Nonparametric panel data models with cross-sectional dependence

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Abstract

This paper develops the asymptotic theory for local linear estimators in nonparametric regression models that are robust to cross-sectional dependence. Under a general parametric error covariance structure, a two-step estimator estimation procedure that incorporates the information in the error covariance matrix is proposed. Sufficient conditions for the asymptotic normality of this estimator are given and its efficiency relative to the conventional local polynomial method is established. Finite sample performance is assessed in a Monte Carlo study.[1]

Keywords: local linear estimation; asymptotic normality; minimum generalized variance; relative efficiency.

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