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MYTHS AND REALITY MODELING MACROECONOMIC INDICATORS

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Kovtun Natalia
Head of the Department of Statistics and Demography
Taras Shevchenko National University of Kyiv

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Nowadays, a confusion in the possibilities of using formal mathematical and statistical modeling system for macroeconomic indicators, begins at the conceptual apparatus. In fact, mathematical and statistical models in economics are mathematical related system that describes some economic object, process or phenomenon. Besides the similarities in the definitions, there is a similarity in developing goals of mathematical and statistical models in economics (SME) - a mathematical description of the patterns of economic phenomena and processes. However, it has two distinctive features that are inherent for statistical model: (1) is not a result of mental abstract generalizations and (2) SME may describe both functional and stochastic relations (mathematical model - is always a function).

Choosing the structure and form for SME depends on: (1) the available information, (2) capabilities of theoretical phenomenon or process submission, (3) research purposes, (4) object specificity and data processing methods.

In contrast to mathematical models SME development faces difficulties related with the need of deep understanding of the essence of phenomena and processes. Secondly, SME, which are developed for sets of objects to characterize economic systems and based on consolidated statistics - impossible to unify.

An incorrect usage of mathematical models to predict macroeconomic indicators doesn`t bring benefits and likely harm for correct understanding of the nature patterns that occur in the macrosystem. This applies particularly to GDP simulation by regression analysis means. The possibility of using regression analysis requires compliance with certain requirements: the presence of a large sets, normal distribution of unit sets by features, homogeneity of sets and absence of interdependencies. It is clear that the simultaneously implementation of these requirements for macrosystem are only possible under the conditions of set formation on the basis of randomness which by itself is not possible in the absence of units sets.

Despite this, the question is arisen: why macroeconomic indicators are modeled by using regression?

There may be a few replies: (1) misunderstanding of the correlation-regression analysis principles; (2) misrecognition that they are not random variables but calculated indices; (3) lack of knowledge of other tools of macroeconomic analysis and modeling.

Thus, there is no need to model macroeconomic indicators, especially GDP by means correlation and regression analysis, as functional relationships are dominated and there is no need for averaging.

Regarding the GDP forecasting: it may be carried out only by assessing possible changes by components. GDP - it is specified value that not a random variable, not a mass process (there are no individual data on it) and which has an inherent inertia.

If we regard the dynamics of macroeconomic indicators, it must be understood that we are speaking not about the influence or relationship but about similarity or dissimilarity of trends.

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