. While the evolutionary paradigm focuses on the behavior of economic agents, the systemic paradigm focuses on the features and dynamics of the economic system in the context of the society as a whole.

The followers of Marxian school of economic thought conduct their research within the framework of different scientific paradigms. As for the representation of Marxian school in \textit{anthropocentric paradigm} it seems to be “empty box” because anthropocentrism is methodologically opposed to socio-centrism that was typical for Karl Marx and his followers\textsuperscript{12}. Nevertheless we know “analytical Marxism”. It’s representatives (E.O. Wright, G. Cohen, J. Elster, J. Roemer etc.) denied methodological holism and dialectics of Marx but tried to keep several Marx’s categories and at the same time to use the neoclassical methodology (mathematical methods, game theory, etc.). Also analytical Marxists accentuate the intentional activity of individuals that is described as “Rational Choice Marxism” (Gintis, 1987). But this school worked actively for quite a short period of time in 1980-1990 years (Wright, 2007; Хаиткулов, 2009).

And what about the \textit{evolutionary paradigm} and Marxian school of economic thought? One of the founders of institutionalism T. Veblen, who was probably one of the first to apply the evolutionary theory categories to economics (Veblen, 1898), is not so far from Marxian school we suppose\textsuperscript{13}. It is known that T. Veblen was very respectful towards Marx, though he did not agree with him on every point, especially about the question of labor theory of value. But Veblen as well as Marx emphasized technological factors in the evolution of institutions, viewed institutions’ development as a natural historical process (revolutions being the part of it). Also both Veblen and Marx admitted that group (collective and class) characteristics are more important than individual (in contrast to Neoclassical and Austrian schools) for the analysis of social economic phenomena.

We also consider C. Freeman and C. Perez (Perez, 2002), well-known researchers of cycles of economic development who developed further the “Another Canon” (Reinert, 2007) as the representatives of Marxian school of economic thought working in the evolutionary paradigm.

Most interesting for us are economic studies within the systemic paradigm in Marxian school of economic thought. In modern Russia we can see a new wave of such topics. This is a feature of Russian economic thought, wherein evolutionary and institutional research investigations jointly form the basis for a Renaissance in the systeic paradigm of economic research with a dynamic and self-organizational vision.

First of all, Georg Kleyner (the Central Economic Mathematical Institute of the Russian Academy of Sciences, Moscow) develops his new theory of economic systems as an alternative to both neoclassical and neo-institutional evolutionary mainstream. From his point of view, “according to a system paradigm, the functioning of an economy, i.e., the realization of the processes of production, distribution, exchange, and consumption of material and nonmaterial goods, is viewed through the prism of creation, interaction, transformation, and liquidation of \textit{economic systems}. The principle of methodological individualism, basic to the neoclassical paradigm, gives way to the principle of methodological systematics, basic to the system paradigm. This means that the main actors

\textsuperscript{11} Particularly it explains the fact that in some works Friedrich von Hayek and Ludvig von Mises (referred by Kornai as representatives of system paradigm) stress the “accent on evolutionary approach” that is typical for these representatives of new Austrian school (see: История экономической мысли, 2001, chapter 42).

\textsuperscript{12} It is evident in Marx’s study of socioeconomic formation as “a society at a definite stage of historical development” whereas an individual is understood as “personal element of productive forces”.

\textsuperscript{13} This point of view contrasts with W. M. Duggar-HJ Sherman vision. These authors (Duggar, Sherman, 2000) believe that approaches of Thorstein Veblen and Karl Marx to social evolution are both radical, but very different and contradict each-other.
in economics will not be independent (and spatially separated from one another) individuals, but only relatively independent (possibly overlapping spatially) economic systems” (Kleyner, 2009, p. 4).

Marxian economic school and systemic paradigm were represented also in research of the Novosibirsk economic-sociological school (Davydova, 1997), or NESS\textsuperscript{14}. In 1970-1980s not only canonical - for the soviet social science scholars - Marxian tradition but systemic approach as well was a main methodology for Novosibirsk sociologists (Социальная траектория..., 1999, chapters 3, 4). On the eve of perestroika in 1983 a founder of NESS Tatyana Zaslavskaya prepared the report “About the perfection of socialist relations of production and problems of economic sociology” (later it became known as the Novosibirsk Report in the West and was often considered one of the first signs of perestroika). “Although expressed in terms of Marxist theory, this paper - an outline of a proposed research project to study the social mechanisms of economic development... - was sharply critical of current conditions” (Zaslavskaya, 1990, p. xii-xiii).

