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Institutional Matrices and Institutional Changes

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The title of our symposium contains a puzzle, a paradox we must resolve. It is a comparison of seemingly incompatible things - *transformation and evolution*. Notably, this paradox remains unresolved also in Schumpeter's theoretical arguments, whose works we will discuss.

So, on the one hand, the subject of our discussion is **evolutionary theory**. However, evolutionary theory, although it assumes economic changes and novelties, potential uncertainty of development, etc., yet implies continuing evolution of the dominant patterns of relations, within which the participants of the economy are acting. Schumpeter wrote about it: "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. The main features, contours are entirely the same, and even the way in which national economic accounts are kept - with or without money - makes no difference. We have already noticed that money circulation in such an economy is no more than an auxiliary technical tool that changes almost nothing. No matter how different is modern economy from primitive, mostly the same occurs in both" (Schumpeter, 1926, s.74)¹. This "the same in both" is just those basic, genetically given and self-recreating structures (in different "jackets" and cultural forms) that historically predetermine the nature of market. Therefore, evolutionary theories are based on assumptions that there are "hereditary" mechanisms, certain structures which only through their own functioning and without outside intervention are changing the preceding state of affairs to the next one. Evolution of a social-economic system is, therefore, *recreation of structure*, but in constantly modernized forms. Evolution connotes that historical types, patterns are regular and incorporated in the internal mechanisms like genetic information is incorporated in biological organisms.

It is from this evolutionary view that Schumpeter explores the development of market economies in his Theory of Economic Development. He writes: "Thus the economic system will not change capriciously on its own initiative but will be at all times connected with the preceding state of affairs. This may be called Wieser's principle of continuity" (Schumpeter, 1961, p.9.). According to this, "any next historical state can be properly understood from the preceding one" (Ibid, p. 58). Moreover, in the work of 1912 Schumpeter stresses that his reasoning about the role of capital, like all his conception, is pertinent only to an economic system based on market transactions of sale and purchase. He writes: "while those forms of economy in which this happens through any kind of power of command or through agreement of all concerned represent non-capitalist production" (Ibid, p. 232), and to such economies his arguments are inapplicable.

On the other hand, we are offered to examine **economic transformation**. But transformation implies *change of structure*, emergence of different structures, types and attitudes; transformation generates not an evolutionary transition but a

qualitatively different state of the system. The analysis of transformation requires, therefore, a paradigm other than evolution.

This alternation of paradigms can be found in Schumpeter's work of 1942 "Capitalism, Socialism and Democracy". Schumpeter argues "that socialist form of society will inevitably emerge from an equally inevitable decomposition of capitalist society" (Schumpeter, 1950, p. xiii). In other words, after Marx (but not in the way Marx envisaged it) he asserts a possibility of qualitative reorganization of society from one type into another, namely, from society with private ownership² into society with dominance of public ownership.³

In our view, the comparison of these two Schumpeter's works displays a discrepancy between the two visions of development of market economic systems - evolutionary and transformational, i.e. non-evolutionary transition into a qualitatively different state. No theoretical schema that would reconcile logically these two visions was left to us by Schumpeter.

Is it possible to deal with this discrepancy in a correct way? What in economy changes evolutionarily and what is transformed? What structures persist and where is the room for institutional changes? We will make an attempt to find the answer in the theory of institutional matrices. This theory is now coming to the forefront in the Russian professional literature (Terin, 2001; Kusmin and Eidelman, 2001; Menshikova and Pavenkova, 2001), the monograph devoted to it was published in a second edition (Kirdina, 2001), the concept of "institutional matrix" with exposition of this theory has entered the "Sociological Encyclopedia" (Matrix institutional in sociology, 2003). In order to give a well-founded answer to the above questions, we will use the following main propositions of this theory.

1. What are institutional matrices?

Theory of institutional matrices follows Russian tradition of economic thinking that stands apart from western theories. Its characteristic features are:

- firstly, a so called **objectivistic paradigm** which asserts natural, objectively existing, "God given" character of economic processes, their "inconstructibility" by man;

- secondly, **social thinking**, which is a wide social context and sociological vision of economic processes that goes beyond the bounds of the economics proper;

- thirdly, **holistic approach** focused on collective actions and general rules of functioning of community, which is in contrast with "methodological individualism" typical of western economic thinking with its preferred orientation to the behavior of *homo economicus*;

- fourthly, detection of Russia-specific economic laws and institutions allowing one to see the presence of "**another economy**" to which western standards are inappropriate (Kirdina, 2003).

