

ABSTRACT

for the bachelors work of Bogdan Viktorovich Kirsenko

"Analysis of the stability of a class of economic models"

The bachelors work consists of 104 p., 45 fig., 7 tabl., 2 append., 17 sources.

ECONOMIC MODELS OF SOLOU AND TOBIN, THE GENERALIZED TOBIN MODEL, LYAPUNOV STABILITY

The graduate work is devoted to the analysis of the stability of a number of models of economic growth. The paper deals with the Solou, Tobin and generalized Tobin model. In this work: a) the schemes of construction of the Solou models and the two models of Tobin are presented; b) the analysis of the models was carried out, in particular, the equilibrium position was found and their stability was investigated; c) it is determined that the equilibrium position of the Solou is stable and for Tobin`s model is unstable; d) the condition for asymptotic stability is established (for the first approximation, using the Raus-Hurwitz criterion) for the equilibrium position of the general Tobin model; e) for the generalized Tobin model, the Hopf theorem is applied; e) numerical analysis of models is carried out, confirming and illustrating the obtained theoretical results, as well as providing an economic interpretation of the obtained theoretical results.