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## **Structural and Logical Model of Contemporary Global Economic System**

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***Abstract:***

*The purpose of the article is to build a structural and logical model of contemporary global economic system, forecast its development in future, and development of recommendations for maximization of advantages and minimization of negative aspects of such development. The authors focus on the problem of deepening contradictions of interests of various members of the global economic system with development of integration processes and on the problem of increase of the global economic problems with economic development of the global economic system. Methodology of conduct of the research in this work includes problem, systemic, and structural & functional analysis for determination of specifics of functioning of contemporary modern economy, as well as SWOT-analysis for determination of perspectives of its development. The authors analyze evolution and view specifics of modern stage of development of the global economic system, perform modeling of current state and tendencies of development of global economic system, and determine perspectives and compile recommendations for development of contemporary global economic system.*

***Key Words:*** *global economic system, global economic problems, developed countries, developing countries.*

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## **Introduction**

Contemporary global economy is a comprehensive system consisting of interconnected elements. All modern economic systems are – to a certain extent – involved into international economic activities and contribute into its development. The recent global financial crisis showed a strong connection between economies of various countries.

Under the conditions of close interdependence, economic systems cannot seek only their own interests and are obliged to correspond to global priorities of economic development. In order to understand which strategic landmarks should be set in the global scale and which global tasks should be solved first, it is necessary to know the state of things in the global economic system, as well as possibilities and perspectives of its development.

This predetermines high actuality of modeling of current state of the global economy and future tendencies of its development – which is viewed in this research, aiming at building structural and logical model of contemporary global economic system, forecasting of its development in future, and development of recommendation for maximization of advantages and minimization of negative aspects of this development.

The authors focus on the problem of deepening contradictions of interests of various members of global economic system with development of integration processes and problem of strengthening of global economic problems with economic development of the global economic systems.

While initially the most important economic problem was limitation of production capacities, and key task – increase of production capacities for satisfaction of unlimited needs, at the modern stage production capacities reached such level of development that there's a necessity for artificial creation of needs and stimulation of demand.

Thus, relations between humankind and environment are aggravated. The most economically developed countries implement various limitations for economic activities for the purpose of preservation of fragile balance of interests of production and keeping favorable conditions for living.

Developing countries, on the contrary, continue to grow rates of industrial production, which aggravates living standards in these countries and, together with overpopulation, leads to growth of migration flows into developed countries, living standards of which also reduce under the influence of this process.

The above contradictions are only some of the global economic problems of modern times, which have to be solved as soon as possible. Thus, the article is aimed at

regulation of disputable situations and balance of interests of members of contemporary global economic system, which determines its practical direction and high social significance.

### **Materials and methods**

Theoretical basis of the research includes works of modern authors in the sphere of study of sense and specifics of functioning of contemporary global economic system, its evolution and structure, and factors and determinants of its development at present and future, which include the works by (Aslam & Azhar, 2013), (Jahfer & Inoue, 2014), (Savic et al., 2014), (Md. Al & Sohag, 2015), (Eltejaei, 2015), (Kokodey, 2013), (Isabel, 2015), (Qoboa & Dubeb, 2015), (Drezner, 2014), (Bilorus, 2013), (Pulselli et al., 2015), (Klinov, 2015), (Galbraith, 2015), etc.

According to the latest research, contemporary global economy develops dynamically (Ghartey, 2015), which stipulates its periodical restructuring (Othman et al., 2014) and change of growth poles (Popkova, 2014). Certain scientists distinguish in the structure of global economic system the countries of core, semi-periphery, and periphery (Inglesi-Lotz et al., 2014). Others distinguish developed and developing countries which also have their own structure (Maswana & Farooki, 2013), which, according to the authors of this research, is the most authentic.

Based on the literature review, it is possible to conclude that the problem of the research is well studied and viewed in multiple research of modern scientists. However, despite the high level of elaboration, this problem is not yet solved, which causes necessity for conduct of further research in this sphere. Methodology of research in this work includes method of problem, systemic, and structural & functional analysis for determination of specifics of functioning of contemporary global economy, as well as methods of SWOT-analysis for determination of perspectives of its development.