In the 1980-1990s the social mechanism of economic performance became the main subject of the analysis for the NESS team and Marxian-cum-systemic methodology prevailed. Many of us were fascinated by these studies and ideas. Later they served as a starting point to build our own concepts. The institutional matrices theory is one of them (Kirdina, 2012a).

4. Institutional Matrices Theory (IMT), or X- and Y-theory

We apply a socio-economic approach with its attempt to synthesize theoretical ideas from economic and sociological sciences. A list of main “predecessors” whose economic and sociological ideas are important for the institutional matrices theory (IMT) can be drawn in the following manner:

- August Comte (1798-1857, French philosopher and social theorist) – “progress as the development of order”;
- Karl Marx (1818-1883, German philosopher, sociologist, economist) - a materialist concept of history, a systemic (sociological and political economic) approach;
- Emile Durkheim (1858-1917, French sociologist) – sociology as a science of institutions and the concept of a sui generis society;
- State School in Russian historiography (second half of the 19\textsuperscript{th} century – B. Chicherin, A. Gradovski, M. Vladimirski Budanov etc) – the explanation of the state’s leading role in Russian history on the basis of natural conditions and the counterpoising of Russian history with the history of Western Europe;
- Pitirim Sorokin (1889-1968, Russian-American sociologist) – the idea of distinction between social and cultural systems;
- Talcott Parsons (1902-1979, American sociologist) – structural functionalism
- Tatyana Zaslavskaya (born 1927, Russian sociologist) – the idea of the “institutional core” for the social mechanism of economic performance;
- Karl Polanyi (1886-1964, Hungarian intellectual, forced to flee to Austria, USA and Canada) – economic anthropology and the concept of redistributive economy;
- Douglass North (born 1920, USA, Economics Nobel Laureate “for having renewed research in economic history”) – he coined the ‘institutional matrix’ term;
- Harvey Leibenstein (1922-1994, Ukrainian-born American economist ) – he was first to use the idea of X-efficiency;
- Olga Bessonova (born 1958, Russian sociologist) – the economic “razdatok” theory;

\textsuperscript{14} The flourishing of NESS activity was in a Soviet period of 1970-1990s.

IMT is based also on the ideas of cumulative causation (Veblen, 1899), embeddedness (Polanyi, 1944) and path dependence (David, 1985) that have confirmed the important role of institutional structures for social and economic development.

Based on the above-mentioned ideas, we elaborated a model of human society as a social system structured along three axes: economy, politics and ideology (see Fig. 1). These value spheres are strongly interrelated morphologically as parts or sides or components of a whole.

**Figure 1. The main projections of society as a whole.**

Thus, social relations forming the inherent structure of such social system include the following:
- economic interrelations related to resources used for the reproduction of social entities;
- political, i.e. regular and organized social actions to achieve the defined objectives; and
- ideological interrelations embodying important social ideas and values.

Each sphere is regulated by a corresponding set of basic institutions. Institutions permanently reproduce the staples of social relations in different civilizations and historical periods. Basic institutions integrate a society into one ‘whole’ that is developing, sometimes with conflicts and at other times with harmony, sometimes with competition and at other times with cooperation.

Institutions have a dual character: they are objectively determined and humanly made at the same time. On the one hand, institutions manifest self-organizational principles in a society as a co-extensive natural-social system. On the other hand, institutions are the result of purposeful human reflection with regard to relevant laws and rules; they emerge and are shaped as ‘human-made’ entities. As T. Veblen wrote, “institutions are not only themselves the result of a selective and adaptive process ...; they are at the same time special methods of life and of human relations, and are therefore in their turn efficient factors of selection” (Veblen, 1899, p. 188).

Aggregations of interrelated basic economic, political and ideological institutions are defined as institutional matrices. Historical observations and empirical research as well
as mathematical modelling and a broad philosophical approach constitute a ground for our hypothesis about two particular interdependent types of institutional matrices existing around the world. Namely, we call the two types X-matrices and Y-matrices and compare the unique identities of each one in relation to the other. These matrices differ in function of the set of basic institutions forming them (see Fig. 2).

