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Understanding Cross-sectional Dependence in Panel Data

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Abstract

This paper examines asymptotic properties of parameter estimators for various linear panel data models including dynamic panel models incorporating various forms of cross-sectional dependence. It is shown that, both fixed effect estimator and random effect estimator may be inconsistent in several real life situations with cross-sectionally dependent data. For dynamic panel, IV estimator is considered. The IV estimator is shown to have similar properties as that of within estimator. We also attempt to comprehend the cross sectional dependence based on several popular norms.