### **Evolution and specifics of modern stage of development of the global economic system**

History of development of the global economy is rooted deeply in the Age of Discovery. At the first stage of development of the global economic system, which lasted from early XVII to mid-XX century, countries of Western Europe established their domination in the global economy. That was a period of colonies and mother countries, when some countries were in economic and political dependence on others. This period was peculiar for ideas of protectionism.

At the second stage – from middle to the end of XX century – independence of all countries of the world was proclaimed and free economic relations among various economic systems were established. This period was peculiar was free trading.

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Under the guidance of the USA, most of countries of the world set a course at development of open market economy with free competition and minimal state's interference with market processes.

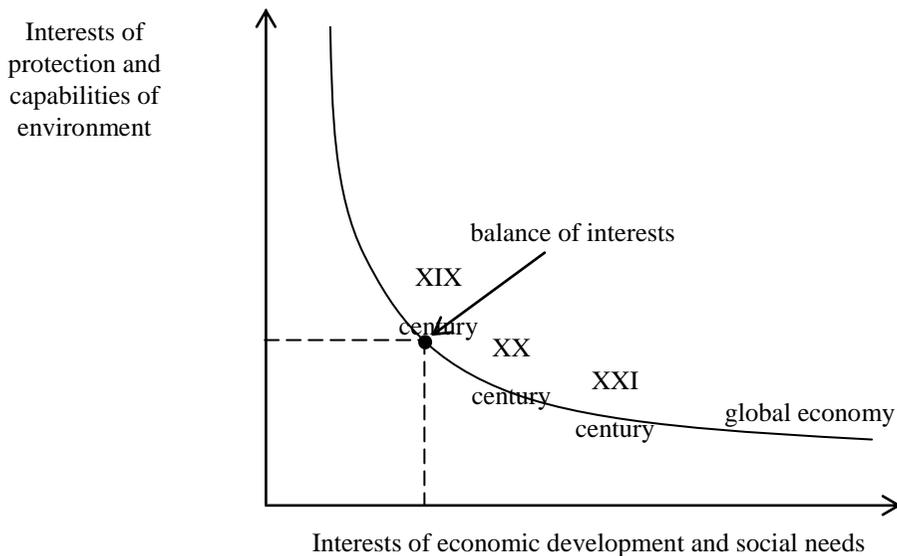
Contemporary stage of development of the global economic system is the third one. It began in XXI century and lasts till now. At present, it is obvious that market's falls are so deep that there's a necessity for more serious state regulation of economy. Most of countries conduct mixed economic policy which combines features of free trading and protectionism. Specifics of modern stage of development of the global economic system consists in the following:

- struggle of developed and developing countries, which form two global groups: countries of America and Europe against countries of Africa and Asia, reached its limit, and both sides are interested in elimination of the gap;
- the problem of overpopulation of countries of Africa and Asia is very urgent – its main consequences are mass diseases, famine, and uncontrolled migrations into developed countries;
- growth poles of global economic systems are changes – the USA gradually loses its leading positions, giving way to China;
- sphere of services, especially financial ones, ceases to be targeted landmark for economic development and is changed by real sector of economy (industrial production), etc.

It is necessary to note the growing problem of resources depletion. For several years in a row, scientists have been forecasting various natural disasters related to irresponsible attitude towards issues of protection of environment. During XX century, in the period of industrial revolutions and boom of industrial production, it was a key sector of economy and main sphere of population employment.

During this period, irreparable harm to environment of most countries of the world was dealt. Nowadays, developed countries have limited norms of environment pollution, but there are no such norms in developing countries – and the state of ecology continues to worsen. Evolution of contradiction of interests of development of the global economy and protection of environment is shown in Fig. 1.

As is seen from Figure 1, up to XIX century issues of environment protection dominated over interests of economic development. This was primarily determined by limitation of production capacities of economy. At the beginning of XX century, there was still a balance of interests of industry and ecology, which may be called Pareto optimum in this context.