![Fig. 2. Institutional X- and Y-matrices.](image)

The X-matrix is characterized by the following basic institutions:
- in the economic sphere: *institutions of a redistributive economy* (term introduced by Karl Polanyi). Redistributive economies are characterized by the situation when the center (on the top!) regulates the movement of goods and services, as well as the rights for their production and use;
- in the political sphere: *institutions of a unitary (unitary-centralized) political order*;
- in the ideological sphere: *institutions of communitarian ideology*, the essence of which is expressed by the idea of dominance of collective, shared, public values over individual, sovereign, private ones, the priority of We over I.

The following basic institutions characterize the Y-matrix:
- in the economic sphere: *institutions of a market economy*;
- in the political sphere: *institutions of a federative (federativesubsidiary) political order*;
- in the ideological sphere: *institutions of a individualistic ideology*, which proclaims the dominance of individual values over the values of larger communities, bearing a subordinate character to groups and the personality, i.e. the priority of I over We.

In real-life societies and nations, X- and Y-matrices interact, with one of them permanently prevailing. Nevertheless, the matrices are not entirely exclusive of each other, given that both X- and Y-matrices co-exist concurrently in any given case. In other words, the social structure of any society can be singled out as a dynamic binary-conjugate structure of these two interacting, yet alternative institutional complexes. The domination of one of the matrices over the other is usually constant in the course of history. The institutions of the prevailing matrix therefore serve as a performance framework for complementary institutions from the other matrix (see Fig. 3).
Figure 3. Combinations of governing and complementary institutional matrices.

We contend that X-matrix institutions predominate in Russia, China, and India, along with most Asian and Latin American countries. In this case Y-matrix institutions are “a must” but they have a complementary and additional character. And conversely, Y-matrix institutions prevail in the most European countries and in North America, whereas X-matrix institutions are additional.

The structures and functions of basic institutions in X- and Y-matrices are presented in Tables 2-4. Table 2 shows that the same economic functions are enacted by specific institutions in different matrices.

Table 2. Institutions of X- and Y-matrices in the economy and their functions

<table>
<thead>
<tr>
<th>Functions of institutions</th>
<th>X-institutions (redistributive economy)</th>
<th>Y-institutions (market economy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulating access to goods (property rights system)</td>
<td>Supreme conditional ownership</td>
<td>Private ownership</td>
</tr>
<tr>
<td>Transfer of goods</td>
<td>Redistribution (accumulation-coordination-distribution)</td>
<td>Exchange (buying-selling)</td>
</tr>
<tr>
<td>Interactions between economic agents</td>
<td>Cooperation</td>
<td>Competition</td>
</tr>
<tr>
<td>Labor system</td>
<td>Employment (unlimited term) labor</td>
<td>Hired (short and medium term) labor</td>
</tr>
<tr>
<td>Feed-back loops (effectiveness indices)</td>
<td>Cost limitation (X-efficiency)</td>
<td>Profit maximization (Y-efficiency)</td>
</tr>
</tbody>
</table>

The property rights system ensures the basis for stable relations between economic agents. **Supreme conditional ownership** (X-institution) is specific in that the rules of access for the use of some objects in production and consumption are conditioned in the end by the ‘supreme’ (which in Russian means ‘from above’) level of economic hierarchy. These rules change over time and depend on external circumstances. The supreme hierarchical level of governance determines the rights of access in accordance with the public role and importance of given resources at each historical moment. If the objects belonging to any economic agent do not assure an essential contribution to total productivity or if they are not used for public benefit, then they can be legally seized and returned to public ownership or transferred to other productive ‘social economic’ agents. **Private ownership** (Y-institution) means that society sanctions all property rights (including the possession, disposal and use of objects) to individual or collective economic agents.