Theory of institutional matrices is based on two key postulates that play the role of axioms. The first postulate is a view of community as an integral, indivisible entity, as a single organism. Social sciences decompose it only in abstraction, placing it into a "system of axes" - economic, political and cultural-ideological, and define, accordingly, their own specific object in the analysis of this phenomenon (Fig.1). The approach to society as a system makes it possible to single out economy, politics and ideology as its subsystems.

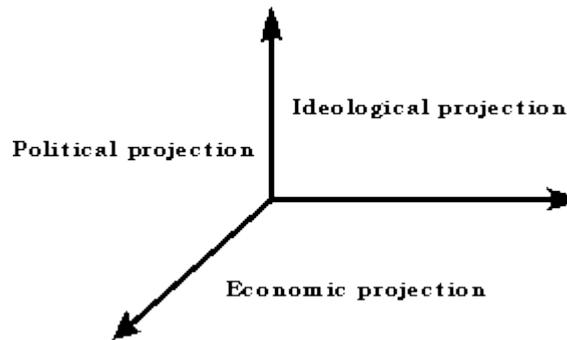


Fig. 1. Projections of "decomposition" of society in the system of economic, political and ideological axes

This diagram shows that any social action or social process which, in essence, is single and integral, can be analyzed in the above mentioned projections according to various research tasks, such as:

- **economic**, that is, relating to receipt of resources for reproduction of social agents,
- **political**, that is organized in a certain way, ordered and managed, oriented to achievement of a specific goal,
- **ideological**, that is, realizing a certain idea, some norms and values meaningful for society, which distinguish human social activity from animals.

The first postulate is that economic processes cannot be explained only on the basis of data which characterize economy in its substantive (K. Polanyi's term) meaning. Explanation of economic processes requires also to refer - and this is often the case in most economic theories - to political (organizational) and value (motivational) aspects. In modern international institutionalism and evolutionary theories the presence of this postulate, historically inherent in Russian economic thinking, is obvious.

The second postulate in the theory of institutional matrices that distinguishes its axioms from other conceptual models is assumption about the basic institutions. *Basic institutions* are very deeply rooted, historically stationary and perennially recreated social forms, historical invariants that allow the society to survive and advance in the course of historical evolution without losing its self-sufficiency and integrity and that are independent of will and desire of concrete social actors. The category of basic institutions, as distinct from a broader category of "institution", abstracts from the entire domain of social relations only those, which are historically stationary and internally unchangeable. Their function is to regulate social subsystems and maintain the integrity of societies of different types.

Veblen suggests that the institution possesses by its nature the properties of "continuity" (heredity) since it is a self-supporting, self-recreating social phenomenon. While in biology a structure that transmits hereditary information is gene, in social milieu it is the basic institution. The effect of basic institutions is, in our view, just this "chreodos effect".

Therefore, this conception belongs to modern institutionalism based on historical research and using a *path dependence* approach, according to which the path gone by a social (economic) system depends at any instant on its state at the preceding moment. As is known, under this approach it is postulated that society and economy recreate the institutions of the past, slowly introducing changes. Of all the complex of institutions forming the system, the most changeable are those belonging to the superficial layer, while the deep, substantial institutions (basic in our treatment) exhibit the highest stability. Consistent adherence to the path-dependence approach has led the author to the conception of mother *institutional*

matrices determining "the passage" of possible future states of the society⁴. The idea of *institutional matrix* - the main ideal subject in the author's theory - originates from the works of Karl Polanyi and, mostly, Douglass North, who were the first to use this term. These authors were also the first to assume that the system of institutions of any concrete society forms a distinctive "institutional matrix" that must be taken into account in analysis of expected social changes (North, 1997, pp.147-148; Polanyi, 1997, p. xxxii).

In our case, the institutional matrices (from Latin 'matrix' which means mother, parent, primary model) are understood as systems of basic economic, political and ideological institutions that are in one-to-one relationship to each other. History shows us two types of such matrices called X- and Y-matrices formed of qualitatively different institutions (Fig. 2).

