

Features of nonequilibrium economical systems evolution

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Abstract

The purpose of the paper is to study the problematic issues of nonequilibrium economic dynamics and accompanying negative effects, and to elaborate proposals for their mitigation. The study is based on the use of modern approaches, including the bifurcation analysis and methods of systems self-organizing (synergy). The analysis is carried out on the example of the Russian economy. It is shown that in the course of planning period of its development, the main negative aspects were unbalanced structure of the national economy and preferred orientation on primary industries. Contrary to forecasts, upon transition to the market economy, those negative aspects were supplemented by the deterioration of the institutional structure that was one of the main causes of the negative trends in the macroeconomic dynamics due to increased non-compliance of the structure with the objectives and objectives of economic development in the market conditions, and regular economic crises. The result was preservation of raw materials export model, and the economic slowdown, destruction of the production sector, reducing the competitiveness of the economy and as a consequence, the possibility of increasing the human wellbeing. Among the proposed measures: reorganization of the institutional structure of society; change the economic growth model; implementation of projects with a large multiplier effect, and others.

Keywords

Bifurcation, Dynamic (deterministic) chaos, Economic growth, Economic imbalance, Evolution, innovations, Investment policy, Macroeconomic dynamics, Randomness, Raw materials export model, Self-organization, Self-similarity