The transfer of goods within a respective property rights framework is regulated by redistribution or exchange. **Redistribution** (X-institution) in Polanyi’s sense of the term, describes the transfer process of material goods and services (and also property rights) not between entirely independent agents, but between agents and the center as their mediator. Historically, redistribution emerges in nations where the majority of economic agents depend on significant common resources (e.g. water, fertile land, rivers, roads, staple goods, etc). In such cases, it is necessary to coordinate transactions not only between
autonomous interactive agents, but also between dependent economic agents that can be involved explicitly or implicitly. The motivation to minimize transaction costs leads to the creation of one special 'supreme' center responsible for institutional coordination. All necessary information is accumulated in this center on the top, which the agents access. Appropriate resources are also concentrated in this center to support its coordinative functions. *Exchange* (Y-institution) means horizontal interactions between independent economic agents, primarily with the goal of gaining profit in a market economy. As Schumpeter wrote, "As far as it goes about market economy, for fundamental theory it makes no difference what kind of market economy it is: a system of primitive exchange between hunters and fishermen or a complex organism that we can see today" (Schumpeter, 1926, s. 74).

Since exchange (market) and redistribution (centralisation) are fundamental peculiarities of different economic systems, economies with predominating X-institutions can be rightfully named ‘redistributive economies’ (Polanyi, 1977), or ‘centralised economies,’ whereas economies with prevailing Y-institutions can be named ‘exchange or market economies.’

The next set of institutions regulates the type of interactions between economic agents. *Cooperation* (X-institution) establishes itself as a definitive institution if joining economic actors for common tasks (public projects) involving resources in the economy is more productive than restricting resources to use by separate, autonomous agents (private projects). *Competition* (Y-institution) stimulates the possession of limited resources by individuals (economic actors) when personal benefit is gained from owning (part of the) material resources, the technological environment and other means of production. There are many different models of competition in market economies, for instance "monopolistic competition" (Chamberlin, 1956) or "imperfect competition" (Robinson, 1933), etc.

Which institutions regulate the labour relations in X- and Y-economic systems? *Employment (unlimited term) labour* X-institution means the necessity of obligatory employment and forming public guarantees to attract the able-bodied population to work. The Japanese phenomenon of "lifelong hiring", for example, reflects this type of institution. Thus, the sphere of work also displays the laws of redistributing manpower (human resources), as K. Polanyi noted (Polanyi, 1977, p. 36). The essence of *Hired (short and medium term) labour* Y-institution is that labour relations are mainly in the sphere of mutual relations between the employer and the worker and tend toward hiring for a certain limited time according to a contract. "Normal" unemployment is a necessary attribute of such a system of labour relations. In the sphere of work, as Karl Marx wrote, labour-power becomes a commodity that is bought and sold on the market.

Those institutions that function with feed-back loops also perform a role in economic systems. Without competition, the efficiency of a redistributive economy can be achieved only with regulated cost limitations in each segment and in the economy as a whole. H. Leibenstain called this phenomenon “X-efficiency” (Leibenstain, 1966, 1978). Restraint on costs is carried out by means of normalizing expenses, price controls, tariffs and other measures with the purpose of raising overall economic efficiency. In contrast to *X-efficiency (Cost limitation)*, institutions in X-matrix institutions serve as feedback to the Y-matrix, namely via *Y-efficiency (Profit maximization)* institutions. These institutions identify the priority of profitability, or growing producer and consumer surpluses.

The basic political institutions in the X- and Y-matrices are presented in Table 3. X-political order represents a top-down model of society, while Y-political order characterizes a bottom-up model.

Territorial administrative organization of the nation-state is regulated by an *Administrative system (unitarity) institution* in X-matrices and a *Federative structure institution* in Y-matrices. The governance system, or flow of decision making is represented
by a Vertical hierarchical authority with a Center on the top in X-matrices and Self-government with subsidiarity in Y-matrices. Types of interaction in the order of decision making in X-matrices are General assembly system with the rule of unanimity and a Multi-party system with the rule of democratic majority for Y-matrix respectively. Access to governing positions can be carried out by Appointment as X-institution or Election as Y-institution. Finally, we can indicate different institutions for the on-going process of institutional development, namely feed-back mechanism. This takes place either by Appeals to higher levels of hierarchical authority for X-matrices or with Legal suits for Y-matrices

Table 3. Institutions of X- and Y-matrices in politics and their functions

<table>
<thead>
<tr>
<th>Functions of institutions</th>
<th>X-institutions (unitary political order)</th>
<th>Y-institutions (federative political order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Territorial administrative organization of the state</td>
<td>Administrative system (unitarity)</td>
<td>Federative structure (federation)</td>
</tr>
<tr>
<td>Governance system (decision making)</td>
<td>Vertical hierarchical authority with Center on the top</td>
<td>Self-government and subsidiarity</td>
</tr>
<tr>
<td>Type of interaction in the order of decision making</td>
<td>General assembly with the rule of unanimity</td>
<td>Multi-party system with the rule of democratic majority</td>
</tr>
<tr>
<td>Access to governing positions</td>
<td>Appointment</td>
<td>Election</td>
</tr>
<tr>
<td>Feed-back loops</td>
<td>Appeals to higher levels of hierarchical authority</td>
<td>Legal suits</td>
</tr>
</tbody>
</table>

The ideological institutions express social consensus on the main rules and norms of social actions and indicate what is deemed to be fair and just in mass opinion (Table 4).

