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FDI facilitated by agglomeration economies: evidence from manufacturing and services joint ventures in China

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Abstract

The open door policy of China's economic reform since the 1980s has attracted heavy foreign direct investment (FDI) flows into China and especially to Guangdong (particularly the Pearl River Delta region, PRD) and induced significant economic growth during the past two decades. While there exist various classical theories of FDI in attempting to identify the determinants of FDI inflow and to explain the behavior of FDI flows, limited attention has been given from the perspective of agglomeration effects generated by a core-periphery (CP) relation.

This paper intends to study the impacts of agglomerations on FDI inflows in the context of Krugman's CP relation (1991) by investigating (1) the formation of a CP relation via gravity model analysis; (2) whether different types of industry FDI flows will respond differently in the CP-system, given agglomeration effects; and (3) whether FDI origin and firm scale matter in affecting FDI flows.

A database consisting of a population frame of 37,742 firm-level manufacturing and services joint ventures investing in Guangdong in 1998 was used. Empirical results show that the agglomerations of the CP relation have affected FDI flow patterns. While both manufacturing and services FDI and sources of investment responded differently to the impacts, smaller firms were found more responsive to the CP-agglomeration settings regardless of FDI by industry type and by source. The significance and implications of the CP-system to further facilitate FDI in the region are discussed.

JEL classification: F2; O19; R12

Keywords: FDI; Industry agglomeration economies; Core-periphery system; China; SME

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1. Introduction

With the huge influx of immigrants, technology, and capital from China after World War II, Hong Kong (HK) has attained her remarkable export-led economic growth via industrialization. GDP growth in real terms recorded 10.1% and 9.8%, on the average, during the periods of 1960–1970 and 1970–1980, respectively. As one of the Asian Newly Industrialized Economies (NIEs), HK's manufacturing together with the growing service sector, in particular in banking and finance, had transformed HK to become a successful city economy in many aspects ever since the 1970s.

On the other hand, HK's ''passive'' industry policy also made the private business sector to initiate industry upgrade less viable for manufacturing which is mainly dominated by small, labor intensive firms (Tuan & Ng, 1995c). The situation was even more critical in the late 1970s when considering her eroding competitive edge, given the facts that HK's World market competitors and the other Asian NIEs had been seriously adopting more proactive policy to push for the development of high technology industries such as industrial electronics, information, and communications (Tuan & Ng, 1995a).

The economic opening of China in about the same time provided HK an alternative to achieve sustained economic growth. Given China's preferential FDI policies and establishments of the four Special Economic Zones (SEZs) with three of which located in the proximate Guangdong province,[1] HK's manufacturing FDI first started in Guangdong in the form of sub-contracting and subsequently other various forms of cross-border operations including plant relocations so as to reduce manufacturing production costs and maintain its competitive edge in the World market (Tuan & Ng, 1994).

With such an outward processing production, HK continued to enjoy her export and re-export led economic growth until the late 1990s (Tuan & Ng, 1998). Before the contagion effect of the 1997 Asian financial crisis finally hit HK in 1998, the real growth rate during the 1981–1997 period, on the average, was 5.8%. At the same time, Guangdong also earned the world's attention with her accelerated economic growth via merchandize export-led growth by the continuous influx of inward FDI (Vogel, 1989).

The outward investment activities from HK to Guangdong during the 1980–1990 period can be easily explained by low input costs and advantage of early economic opening of Guangdong province. However, the successful experience during the following decade of 1990s would find difficulties to rely on the same explanation given the soaring input costs in Pearl River Delta (PRD) than other newly opened regions and more favorable FDI policies and implementations in other coastal areas and inland provinces in China.

Despite of the vigorous competitions from other regions in China, Guangdong is still the largest recipient of inward FDI in China to attain profound record in sustained economic growth. HK's share declined from 95% ($0.6 billion) of all inward FDI to Guangdong in 1986 to around 60% ($7.3 billion) in 1999. At the same time, Guangdong remained the top ranked host location to accommodate HK outward direct investment. By the end of 1998, 53% of HK's total outward direct investment went out of China of which 65% was hosted by Guangdong (HK Government FDI Survey, 1999). It is highly interesting to explore why Guangdong has been able to continuously attract and mobilize the largest share of FDI flows