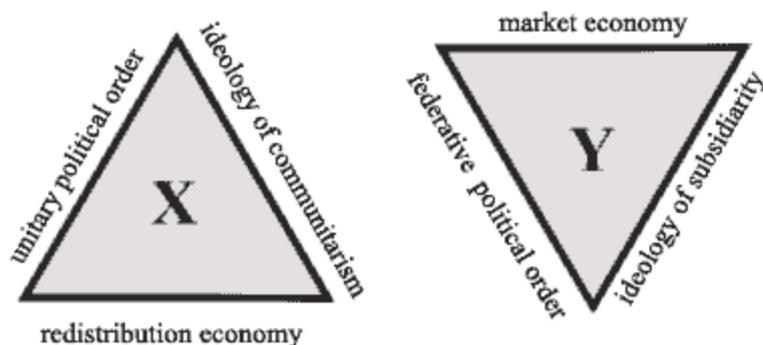


Fig. 2. Difference between X- and Y-matrices

In Russia, like in South Eastern Asia, Latin America, China, traditionally basic X-matrix institutions dominate, there are institutions of redistribution economy⁵, *unitary political order* (Kirdina, 1999), and *institutions of ideology of communitarism*, the main idea of which is dominance of collective, common values over individual values, the priority of We over I.

In Europe and the US, Y-matrix institutions, that is, *market economy*, *federative political order* and institutions of ideology of subsidiarity⁶, steadily dominate. They reflect the superior status of individual self-interest values over community values of a higher level, which are, accordingly, subsidiary, inferior to personality, that is I prevails over We.

Since the start of human history, X- and Y-matrices have co-existed. Thus, while in ancient Egypt X-matrices dominated, in Mesopotamia, another ancient state, already at that time Y-matrices dominated in primitive institutional forms.

A factor which determines the type of institutional matrix is material and technological environment in the area where these states appeared. If the environment is *communal*, then X-matrix institutions are formed; if *non-communal*, Y-matrix institutions arise. Communal environment means that it can be drawn into economic turnover and efficiently exploited only collectively, by large groups of people, who are centrally organized and cannot be disconnected without damage to its functioning. Historical examples can be systems of river communications in Ancient Rus, irrigation structures in Egypt, rice growing technology in China and other countries of South Eastern Asia, contemporary housing economy in Russia, Russian fuel and energy complex, system of rail roads, etc. In contrast to this, non-communal environment, to draw it on stream, does not require collective efforts of large groups of people; it is decomposable and may be efficiently used by private agents who exchange the products of their labor (Bessonova, Kirdina, O'Sullivan, 1996, p.15).

Dominance of a particular type of matrix means that alternative institutions ('from the opposite matrix') are *complementary*, they complete the institutional

structure and make it "whole". Basic and complementary institutions appear in diverse *institutional forms* (norms, laws, types of organization, rules, etc.). Total domination of basic institutions, without necessary contribution of complementary institutions, leads to crisis and stagnation. For this reason, western nations, for example, introduce public regulation to fill *market failures*, centralize power not to let separatism of federal units, invent consolidating ideas of a communitarian type designed to overcome citizens' and countries' individualism (up to creation of transnational units like the European Union with its own Constitution). In countries with X-matrix, in their turn, let us take Russia or Japan, a major concern is how to implant market institutions into the tissue of redistribution relations, to decentralize power and to implement administrative reforms and strengthen the role of local governments. The ideology of such societies has a perpetual task to strengthen individualistic rationality in their people, to encourage self-interest motivation and citizen's responsibility and to overcome their infantilism and tendency to paternalism.

If, however, attempts are made not to complete but to replace basic institutions with complementary ones, they may impend another risk - the risk of revolution. In theory of institutional matrices, revolutions, including the notorious Russian revolution, are viewed as a moment in evolution of a certain type of society. In the course of revolution the society automatically returns to its basic institutional structure, to its *path*, from which it tried to depart. This proposition develops D. North's idea of "lock-in effect" (North, 1997, p. 23) of institutional matrices due to which their structure remains intact.

Therefore, deficit of complementary institutions (their containment) as well as attempts to entirely replace basic institutions with them are equally ruinous, of which history gives numerous examples. For this reason, historical evolution of nations is characterized by a very difficult narrow way between Scylla of crisis and Charybdis of revolutions, and a search of the optimal proportion for basic and complementary institutions, of a balance between them to make it possible for basic institutions to preserve their framework intact leaving to complementary institutions all opportunities that are necessary for their functioning.

