Bayesian Unit Root Test for Time Series Models with Structural Break in Variance

RISHI KUMAR†, JITENDRA KUMAR‡, ANOOP CHATURVEDI±

ABSTRACT

The present article considers Bayesian unit root test for autoregressive model involving structural break in variance. The posterior odds ratio for testing of unit root hypothesis against the alternative of break in variance has been derived under appropriate prior assumptions for the parameters. The theoretical results are applied to export data of selected ASEAN countries.

JEL Classification: C11, C12, C18, C22.
Keywords: Autoregressive model, break in variance, prior distribution, posterior odds ratio.

† Department of Statistics, University of Allahabad. The authors are grateful to two anonymous referees and to the Editor of the Journal for many useful comments and suggestions on an earlier draft of the paper. ‡ Institute for Development & Research in Banking Technology. ± Department of Statistics, University of Allahabad.