Table 4. Institutions of X- and Y-matrices in ideology and their functions

<table>
<thead>
<tr>
<th>Functions of institutions</th>
<th>X-institutions (communitarian ideology)</th>
<th>Y-institutions (individualistic ideology)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core principle of social actions</td>
<td>Collectivism</td>
<td>Individualism</td>
</tr>
<tr>
<td>Normative understanding of social structure</td>
<td>Egalitarianism</td>
<td>Stratification</td>
</tr>
<tr>
<td>Prevailing social values</td>
<td>Order</td>
<td>Freedom</td>
</tr>
<tr>
<td>Labor attitudes</td>
<td>Well-being-oriented</td>
<td>Pecuniary-oriented</td>
</tr>
<tr>
<td>Principles of common thinking</td>
<td>Generalization-Integralism/Holism</td>
<td>Specialization-Atomization/Mereism</td>
</tr>
</tbody>
</table>
X-institutions of communitarian ideology are Collectivism as a core principle for social actions, Egalitarianism as normative understanding of social structure, An order as one of prevailing social values, Well-being oriented labor attitudes and Generalization/Integralism/Holism as principles of common thinking and ideas about the essence of society. Respectively, a complex of Y-institutions of individualistic ideology includes Individualism, Stratification, Freedom, Pecuniary-oriented labor attitudes and Specialization/Atomization/Mereism.

All economic, political and ideological X- and Y-institutions coexist in different combinations and are embodied in many institutional forms. Thus, though we are outlining the general features of X- and Y-matrix institutions, in real-life situations the extreme cases are never fully demonstrated this way. Normal functioning of X- and Y-matrices requires an appropriate institutional balance with all morphologically interconnected institutions.

Why do X- or Y-institutions and institutional form dominate in the institutional structures of societies? The material and technological environment is seen as a key historical determinant of whether either an X-matrix or a Y-matrix prevails, along with culture and social actions. The environment can be a communal indivisible system, wherein removal of some elements can lead to disintegration of the whole system or it can be non-communal with possibilities of functional technological dissociation. The institutional content of a nation developing within a communal environment is determined by the tasks of coordinating joint efforts towards effective use. Thus, X-matrices are formed under communal conditions. A non-communal environment is divisible into separate, disconnected elements; it is able to disperse and can exist as an aggregate of dissociated, independent technological objects. In this case, an individual or groups of people (e.g. families) can involve parts of the non-communal environment in their economy, maintain their effectiveness, and use the obtained results on their own, without cooperating with other members of the society. If this is the case, the main function of such formed social institutions is to assure an interaction between the atomized economic and social agents. Y-matrix institutions are thus shaped in a non-communal environment. To be more accurate, in a communal environment X-matrix institutions are dominant and Y-matrix institutions are complementary. In a non-communal environment the institutional situation is vice versa.

The ratio of governing and complementary institutions is defined by the changing conditions of social-economic development. On one extreme, there is a totality of predominant institutions without conscious implementation of complementary institutions. This tends to result in collapse (e.g. USSR’s breakdown in the ‘80s and ‘90s) or in a social and economic crisis (e.g. the USA’s recent ‘07-‘09 recession). The opposite extreme implies the attempt to replace historically dominant institutions with complementary ones. This move leads to revolutions through reconstruction of governing institutions into new forms (e.g. the French Revolution as a reaction to economic and political centralization and, alternatively, the Russian October Revolution as an outcome of an attempt at “building capitalism”) or unsustainable socio-economic development (e.g. some Latin American countries).

