

**A shift in the prevailing institutional models of the global order:  
is a new cycle starting?<sup>1</sup>**

This paper<sup>2</sup> discusses some theoretical-methodological bases for comparative institutional analysis. First, it shows the specific approach of the Marxian school to analyzing social and economic institutions. Second, it discusses the most general features of the system paradigm in economic theory (Kornai, 1998 [2002]). Third, it presents institutional matrices theory, or IMT (Курдина, 2001; Kirdina, 2001, 2010, etc.), which develops a Marxian approach together with systemic ideas. This section describes two basic institutional models, so-called X- and Y-institutional matrices. Fourth, it demonstrates that the economic dominance of Y-matrix countries (like the USA and European countries) since the 1970s has gradually decreased and that since 2008 the global GDP share of X-matrix countries (like Russia and China, e.g.) has prevailed and continues to grow.

Keywords: institutions, economic systems, Marxian approach, institutional matrices

JEL codes: B24, B25, P20, P51

**1. Marxian school and the analysis of institutions**

We believe that the potential of the Marxian project is still undervalued by institutional theorists. In most debates between institutionalists about Marx's legacy only its historical significance (Hodgson, 2006; Осадчая, 2005) or the role of Marxism as a criticism of capitalism (e.g. the works of URPE economists) is recognized. Here we are also interested in creatively developing Marxian thought to help in understanding societies and peoples today.

What are the specifics of the Marxian approach to analyzing institutions? First of all, Marx emphasized the important role of the material environment in building economic institutions. The structure of institutions (K. Marx considered not only the economic sphere of institutional functioning, but also politics and ideology) *is materially determined* by the development level of productive forces. Institutions are the result of social (collective) practices and depend on the manner in which humans produce the means to life.

Another peculiarity of the Marxian approach resulting from the first one is the acceptance of the fact that a particular character and development level of productive forces shapes the changes in economic systems. Marx created the basis for analyzing a «multiplicity» of economies in their commensurate notions and he considered a capitalistic economy as just one possible type. Economies differ from each other first of all by differences in their ownership system. For Marx, the *ownership system is the most important institution* that defines the specificity of the whole economic, political and social structure.

Third, taking into consideration *the historicity of institutions*, Marx wrote about this phenomenon for the first time in his review of Western European economic development in XV-XIX centuries, which is also a peculiarity of Marxian analysis. Scholars in the Marxian

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school underline the historically changing character of institutions, their «non-uniformity» which differs from representatives of the Neoclassical and Austrian schools of economics for whom exchange relations (that of the market economy) have a universal and historically “eternal” character. Because of their criticism of modern society (e.g. *O’Hara, 2000*) institutionalists of the Marxian school are often called «radical institutionalists».

And lastly, Marx considered the emergence of the social system and institutions *to be the result of social (collective) activity* over the course of a long-term iterative process. Marxian dialectics highlighted the interdependence between public conscience, social practices and the conditions in which people live (Тесля А., Тесля Е., 2007). So both conscious human actions and the material “surrounding” factors are together reflected in the results of social activity.

In recent times, institutions in so-called “countries in transition” and with various historical and cultural features have started to be re-examined by the Marxian school. The shifting in analytical focus away from “traditional capitalist” countries to these “other” countries is related to the fact that the developmental processes in these countries in transition can hardly be described using the terms of “American institutionalism”.

In economic research in Russia, the application of Marxian ideas goes in two principal directions. First, Marxian ideas are used to criticize modern capitalism and to show its unacceptability for Russia (Buzgalin, Kolganov, 2003). Secondly, new concepts are being constructed using Marxian methods of analysis and substantive provisions are being developed on the basis of achievements in modern economic thought combined with the system paradigm. Such an attempt named institutional matrices theory (IMT) will be presented below in section 3.

## **2. The system paradigm in economic research**

Here we discuss a heuristic perspective of the system paradigm. The systemic approach deals not just with the individual (mereological) details of an economy but with the system as a whole, and not just with the economy but also with the political, ideological and social dimensions. It pays special heed to the interactions between these spheres. As Janos Kornai has mentioned (*Kornai, 1998 [2002]*), the Marxian approach constitutes a vivid example of a systems paradigm in the economic thought of XIX century.

