Transformed Maximum Likelihood Estimation of Short Dynamic Panel Data Models with Interactive Effects*

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Abstract

This paper proposes the transformed maximum likelihood estimator for short dynamic panel data models with interactive fixed effects, and provides an extension of Hsiao et al. (2002) that allows for a multifactor error structure. This is an important extension since it retains the advantages of the transformed likelihood approach, whilst at the same time allows for observed factors (fixed or random). Small sample results obtained from Monte Carlo simulations show that the transformed ML estimator performs well in finite samples and outperforms the GMM estimators proposed in the literature in almost all cases considered.

JEL Classifications: C12, C13, C23
Keywords: short T dynamic panels, transformed maximum likelihood, multi-factor error structure, interactive fixed effects

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