The main task of social and economic policy in each country is to support the optimal combination (proportional balance) of predominant and complementary institutions. For example, the economic policy has to find the best proportion between market and redistributive institutions as well as forms of their modernization (Kirdina,

---

15 The role of culture for economic development is investigated in work on civilization approach (see e.g. Steven Rosefielde (2002, 2005, 2008). Social and collective actions as a factor of institutional change are a subject for neo-institutional studies. In our research these factors are not investigated.
People and authorities can actively help to achieve this balance faster and more efficiently than just letting history take its course.

The comparative role of nations with prevailing X- or Y-matrix (Kirdina, 2012) is changing cyclically in the world (see Fig. 4).

Maddison Database was used to calculate GDP levels for nations with a prevailing X-matrix (China, India, Japan, Brazil and former USSR countries) and Y-matrix (Western Europe-12 including Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland and United Kingdom, and Western Offshoots including Australia, New Zealand, Canada and United States). A sample for analysis includes 34 nations (~75% of World GDP) data of which were affordable for the period of time 1820-2011.

We can see over 140 years a long wave with a switching GDP leader. From 1820 (and before) to 1870 more GDP was produced in countries with a prevailing X-matrix. Since 1868-70 the role of countries with Y-matrix is increasing, and after 1870 they produce more GDP. The maximum spread between shares of Y-matrix and X-matrix countries took place in 1950-65. But since 1970s the dominance of Y-matrix countries gradually decreases; since 2008 the share of X-matrix countries again prevails and keeps growing (we know forecast for BRICS-countries).

Coming back to the institutional matrices theory, it may be regarded as being more influenced by Marxian school and at the same time it develops the institutionalist’ approach of the Novosibirsk economic-sociological school in Russia. We know that some authors try to reconcile institutionalism and Marxism (O’Hara, 2000,) and others illuminate some fundamental differences of analysis and outlook between these doctrines (Duggar and Sherman, 2000; Hodgson, 2006). In case of IMT we can see common philosophical and methodological premises shared by it and Marxian school of economic thought and elaborated as well (Table 5).
### Table 5. Marxian School of Economic Thought and the Institutional matrices theory (IMT), or X- and Y-theory

<table>
<thead>
<tr>
<th>Common assumptions shared by Marx and IMT</th>
<th>Elaboration/updating of common assumptions</th>
<th>According to Marx</th>
<th>According to IMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society is considered as a social system of interacting economy, politics and ideology.</td>
<td>“Economic determinism” (primacy to the economic structure over politics and others in the development of human history)</td>
<td>Economy, politics and ideology are morphologically interconnected, they are of equal importance</td>
<td></td>
</tr>
<tr>
<td>Social system is studied as a set of structured relations. “In Marxism, the supreme analytical work is done by the structure” (Hodgson, 2006, p. 66). Structures, not individuals, are the main focus of analysis.</td>
<td>Key economic institutions and ideology are the subject of analysis.</td>
<td>Sets of economic, political and ideological institutions are the subject of analysis.</td>
<td></td>
</tr>
<tr>
<td>Two alternative types of social systems are marked - European society and the so called Asiatic mode of production (or Western and Eastern societies).</td>
<td>Structures of the European social and economic system were analyzed in details, not the Asiatic mode of production.</td>
<td>Two types of institutional matrices (X- or “Eastern&quot; and Y- or “Western&quot;) and their institutions are analyzed on equal footing.</td>
<td></td>
</tr>
<tr>
<td>The important role of technological change for social relations. The forms of conditions of production are the fundamental determinant of social structures which in turn breed attitudes, actions, and civilizations.</td>
<td>The prevailing stage of technology is key factor for given social order and the mode of production (the ‘hand-mill’ creates feudal, and the ‘steam-mill’, capitalist societies).</td>
<td>Two types of material and technological environment (communal and non-communal) are analyzed as key factors for prevailing institutional X- or Y-matrices.</td>
<td></td>
</tr>
<tr>
<td>The recognition of historical specificity and historical dialectic.</td>
<td>European history is presented as a process of the mode of production change.</td>
<td>History of societies with prevailing X-matrix (Russia, China, etc) and Y-matrix (European countries) is presented as a process of institutional modernization.</td>
<td></td>
</tr>
<tr>
<td>Two types of alternative institutional (economic) structures are considered, e.g. capitalistic type with private property and</td>
<td>Any kind of mixed economies, in which alternative institutions of property (and others), are combined, are</td>
<td>Institutions of the X- and Y-matrices co-exist. All societies and economies have a mixed institutional structure. To support an</td>
<td></td>
</tr>
</tbody>
</table>
socialistic type with common property (Marx) or societies with the prevailing of X- or Y-matrix (economic) institutions (the IMT).

impossible. It is a struggle between them, and only one type of institutions could be “a winner”.

appropriate proportion between dominant and complimentary institutions is the important task of social and economic policy.