The most general features of the system paradigm that appear in economic research are described in the well-known study by Kornai (1998 [2002]). They are summarized as follows:

- 1) The social system is considered as a whole. Interrelations between the whole and its parts are the primary subject of analysis;
- 2) Research has an integral character and can’t be assigned to any one specific field of science (economics, sociology, political science). Special attention is paid to the interaction of different areas of society functioning;
- 3) Research focuses on the institutions that define the framework and flows of specific processes. Institutions are understood in a broad sense as structures formed historically and developed “evolutionary<sup>3</sup>”;
- 4) There is a close connection in understanding the current social organization alongside of the historical process in which it appeared;
- 5) Primary attention is paid to major changes and deep transformations, rather than to small and constant changes;

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<sup>3</sup> Janos Kornai outlined the similarity of the system paradigm and neo-institutional theory in that respect, while pointing out their differences in other areas (Kornai, 1998 [2002], p. 10).

6) System “dysfunctions” are inherently built into any system, which may be compensated for but not eliminated since their self-reproducibility is deeply rooted in the system itself;

7) Comparison is a typical method within the system paradigm and is conducted mostly on the qualitative rather than the quantitative level.

Kornai presented a list of authors, who, from his point of view, implemented the system paradigm in economic studies. The list includes Karl Marx, Joseph A. Schumpeter, Ludwig von Mises and Friedrich von Hayek, as well as Walter Eucken and Karl Polanyi. Among contemporary scholars following this trend Mr. Kornai also included himself.

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

The significant formation of the system paradigm in the 20<sup>th</sup> century shows the need for producing *systemic theories* that have the status of scientific ontology (i.e. paradigms, with “solid cores” for 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” (1951, p. 56). Empirical generalizations in economics become more and more fragmentary. Likewise, the growing number of particular theories did not allow us 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, which can be widely accepted by the public and by scholars. This leaves the prospects of building on the system paradigm in economic research wide open.

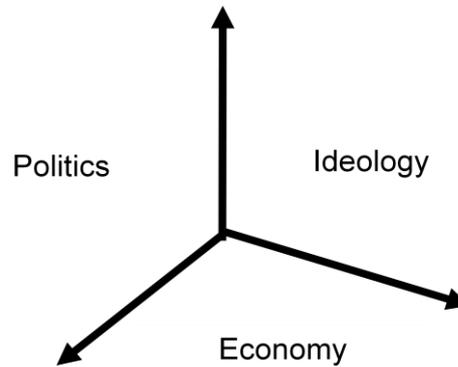
The system paradigm includes evolutionary elements<sup>4</sup>, but is actually wider than the evolutionary paradigm. While the evolutionary paradigm focuses mainly on the behavior of economic agents (e.g. individual selection, group selection or multilevel selection), the system paradigm focuses on features and dynamics of the economic system in the context of society as a whole. Recognizing the limits of the evolutionary paradigm and looking to go further with a systemic approach based on an institutional framework, the next step is to present IMT as a potential new way forward.

### **3. Institutional Matrices Theory (IMT), or X- and Y-theory**

Based on the above-mentioned ideas from the Marxian approach and the system paradigm, we now elaborate on 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, sides or components of an indivisible whole.

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<sup>4</sup> Particularly it explains the fact that in some works Friedrich von Hayek and Ludwig von Mises (referred by J. 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).



**Fig. 1. The main projections of society.**

Thus, the inherent structure of any social system includes the following spheres:

- economic sphere with interrelations that involve resources used for the production and reproduction of work and business-related activities;
- political sphere with interrelations for regular and organized public and civil society actions that aim to achieve defined local, regional or national objectives; and
- ideological sphere with interrelations that embody important social and cultural ideas and values of a nation's people.