**Figure 1.** Graphical illustration of evolution of contradictions of interests of development of global economy and environment protection

In XX century, due to appearance of mass industrial production, social needs began to prevail over capabilities of environment. At present, in XXI century, the global economy develops very quickly. Despite the fact that industrial production is formally taken to developed countries, damage done to planet's ecology didn't reduce – which causes necessity for complete solution of this problem.

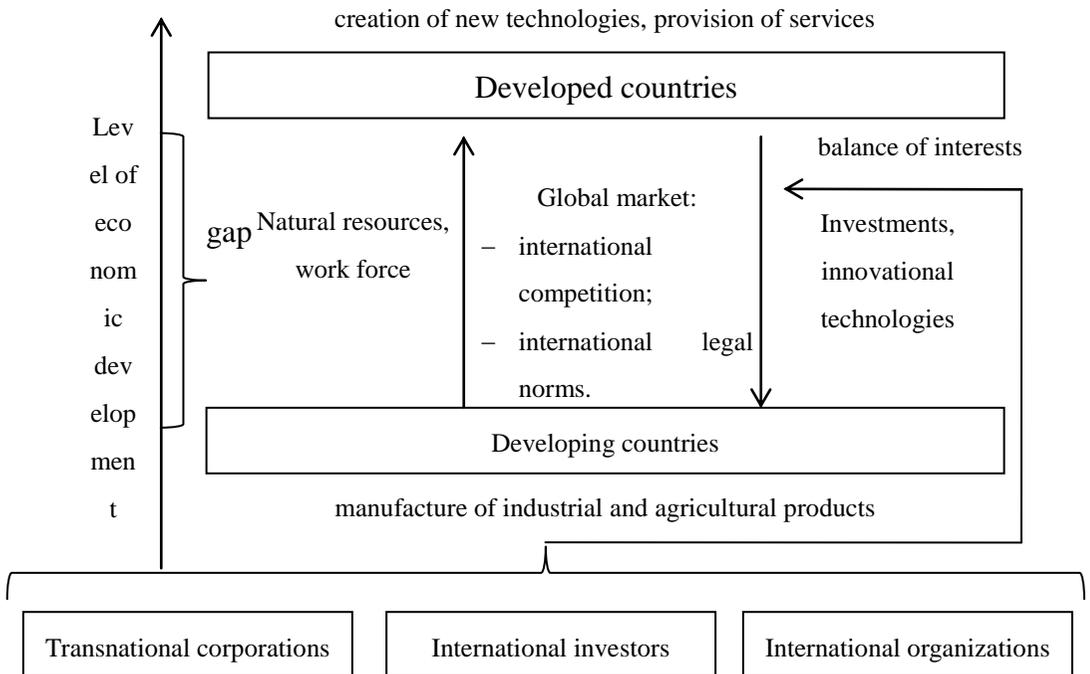
### **Modeling of the current state and tendencies of development of the global economic system**

The most important tendencies of development of the global economic system are the following:

- tendency for countries' integration in the global economy – under the influence of the idea of globalization, countries form integration associations, which are called regionalization – the process of enlargement of global economic agents, when not separate countries but the whole regions act the global arena;
- simultaneous tendency for disintegration of economic systems – while some countries strive for joining successful integration unions, the other are aimed at acquisition of independence both from integration union of countries and from the country to which they belong;

- tendency for change of growth poles of modern global economy – traditional Western European domination is weakened, giving way to quickly growing Asian economies (China, Japan, etc.). Russia also strengthens its positions, participating in various integration unions;
- tendency for change of political and economic methods of regulation of international conflicts of interests with the use of military force – while at first, dissatisfaction of developing countries with their position was hidden, now they do not want to occupy last positions in international rankings and experience global economic problems. They wage open military struggle against developed countries, which is characterized by continuous series of terroristic acts all over the world, revolutions, and military actions in various African countries.

The most important subjects of international economic relations include developed and developing countries; their relations determine the character of global economic situation. There's a large gap among them in the level of economic development. They meet in the global market, with international competition and international legal norms (Fig. 2).



**Figure 2.** Structural and logical model of modern global economic system

As is seen from Fig. 2, developed countries specialize on creation of new technologies and provision of services. They present investments and innovational technologies in the global market. A key direction of international production

specialization of developing countries is manufacture of industrial and agricultural products. They introduce natural resources and cheap work force in the global market.

