

SYSTEM SHIFTS AND BENCHMARKS OF WORLD DEVELOPMENT

It seems that the radical changes in the structure and intensity of influence of the world development's factors and actors, taking place over the first 20 years of the 21st century, acquired more or less definite features by the end of the period. Taking historical phenomena and trends into account, the said features allow to come to some conclusions about laws governing these changes and their results. China's advancement into the group of the world leaders, sudden intensification of Russia's activity in international cooperation and dealings, reorientation of the foreign policy of the USA, brewing change of the European Union's composition with a number of new, unrecognized, partly recognized or even prohibited states' emerging as subjects of the regional and world politics – all that tells about reconfiguration of the world political and economic space. At the same time the globalization process that was the main driver of the socio-economic development during the previous 20 years, makes room for the regional localization (often nationalization) acts. The contradictory combination of globalization and localization as factors gives an impression of uncertain future and intermediacy of the period we live in.

Is there a common reason and trend in the above-mentioned phenomena? What governing laws is it possible to see in the dynamics of world development? In this paper prepared at the expense of the Russian Science Foundation's grant, project # 14-18-02294, we give the answers to these questions, basing on the methods and results of the new theory of socio-economic systems¹ as actual realization of J. Kornai's system paradigm². We specify the notion of the "system shift" when applied to the world socio-economic system, we demonstrate that

¹ Клейнер Г.Б. Новая теория экономических систем и ее приложения. Вестник РАН. 2011. Т. 81. № 9. С. 794—808. (Kleiner G.B. The New Theory of Economic Systems and its Applications. RAS Bulletin. 2011. V. 81. # 9, pp. 794-808.)

² Kornai, J. The System Paradigm, William Davidson Institute Working Papers Series 278, William Davidson Institute at the University of Michigan, 1998. Корнай Я. Системная парадигма // Вопросы экономики, 2002, № 4. (Kornai J. The System Paradigm // Questions of Economics, 2002, # 4.)

transfer from globalization to localization at the mega-level is a consequence of a deeper and more large-scale world economic process – cyclic change of fundamental characteristics (type) of world economic sphere as a socio-economic system. In the course of these changes the power center of the group of growth drivers is transferred from global (national and international) factors and conditions to local in time and space events of international importance with the following reverse transfer. The drift from environmental factors to process factors, from them to event and further to national and again to environmental factors as determinants of development is typical for all socio-economic systems. It is accompanied by re-allocation of socio-economic resources at the mega-level – labor, capital, natural resources and entrepreneurship skills, transfer from their independent distribution in the global space to concentration in each certain country. This process may reduce the global efficiency of resources' use on a global scale; however, it will lead to increase of predictability of separate countries' development and increase of national variety. All effects connected with this system cycle should be taken into account when forming middle-term and long-term state policies.

1. World community as a socio-economic system

The system paradigm suggested by J. Kornai at the turn of the 21st century as a general method for application of the systemic approach in socio-economic research³ and developed later as a new theory of socio-economic systems⁴, allows to interpret the global socio-economic space and time as a complex (to be more exact, population) of socio-economic systems of various levels, scales and purposes. Such systems include states, sustainable associations and unions of states, transnational corporations, big international organizations, inter-state programs and mega-projects, etc. It makes sense to refer various formal and

³ Kornai, J. op. cit. Корнай Я. op. cit.

⁴ Kleiner G.B. op. cit..

informal international standards, protocols, regulations, traditions and other institutions to socio-economic systems as well, examining them together with state and public structures, providing monitoring and control over the observance of the said standards. Similarly, transboundary flows of financial and human capital, information, knowledge, organizational and technological innovations, etc., also examined together with institutions providing these processes, are included in subsystems of the world socio-economic system.

In this perspective research of the results of world community's functioning comes down to examination of common and specific features of the structure and functioning of nation-states, transnational and supranational socio-economic systems, including the world community as a whole. In this context the notion of a system shift gets definition and scientific grounding.

To that end it is required to refer to classification of socio-economic systems. The new theory of socio-economic systems singles out four basic types of systems depending on configuration and character of systems' interaction with the surrounding spatial and temporal continuum: the object-type systems, having more or less definite borders in space (living area) which makes exchange of goods, people and other factors of production more difficult, and indefinite borders in time; process-type systems, on the contrary having more or less definite borders in time (life cycle) and having no definite spatial borders; event-type systems having certain borders both in global space and calendar time; environmental-type systems with indefinite area and life cycle. States, associations and unions of states can serve as examples of object-type systems. Social networks realizing information distribution processes are examples of process systems. The international law system can be looked upon as an example of a mega-level environmental system. Building a hadron collider or launching an international space station are examples of event (project) type mega-systems. Each real socio-economic system combines features of all the four basic types, however, as a rule, features of some type dominate.