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 develops 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 also at the same time 'human-made,' which involves subjective and teleological features. On the one hand, institutions manifest self-organizational principles in a society as a co-extensive political-economic-ideological system. On the other hand, institutions are the result of purposeful human reflection with regard to relevant laws and rules; they emerge, extend and are shaped as human-made entities.

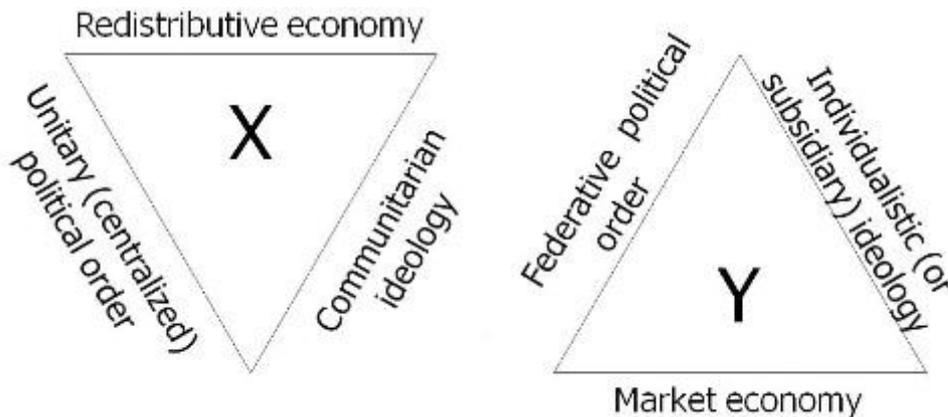
As Thorstein Veblen wrote, "Social institutions are not only the result of selection and adaptation processes, shaping the prevailing and dominant types of relationships and spiritual position, at the same time they are special modes of the existence of a society, forming a special system of social relations and, hence, in turn, are an effective selective factor" (Веблен, 1984 [1899], p. 200).

Aggregations of interrelated basic economic, political and ideological institutions are defined by IMT as *institutional matrices*. Historical observations and empirical research as well as mathematical modelling and a broad philosophical approach constitute the 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 according to the set of basic institutions forming them (see Fig. 2).

The X-matrix is characterized by the following basic institutions:

- in the economic sphere: *institutions of a redistributive economy* (a term introduced by Karl Polanyi (1977). Redistribution-oriented economies are characterized by a situation where the center (at the top) regulates the movement of goods and services, as well as the rights to their production, reproduction and use;
- in the political sphere: *institutions of a unitary (centralized) political order*;

- in the ideological sphere: *institutions of communitarian ideology*, the essence of which is expressed by the idea of collective, shared, public values and rights governing over individual, sovereign, private values and rights, i.e. the priority of We over I.



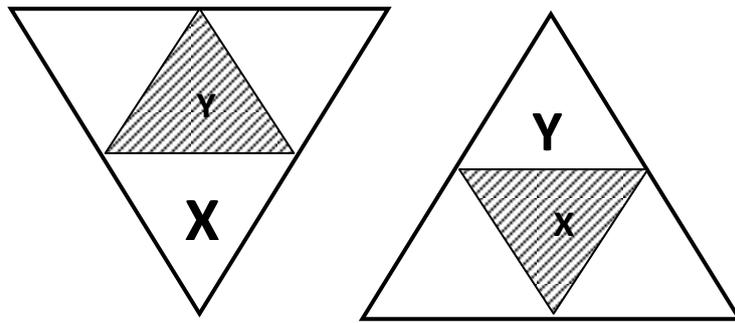
**Fig. 2. Institutional X- and Y- matrices**

The Y-matrix is characterized by the following basic institutions:

- in the economic sphere: *institutions of a market economy*. Market-oriented economies are characterized by a situation where horizontal exchange relations between economic agents exist;
- in the political sphere: *institutions of a federative (federative-subsidary) political order*;
- in the ideological sphere: *institutions of an individualistic (or subsidiary) ideology*, which proclaims the dominance of individual values and rights over the values and rights of larger communities, where groups are subordinate to personalities, 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 and governing. Nevertheless, the matrices are not and cannot be entirely exclusive of each other, given that both X- and Y-matrices co-exist concurrently in any given case. This is what distinguishes IMT as an approach based not on conflict, but rather on cooperation and collaboration.

