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Abstract

Title:

Fully Modified OLS Estimation of Spatially Correlated Cointegrating Relationships (with Martin Wagner)

We consider a system of spatially correlated cointegrating relationships. In addition to the correlation induced by the spatial autoregressive formulation, we also allow for cross-unit correlation of the integrated regressors as well as the error terms. Cointegration amongst the regressors is not allowed, as is standard in the cointegrating regression literature. The convergence rate of the spatial correlation parameter is determined by the order of the deterministic trend polynomial. The fully modified ordinary least squares principle is extended to this setting to allow for applying for standard asymptotic inference.

The theoretical results are complemented by a small simulation study. Finally, the methodology is applied to investigate credit risk correlation, where - by using a data set comprising the main U.S. corporate default swap dealers - highly significant spatial correlation is observed.

Keywords: Fully Modified Least Squares, Spatial Correlation.