The importance of disequilibrium, chaos and complexity of social systems and recognition of crises and social revolutions are acknowledged.

Revolutions change the mode of production and social type of society16.

Revolutions update the institutional structures but do not change the prevailing position of the dominant matrix.

Like Marx's economic doctrine IMT is built as a systemic social theory, which means recognizing the role of technological change and environment for economic development, including the building of ‘human-made’ institutions. Sharing most of presumptions of Marx's economic doctrine, accepting his analytical schemes, IMT updates and elaborates them in an attempt to better understand our dynamic and complex global world. It helps by using IMT in different spheres, including post-socialist transition in Russia and East-European countries analysis.

5. Post-socialist transition from IMT point of view

Even in 1994 in his book “Whither Socialism?” Stiglitz wrote: “being economists, we are called upon to analyze various proposed measures to change economic policy and institutions. Now we have more sophisticated analysis tools, and so we are better prepared, in respect of any proposed change to ask: "What are consequences?" Using the terminology of evolution, we can ask: “What is the probability of surviving these changes?” We are even able to do social engineering, and ask whether we can establish such institutions or develop reforms…” (Stiglitz, 1994, p. 277). The final section of the paper is largely devoted to proposing some answers to such questions. We try to explain different consequences of post-socialist transformation in East-Europe and Russia (and China as well) and to understand the probability of surviving these changes from the institutional matrices theory's point of view17.

The post-socialist transition was a “real life experiment” to check either is it true that “an institutional system can be partially or completely destructed and then reconstructed”, as Bagrat Yerznkyan wrote (Yerznkyan, 2012, p.39), or not?

From IMT perspective, transformation processes in the countries of Eastern Europe and Russia were both similar, and different. On the one hand, these states undergo the same process of an intensive introduction of institutional forms specific to the Y- matrix

---

16 In fairness, it should be noted that Marx, as Schumpeter wrote, “was much to strongly imbued with a sense of the inherent logic of things social to believe that revolution can replace any part of the work of evolution...it only comes in order to write the conclusion under a complete set of premises” (Schumpeter, 1951, p. 72).

17 It is a big literature on problems of post-socialist transition, see e.g. Arrow K. (2000); Aslund, Boone, Johnson (1996); Berg , Sachs (1992); Blanchard (1997); Blanchard, Dornbush, Krugman, Layard, Summers (1991); Coricelli (1998); Gavrilenkoy, Kuboniwa (1997); Kolodko (2005); Lavigne (1995); North (1997, 2000); Popov (2000); Sachs (1989); Welfens (1999) and others. Most of them stress the difference between the process of institutional changes in Europe and “an inexplicable anomaly” in Russia.
institutions, i.e. market economy, federative political system and individual freedom values as the main public idea. It was an attempt to go from “socialist experiment of institutional monism” to neo-liberal institutional monism (Draskovic, Draskovic, 2012, p. 121). Moreover, the states have the same goals – those of achievement higher indicators of socio-economic development of the nations.

On the other hand, there was a fundamental difference. In the course of their transformation process, East European countries restore the dominant position of these institutions, which corresponds to their Y-type institutional matrix traditionally inherent for them. They return to their previous path of historic development, which had been deformed by the postwar Soviet influence. As for Russia, it – irrespective of its political leaders’ preferences – aims, on the one hand, at the renewal, modernization and restitution of the dominant position of the X-institutions historically necessary for the redistribution economy, unitary-centralized state and communitarian ideas; and, on the other hand, it is actively introducing market, federative and subsidiary institutional forms (such as private property, competition, elections, court system etc.) necessary for the institutional balance, and adopting them to the structure of our traditionally dominant X-matrix.