In other words, the social structure of any society can be singled out as a dynamic binary-conjugate structure of these two dialectically interacting, yet alternative complementary institutional complexes. The governance of one of the matrices over the other is usually constant in the course of history. The dominant institutions of the prevailing matrix therefore serve as a performance framework for harmonizing complementary institutions from the other matrix (see Fig. 3).



**Fig. 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 these cases Y-matrix institutions are also “a must,” but they have a complementary and additional character instead of a governing voice in society. And conversely, Y-matrix institutions prevail in most European countries and in North America, whereas X-matrix institutions also exist but at a smaller ratio.

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. The most efficient and effective functioning of X- and Y-matrices in each society requires an appropriate institutional balance with all morphologically interconnected institutions.

Why do X- or Y-institutions following historically determined institutional forms dominate in the 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<sup>5</sup>. The national environment can stress an indivisible *communal* system, wherein removal of some elements can lead to disintegration of the whole system or it can amplify a *non-communal* system with possibilities of functional and technological division (Bessonova et al., 1996, p.17-18). The institutional content of a nation developing within a communally-oriented environment is achieved by the tasks of coordinating joint efforts towards efficient and effective usage. In this way, X-matrices are formed under communal conditions.

A non-communal environment, on the other hand, is divisible into separate, disconnected elements; it is more easily able to disperse and can exist as an aggregate of dissociated, independent technological objects. In this case, an individual or group of people (e.g. families) can participate using parts of the non-communal environment in their economy, can maintain their effectiveness, and use the obtained results themselves, without cooperating with other members of the society. When this is the case, the main function of the surrounding social institutional structures is to assure interaction between the atomized economic, political and social agents. Y-matrix institutions are shaped in such a non-communal environment.

To make a summary, in communal environments X-matrix institutions are dominant and Y-matrix institutions are complementary, while in non-communal environments the institutional balance is reversed.

The ratio of dominant and complementary institutions is defined by the changing conditions of political-economic-ideological development. At one extreme, there is an

<sup>5</sup> The role of cultural factors for economic development is investigated in work of the so-called civilization approach (see e.g. Steven Rosefielde (2002, 2005 and 2008). In our research these factors are not investigated.

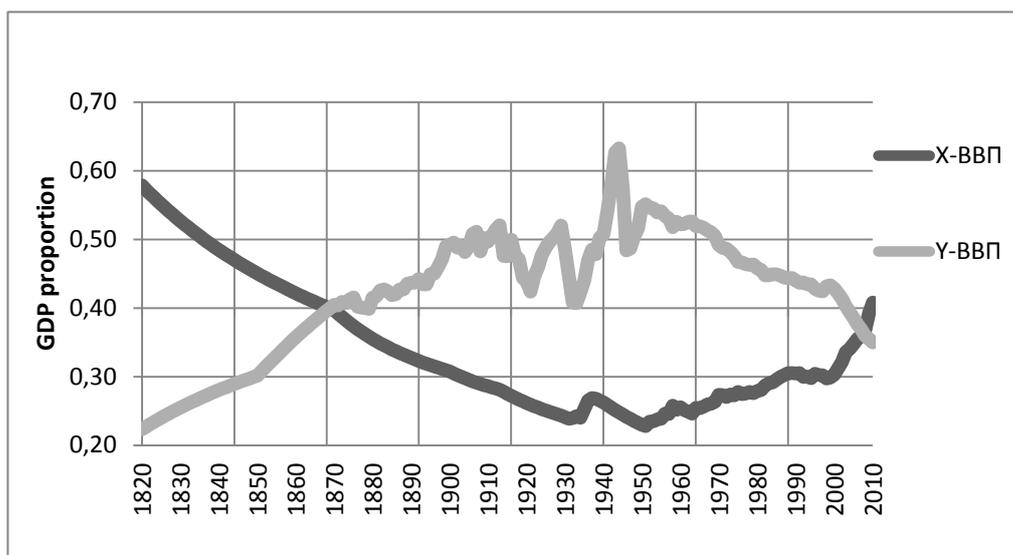
outright dominance of one type of institutional matrices, yet without conscious implementation of complementary ‘other matrix’ institutions. This tends to result in a general systematic collapse (e.g. USSR’s breakdown in the 1980s and ‘90s) or in a social and economic crisis (e.g. the U.S.’s recent 2007-‘09 recession).