Identification of two types of institutional matrices corresponds to the general principle of symmetry existing in the nature and in social life where the world is divided into men and women, light and dark, heat and cold, etc. The Holy Bible says: "God's creation works in pairs. All things come in pairs, one opposite the other, and he has made nothing incomplete" (Sirach). This principle is fixed in western philosophy in the concept of dual oppositions and in eastern, through the idea of In-Yan, etc.

The same takes place in social life. Societies with dominance of different matrices co-exist and complement each other, having "pluses" and "minuses" of their own. Thus, nations with X-matrix are characterized by conservatism, but at the same time by accumulation of cultural values, preservation of useful traditions. Nations with Y-matrix are known for high aggressiveness, extra individualism, but at the same time for innovativeness, aptness to quick changes, including technological changes. Redistribution economy of X-matrix nations is known for low motivation of producer, but at the same time for cheapness of goods and simplicity of technological solutions. The market economy of Y-matrix countries, on the other hand, is noted for high motivation of producer but also for historically persistent expensiveness of goods and services.

Nations with different type of matrices are constantly exchanging required institutional patterns that help them develop their cultural, economic and institutional setting⁷. For example, the West and the USA are more active in importing cultural values, planning principles, experience in organization of centralized political structure. In their turn, Russia and South Eastern Asia borrow

technological solutions achieved in western countries, their market mechanisms, and principle of federalism. The balance of this exchange and the ability to demonstrate the advantages that arise from the nature of the institutional matrix create a basis for harmonious peace on the planet with so diverse living circumstances.

2. Space for institutional changes, in particular, in Russia

At this point we can articulate answers to the questions stated at the beginning. The disconnection of concepts of (1) institutional matrices that determine the societal nature of society, (2) basic institutions dominant in them, and (3) institutional forms in which basic (and complementary) institutions appear allow us to outline evolutionary processes and limits to institutional changes.

Institutional matrices are deeply rooted structures that set the direction of evolution. We cannot cite a case in which a dominant institutional matrix was displaced. Basic institutions, including economic, form an invariable core that persists in the course of historical development of self-sufficient states.⁸

From this it follows that economic transformation is possible only unless it infringes the institutional core, the dominant position of basic economic institutions. Introduction of new institutional forms and change of "rules of game" in an economy can proceed only to the point within the tolerance of the given type of institutional matrix; it is like law of gravitation that cannot be overcome until we stay on the earth. Attempts to go beyond these limits lead, as was mentioned, to revolutions (from Latin *revolvere* - return) that tortuously and with bloodshed return societies to their "evolutionary passage". Then, what is the space of freedom for evolution of economic systems and for institutional changes? Two areas are notable.

The first is *modernization of those forms in which the basic institutions are embodied*. The persistence of market exchange does not cancel the development and civilization of forms in which it proceeds - from primitive bargains to contemporary futures at the stock exchange, from murder of rivals to modern marketing and sophisticated advertising. Redistribution economies, in their turn, develop forms of centralized management, which is intrinsic in them. In Russian history, for example, we can see the development of sector-specific system of management from high administration ('boyare') in feudal Russia to offices ('prikazy) of the Moscow State, Collegia of Peter I and ministries of the Soviet period.

The second area of institutional changes, often interpreted as transformation, *is development of alternative forms*, of addition of complementary institutions typical of the matrix of that opposite type. Thus, Karl Polanyi titled his work where he described the crisis of pure model of self-regulated market and a need for development of alternative institutions as "Great Transformation". The process of changes in contemporary Russia and countries of Eastern Europe is conventionally named economic transformation, since it is characterized by active introduction of market instruments into non-market economies. However, if we want to be literally precise, none of them has experienced true transformation of its economic system. Western countries continue to be predominantly market economies and do not transform into another economic system, while the countries of Eastern Europe always had market tradition and now have only returned to the path of their historical evolution that was temporarily interrupted by the Soviet influence. What regards Russia, we will give a more detailed conclusion.

We suggest our diagnosis and projections on the basis of the above propositions. In the course of reformation of the post-Soviet Russia two stages are identified. The first stage (from the mid-1980s to the end of the 1990s) is

characterized by intense, sometimes unduly aggressive introduction of alternative institutions and institutional forms characteristic of states with Y-matrix into the practice of the Russian society. It is sweeping privatization, "parade of sovereignties", etc. The end of this stage was marked by obvious display of communality of the environment, which showed that the pursued dominance of market institutions and federative principles of polity dramatically failed. Their further enforcement would lead to unjustified rise of social and economic costs.