A combination of basic mega-level subsystems of a certain type is also a system of this type. Thus, there are four backing-up mega-subsystems singled out in the world community's structure: environmental, process, event (project) and object (national). The world socio-economic community combines features of all four types of systems during various periods in various proportions. To put it differently, the object, process, project and environmental megasystems are inalienable parts, to be more exact, hypostases of the world megasystem. This or that subsystem's dominating periods are characterized by fairly certain special futures of international processes taking place.

Four mega-subsystems, examined in complex with mechanisms and exchange processes of four kinds of systemic products (public long-term, public short-term, private long-term, private short-term), form the basic system structure of the global world⁵. Depending on correlations reflecting the role of each of the four mega-subsystems in the whole world system's functioning, we can speak about the proportions of the world's system structure.

It's necessary to understand that from the strategic point of view the world requires each of the four mega-subsystems, in aggregate providing the balance of stability and changeability, homogeneity and diversity of the world, however, in various periods of world dynamics the importance of efforts to support their development is unequal.

Researching world dynamics in the 20th and the 21st centuries, one can note that one of the megasystems dominated in the world community during every historically significant period. Factors provided by special features of the dominating megasystem and its mission among the four megasystems, serve as drivers for the global world's development during this period. At the same time event (project) systems are the most active and introduce the biggest diversity both

⁵ **A similar structure for national economies is presented in:** Клейнер Г. Устойчивость российской экономики в зеркале системной экономической теории (Часть 1). Вопросы экономики. 2015. № 12. С. 107—123. . Устойчивость российской экономики в зеркале системной экономической теории (Часть 2). Вопросы экономики. 2016. № 1. С. 117—138. (Kleiner G. Stability of Russian Economy Mirrored by System Economic Theory (Part 1). Questions of Economics. 2015. # 12, pp. 107-123. Stability of Russian Economy Mirrored by System Economic Theory (Part 2). Questions of Economics. 2016. # 1, pp. 117-138.)

in the spatial structure of the surrounding world and the temporal structure of the world. On the contrary, functioning of environmental systems helps to increase the level of space's uniformity and dynamic's stability. Object and project systems occupy an intermediary place between active event systems and passive environmental systems. Object systems provide stability in the area of their activities and process systems help to increase the uniformity of space within the limits of their life cycle.

If an event/project, (event) mega-subsystem dominates in the global socio-economic space, important for the world changes are inevitable both in distribution of territories for separate countries and sudden changes in development trends in many countries. The "event age" comes. It is often called times of change as well.

If an environmental system dominates, the national structure of the worlds becomes stable and it is possible to speak about a period of sustainable development – "stability age" (in Russia such a period is also called "stagnation period"). This period is often accompanied by relaxation of international tensions.

Stabilization of the global world's territorial structure, concentration of efforts on internal national development ("house building age") are typical for the period of object megasystem's domination. At the same time inequality of separate countries' development may lead to escalation of tensions in international relations.

Process system's domination is manifested in activation of inter-state global processes and strengthening of the world community's influence on the whole ("globalization age"). Because of limitations of the process systems' life cycle, the length of this period is also limited.

2. What are system shifts in the world socio-economic system?

Using the conceptual apparatus presented in short under item 1, we can word the notion of the system shift as to the global socio-economic system. As the most

important system features of the global world are determined by the type of the domineering mega-subsystem, we should understand the change of the type of the megasystem domineering in the world as a *system shift* in the global socio-economic space.

The original idea of the canonic sequence of changes of global megasystems' domineering periods may be composed basing on the tetrad concept – the complex of four sustainably interacting systems of four various basic types. According to this concept, interaction of tetrad components is realized as a chain (cycle) “object system – environmental system – process system – project/event system – object system”. Such sequence appears when any level tetrads are operating – micro-economic, meso-economic (sector or regional), macro- and mega-economic. Hence the sequence of age changes in the global world dynamics looking as follows: “national house building age – stability age – globalization era – times of change”, after which the cycle repeats.

One should mention that usually there are no precise borders between the stages of the system cycle, and every new stage begins earlier than the previous one ends as if growing up in its midst. Because of that identification of the current stage presents certain difficulties. At the same time the knowledge of canonic sequence allows to give even if not quantitative then at least qualitative forecast for the world dynamics.

Special features of stages (“ages”) if applied to our times are presented in the table below.

Table

Classification and distinctive features of world development periods

Period's name	Dominant megasystem	Specific phenomena
Stability age (era of relaxation of international tensions)	Environmental (global-scale) megasystem	Heightening of the role of international organizations, values common to all mankind and all

		states, struggle for human rights. Creation of the Internet as a global communication platform
Globalization age (era of eased inter-state distribution of resources)	Process megasystem	Globalization, development of communication means, social networks. Expansion of inter-state migration.
Event age (era of internationally important events/projects)	Event (inter-state) megasystem	Change of geographical borders of countries. Emergence of new states. Emergence, liquidation and change of composition of big international unions. Primacy of political interests over economic interests. Heightening of national leaders' role.
Age of national interests' priority (era of national house building)	Object (national) megasystem	Nationalization, priority of national interests.

