

**Geographic Network Effects on Risk Sharing in Agrarian Economies:
A Spatial Econometric Approach**
(Preliminary Draft, DO NOT QUOTE)

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Abstract

Many researches have been conducted on intra-village consumption smoothing based on full risk sharing hypothesis. However, the conventional tests ignore geographic network effects, which is important because of transaction costs and spatially covariate shock. Using spatial panel econometric models, this study extends the empirical tests of full risk sharing to incorporate geographic factors. The model estimation results show significant spatial correlation in the error term. Also, this paper quantifies the externality of individual income shock by estimating direct and indirect effects, and finds that income shocks in neighboring households considerably affect consumption comparing to one's own.

Keywords: Risk sharing; geographic network; distance; spatial panel econometrics

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