World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:9, No:08, 2015

Chaotic Behavior in Monetary Systems: Comparison among Different Types of Taylor Rule

Authors : Reza Moosavi Mohseni, Wenjun Zhang, Jiling Cao

Abstract : The aim of the present study is to detect the chaotic behavior in monetary economic relevant dynamical system. The study employs three different forms of Taylor rules: current, forward, and backward looking. The result suggests the existence of the chaotic behavior in all three systems. In addition, the results strongly represent that using expectations especially rational expectation hypothesis can increase complexity of the system and leads to more chaotic behavior.

Keywords : taylor rule, monetary system, chaos theory, lyapunov exponent, GMM estimator
Conference Title : ICCMS 2015 : International Conference on Chaos, Control, Modelling and Simulation
Conference Location : Amsterdam, Netherlands
Conference Dates : August 06-07, 2015