The opposite extreme implies an attempt to replace historically dominant institutions with complementary ones. This move leads to revolutions through reconstructing dominant institutions into new forms (e.g. the French Revolution as a reaction to economic and political centralization and, alternatively, the Russian October Revolution as the 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 making in each country is thus to support the optimal combination (cf. proportional balance) of predominant and complementary institutions. For example, economic policy aims to find the best proportion between market and planned redistributive institutions as well as means to their modernization (*Kirdina, 2003*). People and authorities can actively help to achieve this balance faster and more efficiently with concentrated “teleological” efforts, rather than just letting “unguided” evolutionary history (cf. “the invisible hand”) take its course.

Like Marx’s economic doctrine IMT is built as a systemic political-economic-ideological theory of society, which means recognizing the role of technological change and environment for national development, including the building of “human-made” institutions. Sharing many of the presumptions of Marx’s institutional doctrine and accepting broadly his analytical schemes, IMT updates and elaborates them in an attempt to better understand our dynamic and complex contemporary globalized situation.

#### 4. The comparative role of nations with X- or Y-matrix prevailing

To compare the role of countries with X- or Y-matrices prevailing we will focus on measures of their GDP. Preliminary analysis shows that GDP proportions have been changed cyclically during a history of almost 200 years (see Fig. 4).



**Figure 4. Proportion of GDP produced by countries with a prevailing X- and Y-matrix, 1820-2010**

Search: Maddison Data Base, <http://www.ggdc.net/MADDISON/oriindex.htm>

The sample for this analysis included 34 nations (~75% of World GDP), data from which were available for the period of 1820-2010. 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).

We can see a long wave over a period of 140 years with a clearly distinguished GDP leader of Y-matrix countries. From 1820 (and before) to 1870, GDP was led by countries with a prevailing X-matrices, after which Y-matrices became dominant. The maximum spread between shares of Y-matrix and X-matrix countries in terms of GDP took place in 1950-65. But since the 1970s, the trend of Y-matrix countries' dominance has gradually decreased; and since 2008 the share of X-matrix countries has once again returned to prevail and this wave keeps growing.

Looking at this dynamic development, can we say that a new cycle in the global order has started?

## 5. Concluding Remarks

Institutionalists know that the *path dependency* approach has become more and more popular in modern institutional research, especially when it involves comparative studies. In our point of view, this approach can be fruitful to understanding and elaborating a methodology as well. We started this paper with focus on the Marxian school to analyzing social institutions, then developed these ideas and the anthropological vision of Karl Polanyi within the system paradigm in economic theory and used all these approaches to construct a new institutional matrices theory (IMT). . IMT has been presented therefore as a methodological outcome of social scientific *path dependency*. IMT allows us to distinguish not only two types of historically co-existing nations, but also two types of institutional complexes (so called X- and Y-matrices) that interact complementarily within each country.

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 (like Russia, China, Brazil, India, etc.) has prevailed over Y-matrix countries (like the USA and Europe) 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 crisis the role of government regulation, centralized management and communitarian ideology of "common survival" has become increasingly popular.

The start of a new "institutional long wave" requires a new intellectual platform to support a global dialogue of civilizations. This dialogue can be based on institutional complementarity and proportionality instead of on general acceptance of "western" superiority and capitalism as a universal ideal. We hope that institutional matrices theory (IMT) will be helpful for interpreting and developing this important task.

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