Apart from them, the structure of the global economic system includes transnational corporations, international investors, and international organizations which strive for balance of interests of developed and developing countries.

### **Perspectives and recommendations for development of the contemporary global economic system**

The recent global financial crisis allowed determining inverse dependence of the depth of recession of its economy on the level of innovational development of economic systems, i.e., the following regularity: the higher the innovational activity of enterprises in the country, the less deep and less long the recession – as innovations allow lightening consequences of crisis and quickening its disappearance.

Thus, the economic formula for determination of perspectives of economic development of systems could be written in the following way:

$$PED=CLD*IPL*RIP \quad (1)$$

where PED – perspectives of economic development of economic systems;

CLD – current level of economic development of economic systems;

IPL – innovational potential of economic system;

RIP – realization of innovational potential of economic system.

As is seen from formula (1), perspectives of economic development of economic system are product of current level of economic development of economic system, its innovational potential, and its realization. Innovational potential of economic system is determined by its intellectual capital, as a source of innovations, and production capacities, as means of implementation of innovations into economic activities.

Realization of innovational potential of economic system depends on innovational and entrepreneurial activity of its subjects. It should be noted that these indicators are very difficult to be measures quantitatively – that's why this formula should be used for comparison of perspectives of economic development of various economic systems.

Thus, current level of economic development of developed and developing countries differs a lot. That's why, in order to achieve the level of developed countries, developing countries need to strive for maximization of innovational potential through development of intellectual resources, and its realization, through

development of business. SWOT-analysis of development of modern global economic system is shown in Table 1.

**Table 1.** Results of SWOT-analysis of development of contemporary global economic system

Positive aspects of current state of the global economic system	Negative aspects of current state of the global economic system
all countries' understanding necessity for solving global economic problems	developed countries' unpreparedness for losing dominating position in the global economy
temporary stop of the global recession and possibilities for new economic growth	insufficient innovational potential and lack of possibility for its realization with developing countries
Positive structural shifts in the global economic system, related to change of growth poles	unpreparedness of the global consumption society for refusal from increase of volumes of industrial production
possibilities for development of the global economic system	threats to development of the global economic system
perspective of countries' uniting against the threat of the most urgent global problems	Military threat to the global economy due to impossibility for solving existing contradictions in peaceful (political) way
perspective of creation of technologies which will allow solving some global problems without damage to interests of economic development	threat of new economic crises due to incapability of learning lessons from the recent crisis
perspective of increase of economic and political and ecological consciousness of population of the world	threat of global ecological disaster due to increase of volumes of global industrial production

As is seen from Table 1, possibilities and perspectives of development of the global economic system are largely determined by random factors, probability of appearance of which is very low. This causes necessity for building a negative forecast of development of the global economy without implementing significant changes into its economic mode.

The following recommendations are offered for provision of stable and sustainable development of modern global economic system and overcoming global economic problems:

- refusal from the idea of certain countries' dominating over others and proclamation of equality of all countries of the world;
- refusal from the idea of domination of economic interests over ecological, which supposes reduction of volumes of global industrial production and

- change of global consumption society to society with high ecological responsibility;
- introduction of international laws which limit uncontrolled birth rate in the most overpopulated countries;
  - proclamation of countries' right for self-determination and possibility for voluntary participation in integration and disintegration processes and refusal from political and military interference with these processes by developed countries.

## **Conclusions**

As a result of the research, it is possible to conclude that economic situation in the world is rather difficult, being caused by aggravation of global economic problems. The compiled structural and logical model of modern global economic system reflects its unstableness and incapability for stable development at present and in future. This requires realization of deep changes in modern economic processes.

The developed authors' recommendations are aimed at solving two the most important contradictions of modern global economy: contradiction of interests of developed and developing countries and contradiction of interests of environment protection and economic development. These recommendations have theoretical character and allow introducing scientific hypothesis that, as a result of following them, existing global economic problems will be solved. Verification of this hypothesis and practical realization of compiled recommendations is a perspective direction for further research.

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