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Capital or knowhow: The role of foreign multinationals in Sino-foreign joint ventures

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A B S T R A C T

China's success in attracting foreign direct investment has been cast in doubt as mainly a transfer of capital, not knowhow, because its financial system is incapable of allocating domestic savings and hard-earned foreign reserves to domestic enterprises. To shed light on this debate, we examine the determinants of equity sharing in Sino-foreign joint ventures with the premise that the roles of foreign direct investment (in transferring capital or knowhow) should be reflected in equity sharing between multinational firms and local firms. Our empirical analysis offers strong evidence for foreign direct investment as a transfer of knowhow, but limited support for foreign direct investment as a transfer of capital, which points to the need for further reform in China's financial system.

1. Introduction

China's transition from a centrally planned economy to a market economy in the last thirty years has been anchored on two policies: opening its door to foreign trade and investment (the "open-door" policy or *Kaifang in Chinese*) and reforming its state-owned enterprises (the "reform" policy or *Gaige in Chinese*). Between 1979 and 2005, China had more than US $634.5 billion realized foreign direct investment or FDI involving over 552,000 projects (China Statistical Yearbook, 2006). China was the second largest exporter and third largest importer in the world in 2007 (The World Factbook, 2007). On reforming its state-owned enterprises, however, China has taken a gradual and selective approach (e.g., Bai, Lu, & Tao, 2006a, 2009; Bai, Li, Tao, & Wang, 2000; Cao, Qian, & Weingast, 1999), with state ownership still accounting for 35% of China's GDP (CAI JING Magazine, 2007). Thus, compared with the reform policy, the open-door policy is more dramatic in scale and scope and arguably more instrumental in China's transition toward a market economy.

In view of China's impressive record in opening to foreign trade and investment, attention has been shifted toward the roles played by FDI in China's economic transition.[3] On one extreme is the benign view that FDI supplied by multinationals has brought China much-

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[3] The impacts of China's success in foreign trade are also worth investigating, as evidenced by the extensive debates on the proper value of the Chinese currency. Nonetheless, China's opening to foreign investment is very much linked to its subsequent success in foreign trade. In fact, around 70% of China's exports have been made by multinationals operating China, and the exporting behavior of these foreign multinationals is rather different from that of China's domestic firms (Lu, Lu, & Tao, 2010). Thus, the focus of this paper is on the roles of foreign direct investment in China, which will shed light on China's foreign trade.

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needed knowhow, a term we broadly define to include advanced technologies, modern management practices, and access to international markets. On the other extreme is the critical view that China's huge influx of FDI is in fact a reflection of its inefficient and discriminating financial system, under which less privileged domestic enterprises, especially China's private enterprises, face difficulties in access to external finance and are forced to give away their equity shares to foreign multinationals for much-needed capital (Huang, 2003). Debate on the roles of FDI in China's economic transition has become increasingly contentious, given that China has maintained a huge trade surplus invested in low-yield U.S. treasury bonds yet continued to rely on FDI for economic development.

In this paper, we attempt to shed light on the debate by empirically investigating what foreign multinationals bring to their local partners in the Sino-foreign joint ventures.[4] Our approach is based on the premise that the roles of FDI (in transferring capital or knowhow) should be reflected in equity sharing between multinational firms and local firms. We first develop hypotheses on the determinants of equity sharing in joint ventures for the role of FDI as a transfer of knowhow and the corresponding ones for the role of FDI as a transfer of capital. We then test the hypotheses using a data set covers 5,217 international joint ventures in 29 manufacturing industries between local firms of 28 China's regions[5] and multinational firms of 51 countries.

The need for capital varies across industries and projects, and so does the capital–labor endowment across source countries of multinationals, which allows us to explore the role of FDI in transfer of capital. Meanwhile, the relative contributions of local firms and foreign multinationals vary across industries, China's regions, and source countries of multinationals, which afford us an opportunity to test the role of FDI in transferring knowhow as well. We find strong evidence for FDI as a transfer of knowhow but limited support for FDI as a transfer of capital. The support for the benign view of FDI (as a transfer of knowhow) is reassuring, but results found related to the negative view of FDI (as a transfer of capital) point to the need for further reform in China's financial system.