The second stage (from 1998-1999), was characterized by a more definite positioning of complementary institutions in the institutional structure of the society and by focus on perfection and modernization of forms innate in the X-matrix of the Russian society.

Then, what is our projection? The dominance of basic institutions innate in Russian society is expected to be reinstated, but they will be substantially renewed and modernized. In the economy, for example, the obsolete centralized planning is replaced by a more flexible budgetary regulation that is better tailored to the interests of the participating economic agents. In the political sphere, reinforcement of power vertical goes along with perfection of legal framework and division of powers and responsibilities between federal, regional and municipal governments. In the sphere of ideology, values of national unity and social consensus are again respected, but they do not cancel the already widely recognized values of human rights and personal freedoms.

At the same time, the search of niches for complementary institutions will continue, and this will allow them to make their useful contribution without damage to common interests and within limits set by the institutional matrix of the Russian society. In the economic field, it is reinforcement of market elements such as tenders, creation of segments for private and individual enterprises, clear legal determination of property rights. Political activities are complemented by activity of parties and by elections that are to compensate destructive consequences of the former total rule of central power. In the sphere of ideology, construction of a subsidiary state, i.e. the state taking care of the welfare of its citizens, is underway. New institutions will distinguish the Russian society from what it was in the Soviet period when all these complementary institutions had no legal status or were existed in shadowy abominable forms.

Therefore, institutional matrices set two types of paths in evolutionary changes, including those in the economic subsystem of society. They also determine ultimate points to which possible transformations, modification of economic forms and rules may go without disturbance of the balance under which basic institutions maintain their dominant position.

I should like to conclude with a quotation from Joseph Schumpeter, to whom our symposium is devoted. Speaking about challenges that face different types of society (in his days they were called private entrepreneurial societies and societies of democracy and socialism), he said very wisely: "Both of them stand to gain if they see more clearly than they usually do the nature of those social situation in which it is their fate to act" (Schumpeter, 1950, p. xi).

1 "Soweit es sich aber um eine Verkehrswirtschaft handelt, hat es gar keine Bedeutung für die Grundzüge der Theorie, ob diese Verkehrswirtschaft in dem allerprimitivsten Tausche zwischen Jägern und Fischern oder ob sie in einem komplizierten Organismus, wie wir ihn heute beobachten können, besteht. Die Grundzüge, die Konturen der Sache sind ganz dieselben, nicht einmal das ändert etwas daran, ob die vollkswirtschaftliche Abrechnung geldwirtschaftlich oder nicht geldwirtschaftlich vor sich geht. Denn wir sahen ja, dass der Geldverkehr in einer solchen Wirtschaft lediglich ein technisches Hilfsmittel ist, welches an dem Wesen der Sache nichts ändert. Die moderne Wirtschaft mag noch so sehr graduell von

der pp primitiven verschieden sein, es geschieht doch in beiden soweit wesentlich dasselbe" . This paragraph is omitted from all English editions. >>

2 It is in this way that Schumpeter defines capitalism. In his work Postwar Economic Problems, p.113, he wrote: "Capitalism is characterized by three features: private ownership of physical resources of production, private profits and private responsibility for losses and creation of payment funds - banknotes and deposits - private banks". >>

3 See his definition of socialism: "By socialist society we shall designate an institutional pattern in which the control over means of production and over production itself is vested with a central authority - or, as we may say, in which as a matter of principle, the economic affairs of society belong to the public and not to private sphere" (Schumpeter, 1950, p. 167). >>

4 First publication: Kirdina "On institutional matrix of Russia, in Evolutionary Economy and "mainstream", 2000. >>

5 According to Karl Polanyi, redistribution economy is characterized not by domination of exchanges as is the case of market economies, but by center intermediation prevailing in movement of goods and services as well as rights to their production and use. (Polanyi, 1977, pp.40-41). >>

6 The term "subsidiarity" was initiated by the Pope Pius XI. It means absolute priority of individual over all public structures to which he belongs (Oxford English Dictionary, 1989, p. 59). >>

7 History gives also cases of enforced imposition of alternative institutional forms. Thus, in the second half of the XX century the East European countries were enforced to take the Soviet Union's X-matrix alien to them. The USA gives a reverse example: it enforces its Y-matrix rules on X-matrix Latin American countries. >>

8 The fact of invariable basics of economic systems was not once indicated by different researchers (Eucken, 1947; Polanyi, 1977; Bessonova, 1999). >>

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