

Econometric Models of Analysis and Prognosis of Capacity of the Primary T-bills Market

Pavel Shvaiko
Belarussian State University

Abstract

The article is devoted to the decision of a huge scientific problem that has important significance for economy of Belarus, - to development of econometric models of the T-bills market, in particular for such parameter as capacity of the primary T-bills market, with a purpose of determination of potential opportunities for covering budget deficit at the expense of T-bills. Nowadays, the majority of methods used for estimation of capacity of the primary T-bills market are based on the analysis of partial indicators that describe different aspects of the process. Thus, raise a problem of a complex decision of the given target by combining modern econometric approaches.

Results of the research carried out are the new scientific data on trends of dynamics of capacity of the primary T-bills market in conditions of Belarus, and proved prognosis estimators of the given indicator taking into account statistical properties of researched process and providing a high level of its formalization that allows to plan on an objective basis the sizes of covering budget deficit for the account of T-bills.

Within the framework of elaborated econometric models there has been discovered directions of causality for major factors influencing T-bills market, new ratios as cointegration equations have been received, that allows to determine quantitative characteristics of impact of the major factors influencing capacity of the T-bills market. Application of vector autoregressive models with the error correction mechanism enables objectively estimate reaction of capacity of the primary T-bills market to innovations in each of influencing factors and to draw conclusions on errors brought in its forecast by each of them. Developed ARMA model of capacity of the primary T-bills market describes and explains dynamics of the given parameter during the period since January, 1995 till December, 2001. On its basis it has been made the forecast of capacity of the primary T-market for the next year.