

Robust and efficient specification tests in Markov-switching models

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Abstract

This paper develops a new algorithm for calculating a specification robust test statistics in Markov-switching model. The test statistics can be constructed as a natural byproduct of the routine used to calculate the “filtered” probability that a given observation came from a particular regime, and do not require smoothing techniques or the estimation of additional parameters. Monte Carlo experiments show that the tests have a good finite-sample size and power properties. The tests are applied to investigate the nonlinearity in U.S. GNP growth.

JEL classification: C12; C22; C52

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