

Formation of the order structures in the non-equilibrium economic systems

Nikolaev M., Saubanov K.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The purpose of this article is to define the types of order, referred to as the order structures formed in the non-equilibrium economic systems, to identify the relevant factors and to assess the prospects of development of the non-equilibrium systems. The study is based on the use of methods and tools of the nonlinear dynamics theory and the comparative analysis method. The analysis is carried out on the example of the Russian economy compared with the economies of Poland and the United States. It is shown that the fundamental difference between the order structures formed in the non-equilibrium systems and the states of general or partial equilibrium is determined by the differences in the behavior of economic entities, which is usually not rational in practice, as it is supposed by the equilibrium approach, but limited-rational. We built the phase trajectories of the economic systems of the aforementioned countries. We identified and characterized all types of existing and emerging order structures here. The conclusions emphasize: the objective nature of the formation process of the order structures in the nonequilibrium systems; the transient nature of these structures defined by the type of the existing non-equilibrium; the presence of a combination of factors that impede a transition of the Russian economy on the trajectory of sustainable development.
