

The Spatial Dependence of FDI and Innovative Activity in China

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Abstract

This paper tries to develop an analyzable framework of the effects of spatial knowledge spillovers on economic growth of China. Firstly, this paper investigates spatial pattern of FDI inflows in China according to the spatial neighboring effects of knowledge flow; Secondly, this paper analyses the spatial dependence process of interaction between knowledge spillovers of FDI inflows and innovative activities in China, so as to look for insights on the mechanics of knowledge interdependences across regions;; Finally, it is expected to get the practical implications about a spatial policy of driving local area success growth . In accordance with the theory and method of spatial interdependence, heterogeneity, variation of knowledge spillovers involved with spatial econometrics, the paper uses Chinese provincial data to investigate the empirical evidences of the effects of knowledge flow and spatial spillovers on innovative activities of China. On the platform of GeoDa and EViews software system, the spatial econometrics models of spatial pattern and spillovers effects of FDI inflows are built so as to examine the spatial variation of knowledge flows in Chinese provinces. This paper points out the ideas of spatial interdependence, heterogeneity, variability of knowledge spillovers, so as to indicate spatial association process between FDI inflows and innovative activities in China. This paper constructs the methodology of Negative binomial and Poisson probability distribution model in FDI inflows and innovative activities, and applies the methods of spatial econometrics in analyzing the mechanics of dissemination and agglomeration of innovative activities in China as well as characteristics of knowledge spillovers with distance decay effect. It is expected that the studies make policymakers get a good understanding of spatial association process between FDI inflows and innovative activities in China. In addition, this paper suggests that spatial dimension of effects of knowledge spillovers generating by FDI inflows in China on innovative activities can not be ignored. The derived suggestions and policy implications of spatial agglomeration and dissemination of innovative activities are very helpful for policymakers.

Keywords: Spatial Dependence, Foreign Direct Investment, Innovative Activities, China.