UNIT ROOT INFERENCE IN GENERALLY TRENDING AND CROSS-CORRELATED FIXED-*T* PANELS*

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February 3, 2014

Abstract

We propose a new panel unit root GMM-based test for panels with a small number of time periods and a large number of cross-section units. The deterministic trend function is unrestricted and the errors are cross-sectionally correlated in a very general fashion. The GMM-statistic is shown to be consistent and asymptotically normal for all values of the autoregressive coefficient, including unity, making it an ideal candidate for unit root inference. Results from both simulated and real data are provided to suggest that the asymptotic properties are borne out well in small samples.