This paper builds upon a large literature on the determinants of equity sharing in joint ventures, such as Gomes-Casseres (1989), Nakamura and Xie (1998), Asiedu and Esfahani (2001), and Barbosa and Louri (2002). We contribute to this literature by developing determinants of equity sharing that reflect local partners' abilities in operating in less perfect business environments. Specifically, we find that local partners have more contributions and hence obtain higher equity shares in regions/industries with a higher degree of state ownership, and in regions with more serious bureaucracy. More importantly, in an important departure from the existing literature, we emphasize on differentiating the role of FDI as a transfer of knowhow from that as a transfer of capital, which has implications for both government policies and multinational strategies.

The plan of the paper is as follows. In Section 2, we develop testable hypotheses regarding the role of FDI as a transfer of knowhow and those for FDI as a transfer of capital. Data and variables are described in Section 3, and econometric analysis is presented in Section 4. The paper concludes with Section 5.

2. Hypotheses

The equity joint venture is arguably the most often used organization for multinationals when they make direct investment in developing and transition economies.[6] This is because success in foreign direct investment often requires inputs from local firms as well as those from multinationals. The inputs from multinationals could be advanced technologies, latest management practices, and access to international markets (collectively referred to as "knowhow" in this study), or access to capita (referred to as "capital" in this study). Meanwhile, local firms know how to operate in less-than-perfect business environment and organize production for multinationals, and they also have expertise of marketing the products and services of the multinationals in local markets. The equity joint venture is an ideal organizational structure for FDI, because the equity sharing can be adjusted to motivate both foreign multinationals and local firms for the purpose of ensuring the success of the joint projects. Thus, in developing hypotheses to test the roles of foreign multinationals in Sino-foreign joint ventures, we basically focus on the determinants of equity sharing when foreign multinationals provide knowhow and those when foreign multinationals provide access to capital. In other words, the roles of multinationals are captured by the equity sharing in their equity joint ventures with the local partners.

2.1. FDI as a transfer of knowhow

By drawing insights from the team production theory and the theory of the firm, we can develop hypotheses regarding the determinants of equity sharing in equity joint ventures where foreign multinationals bring knowhow and local partners provide complementary skills. The team production theory developed by Holmstrom (1982) captures some essential features of cooperation between foreign multinationals and local partners, and in this theory, optimal revenue sharing is determined by the relative importance of efforts by different team members.

[4] There is also a large literature examining the impacts of FDI on domestic firms in the same industries. Most existing studies in this direction have often failed to find any significant impacts of FDI on domestic firms in the same industries, or even worse uncovered some negative impacts of FDI. Studies reporting negative impacts of horizontal FDI on domestic firms include Haddad and Harrison (1993) for Morocco, Aitken and Harrison (1999) for Venezuela, Djankov and Hoekman (2000) for the Czech Republic, Konings (2001) for Bulgaria, Romania, and Poland, and Hu and Jefferson (2002) for China. Our paper differs from this literature by focusing on what foreign multinationals bring to their local partners in the Sino-foreign joint ventures, or intra-firm impacts of FDI.

[5] Region here refers to 22 provinces, 4 province-level municipalities, and 5 minority autonomous regions in China.

[6] 183,015 among 304,821 approved FDI projects between 1979 and 1997 were equity joint ventures; in the same period, 51% of the total value of FDI was invested in equity joint ventures (according to the statistics provided by China's Ministry of Foreign Trade and Economic Cooperation). It should be pointed out, however, that joint ventures are less often used relative to wholly owned subsidiaries in more recent years of China's economic reform. Presumably it is due to the decreasing importance of contributions made by the local partners, as the business environment in China has become more transparent along with its economic reform and also because foreign multinationals have learnt how to do business in China after years of joint venturing with the local partners.