Nowadays, the globalization era as a part of the four-part cycle of world dynamics is coming to an end. Transfer to the “national house building” stage is accompanied (or preceded) by alteration and reshaping of the political world map. The European Union composition is changing. Russian and Ukrainian borders change, a number of unrecognized, partly recognized and even prohibited states emerged. There are local armed conflicts. All this suggests the “times of change”.

At the same time the contours of the next stage – the age of national house building – begin to sprout. Each of the states (consolidated groups of states) determining the “agenda” of world geopolitics today – Russia, China, the USA, the European Union - concentrates more and more, though at a different speed, on

realization of national interests at the expense of global values. Idealism gives way to pragmatism.

In that environment one is to expect heightening of the role of state leaders capable to consolidate the people of their states. At the same time risks to transfer personal relations between leaders to relations between states and even nations increase. At the whole world level the “economy of natural persons” is transformed into the “politics of natural persons”. Recently, the number of situations when personal relations of leaders become the leading factor in inter-state relations, has escalated quickly. At the same time the people and business become a kind of hostages in the “struggle of iron chancellors”, if we use V. Pikul’s words. This refers to Russia’s relations with other states to a big extent.

The general conclusion is that system shifts taking place in the end of the 20th century and the beginning of the 21st century brought the world to the “times of change”, within the framework of which one can see sprouts of the “national autonomy age, or nationalization”.

3. Benchmarks and system shifts

The theory of system cycles of the world socio-economic dynamics allows to set forth several basic principles, following which could assist both reduction of the grade of global development’s uncertainty and increase of its efficiency.

1. *Cycle recurrence principle*. According to this principle, geopolitical strategy at each stage should be built taking into account inevitable completion of this stage in the foreseeable future and return to it in the long-term perspective. Because of inertial character of the socio-economic sphere’s development this means that decisions taken at this stage in certain historical environment may become precedents and serve as samples for solutions during the period of cyclic return to this stage. This increases responsibility of leaders a lot and may in case of proper perception, become a factor for increase of importance of the strategic component of national government.

2. *System proximity principle.* According to this principle, the state politics at each stage should take into account “sprouting” of the adjoining stage within the limits of the current stage. Thus, efforts at the event stage should be spent not only on lessening negative consequences of geopolitical changes for a certain country, but also on activation of concentration processes for all basic kinds of resources (labor, capital, natural resources, entrepreneurship skills) on the territory of this country.
3. *Principle of changing national leadership.* In contrast to the suggested previously⁶ variant of changing national leadership when alternation of system stages of world community’s dynamics was not taken into account, in case of this approach it is suggested to rely on the four-cycle development pattern with alternating domineering of each of the four megasystems. It could be natural if the country having the qualities of the domineering megasystem to the largest extent could become a temporary informal leader. For example, China has features of the process system to the largest extent; the USA - project (event) system; Japan – object system; Russia – environmental system.
4. *Principle of relying on systemic mechanism of world community’s functioning.* Knowledge of general governing laws of world dynamics allows not only to prepare for the coming of the new development stages ahead of time, necessity to meet the demand for new specific systemic qualities of a certain country but also use such systemic mechanisms as basic tools of the global politics as event-management (generation and management of global events); diversity management; environmental information effect manipulating, in particular, information phantoms (objectively originating associative information clusters), etc.

⁶ Клейнер Г.Б. Концепция переключающегося лидерства в международном сообществе как ответ на глобальные вызовы современности Лихачевские научные чтения, 19-21 мая 2016 г. — СПб.: СПбГУП, 2016. — С. 127-131 (Kleiner G.B. The Concept of Changing Leadership in World Community as an Answer to Global Challenges of the Modern Times. Likhachev Scientific Conference, May 19-21, 2016. St. Petersburg: St. Petersburg Humanitarian University of Trade Unions, 2016, pp. 127-131.)

5. *Principle of priority of sustainable development of economic, social and cultural inter-state relations.* The stages of world development's system cycle are equally required, but they are not of equal worth. The "stability age" is most favorable for socio-economic development, it allows not only generation but also filtration, selection and approbation of socio-economic innovations. In a certain sense this period can be looked upon as the basic one for the whole system cycle. Approaching and expansion of this stage at the expense of various anti-crisis events and mechanisms should become one of the main directions of the system geopolitics. Figuratively speaking, only those formations and phenomena that have the features of systems, have the right to stability. Because of that the consistency principle should be the basis of these mechanisms, in this case it is the unity of social, economic, ecological and cultural development aspects. Currently, these four factors and corresponding channels of inter-state cooperation as a rule function autonomously or in pair correlation mode. Here it is appropriate to remind about the offer to create *culturomics* – the theory, methodology and methods for carrying out socio-economic activities based on culturologic identification and appraisal of socio-economic phenomena.

On the whole, it's possible to come to the conclusion on the basis of everything above-said that there are considerable cognitive, ideological, scientific, methodological and political reserves for increase of predictability, stability and manageability of world development.