We agree that “institutional synergism (pluralism) is the only real, possible, and proven condition and priority for economic development, based on real (rather than rhetorical) economic freedoms, protected property rights and contracts, entrepreneurship, and healthy market competition” (Draskovic, Draskovic, 2012, p. 132). But proportions of market and redistributive institutions, federative and centralized mechanisms etc. depend not only on features and specific development problems and priorities in different countries but the type of prevailing historically intrinsic institutional matrix as well.

The aim of Russia’s policy should be therefore to look the proportion between X- and Y-matrices, developing a successful combination, favouring X-matrix institutions that will help it move forward confidently as a sovereign nation, moving further beyond the shadow of its Soviet past in the 21st century. It is an actual trend for the Chinese society too. As for Eastern countries, the favour of Y-institutions should be more successful combination.

This is why paths and results, and future of transformation processes are so different in East European countries, on the one hand, and in Russia and China, on the other hand. However, we hope that economic and political contacts, openness of our societies resulting from globalization, as well as the will of our nations and efforts of our academics will contribute to successful change of the transforming states within the evolution specific to them, determined by the nature of their institutional matrices.

6. Conclusion.

Marxian economics, particularly in academia, is distinguished from Marxism as a political ideology as well as the normative aspects of Marxist thought, with the view that Marx’s original approach to understanding economics and economic development is intellectually independent from Marx’s own advocacy of revolutionary socialism. Marxian economics is seen as a viable analytic framework, and an alternative to neoclassical economics. Marxian economists do not lean entirely upon the works of Marx and other widely known Marxists; they draw from a range of Marxist and non-Marxist sources (Prychitko, 2013). Modern concepts - IMT as example – based on a wide human knowledge has been "discovered' up to now.

In radical political economy the term "radical" is often interpreted as a theoretical and practical rejection of capitalism (Stefanović, Mitrović, 2011, p. 355), while “political economy” instead infers a return to the classical tradition and Marx (Jakšić, Lazar, 2002, p. 2011, p. 355).
We do not completely reject “capitalistic economic doctrines” but openly recognize the failure of these doctrines to understand “everything and everywhere” in economic life. Institutional matrices theory allows us to distinguish two types of institutional complexes (so called X- and Y-matrices) that interact complementarily within each country. IMT is closely related to several previous ideas across the world about two pathways of development: a European one and an “Asiatic mode of production without private ownership of land” (expressed by Karl Marx, 1853, Germany), “exchange economies” and “centrally planned economies” (expressed by Walter Eucken, 1950/1939, Germany), market (exchange) and redistribution in the economy (expressed by Karl Polanyi in 1953, Canada), and market self-regulating category A economies and culture-regulating category B economies (expressed by Steven Rosefielde in 2002, the USA).

The triumph of Marxism in backward Russia is commonly regarded “as a historical anomaly” (Resis, p. 219, 1970). IMT, or X- and Y-theory, however, helps us to answer a question ‘Why did Marxism take deep root in Russia and not in its home country?’ It is paradoxical but economic theses of Manifesto of the Communist Party – the most popular work by Karl Marx and Friedrich Engels - were more appropriate for countries with prevailing X-matrix like Russia not Y-matrix like Germany. I mean the following ideas of Manifesto: abolition of private property; centralisation of credit in the hands of the state, by means of a national bank with state capital and an exclusive monopoly; centralisation of the means of communication and transport in the hands of the state; extension of factories and instruments of production owned by the state; the development in accordance with a common plan etc.

Long-term analyses of the comparative role of countries with X- and Y-governing institutional matrices suggest that the configuration of the world’s major global economic players is changing. Since 2008 the global GDP share of X-matrix countries (Russia, China, Brazil, India, etc.) has prevailed over Y-matrix countries (the USA, Europe, etc.) and the gap continues to grow. This developmental process is also accompanied by the important growth of X-institutions in Y-matrix countries: after the 2008-09 global financial crisis, the role of government regulation, centralized management and communitarian ideology of "common survival" has become increasingly popular. The notion that ‘we’re in this together’ (WITT) rather than ‘you’re on your own’ (YOYO) signals X-matrix tendencies even in strongly Y-matrix oriented nations.

The start of a new “institutional long wave” requires a new intellectual platform to support a global dialogue among nations. This dialogue can be based on institutional complementarity and proportionality instead of on general acceptance of “western” superiority and neo-liberal capitalism as a universal ideal or inevitable “end of history.” We hope that IMT will be helpful for interpreting and developing this important task.

References


