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On the Use of Panel Stationarity Tests in Beta Convergence Analysis: Empirical Evidence for the EU Countries

Abstract

Ever since the Sala-i-Martin's and Barro's well recognized papers, the issue of beta convergence has gained huge popularity in the literature. A number of methods have been proposed which enable for empirical verification whether the process of convergence actually is taking place starting with the cross-section based Barro regression. One of the tools applied in the analysis of convergence are the stationarity tests (as in Kane, 2001). Formerly applied in the analysis based on time series did not offer too much of a choice regarding the assumptions and details of construction. However, with the gradual development of panel data based stationarity tests, the range of tools available for empirical analysis has rapidly increased. In the article we analyze the existence of beta convergence with the use of a range of stationarity tests with varying assumptions. The comparison of highly mixed results is followed by the analysis of correctness of the assumptions made in each case and their role in the inference process.

Keywords: convergence, catching up, economic growth, stationarity, panel data

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