Abstract: This paper explores a set of likelihood-based tests for parameter constancy in I(2) cointegrated vector autoregressive (CVAR) models. A new class of test statistics for parameter stability is introduced in the I(2) CVAR framework. This study then proves that their asymptotic distributions are non-standard but free of any nuisance parameters, so it is feasible to approximate the distributions by simulation.
Selected quantiles of the approximate distributions are presented as statistical tables for applied use. Monte Carlo experiments are also conducted to investigate empirical Önite-sample properties of the stability tests. These experiments provide evidence for the practicality of the proposed tests in applied research on I(2) data.
JEL classiÖcation codes: C12, C32, C52.
Keywords: I(2), Cointegrated vector autoregressive models, Stability of parameters, Parameter constancy tests, Asymptotic theory, Monte Carlo experiments.