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Foreign direct investment and export spillovers: Evidence from Vietnam

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ABSTRACT

The existing IB literature suggests that the presence of foreign firms in a country can benefit domestic firms through the formation of inter-firm linkages. These linkages can take various forms. By making use of firm level data from Vietnam's manufacturing sector, this paper examines the impact of horizontal and vertical (backward and forward) linkages between domestic and foreign firms on (i) the decision of domestic firms to export and (ii) the export share of domestic firms. This paper considers only transactional linkages. The empirical analysis is based on Heckman's two-step estimator in selection models. It is shown that the presence of foreign firms in Vietnam, through horizontal and forward linkages, significantly affects the decision of domestic firms to export as well as their export share. This result continues to hold when we take into account factors such as the (a) level of technology of domestic firms, (b) ownership structure of domestic firms, (c) orientation of foreign firms and (d) geographical proximity to foreign firms.

1. Introduction

Foreign direct investment (FDI) affects the economic performance of host countries through direct as well as indirect channels. The indirect effect (also known as the spillover effect) of FDI arises from a number of sources including the linkages that are formed between domestic and foreign firms and increased competition in the domestic market that leads to better allocation of resources. The linkages between domestic and foreign firms can also facilitate technology and knowledge transfer. Recent studies (for example, Blomström & Kokko, 2003; Görg & Greenaway, 2004; Greenaway and Kneller, 2004; Kneller & Pisu, 2007; Wagner, 2007; Sun, 2009) have suggested that linkages between domestic and foreign firms can also affect the export performance of domestic firms, which provides yet another explanation for increased competition for FDI among host country governments.[1]

While a large number of existing studies (for example Blomström, 1986; Blomström & Kokko, 2001; Liu & Wang, 2003; Görg & Hijzen, 2004; Wei & Liu, 2006; Duanmu & Fai, 2007; Beugelsdijk, Smeets, & Zwinkles, 2008; Grima, Görg, & Pisu, 2008; Liu, 2008; Suyanto, Salim, & Bloch, 2009; Barbosa & Eiriz, 2009; and Blalock & Simon, 2009) have considered the impact of FDI and FDI-linked spillovers on productivity and technology transfer, relatively few empirical studies have considered the impact of FDI-related industrial linkages on the export performance of host countries. Furthermore, drawing on the early theoretical work of Rodriguez-Clare (1996), it is clear that FDI can also affect the export activities of domestic firms in upstream and downstream industries through vertical linkages, yet the studies that have considered the impact of FDI-

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[1] According to UNCTAD, in 1995 (2002), 64 (70) countries introduced changes in their investment regimes, with the total number of regulatory changes being 112 (248). Among them, 106 (235) were more favourable to FDI, accounting for approximately 95 (95)% of the total. For an excellent discussion of the determinants of FDI, see Buckley et al. (2007).

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related industrial linkages on export performance (also known as export spillovers) have mainly focused on horizontal linkages.[2] Some empirical studies (for example Kokko, Zejan, & Tasini, 2001; Alvarez & López, 2008) have found the impact of horizontal linkages on export performance to be positive and statistically significant which suggests that the presence of foreign firms promotes the export activities of domestic firms in the same sector. On the other hand, some studies (for example Aitken & Harrison, 1999; Djankov & Hoekman, 2000; Lutz, Talavera, & Park, 2003; Greenaway, Sousa, & Wakelin, 2004) have found the impact on export performance to be zero or negative. In other words, the empirical evidence is mixed, which is not surprising since the impact of FDI related industrial linkages on export performance depends on the characteristics of domestic firms, industries and indeed the host country. Some of these characteristics are categorised as the absorptive capacity which includes variables such as the size of a country's stock of human capital, the level of its financial market development and the technology gap between domestic and foreign firms.

Based on the existing studies, it can be argued that the presence of foreign firms in a country does not always increase the probability of exporting or the export performance of domestic firms (for example, see Wagner, 2007; Alvarez & López, 2008 and the references therein). Alvarez and López (2008) have argued that the presence of sunk-entry costs to export markets tends to diminish the overall size of the export spillover effect. In other words, the net effect on export performance will be positive only if the export spillover effects can more than compensate the sunk-entry cost. In a recent study Harris and Li (2009) have argued that absorptive capacity can lower the barriers to export market entry. The presence of mixed evidence warrants further research. The impact of FDI in any host country varies from industry to industry and hence results presented for one country cannot be applied to another.

This paper focuses on Vietnam, a country that has attracted significant FDI since the late 1980s. At the end of the War in Vietnam, the country had two economic systems, a centrally planned system in the north and a market based system in the south. However, after national reunification, from 1975 to 1989, Vietnam remained a centrally planned economy. The introduction of the reform policy known as *Doi Moi* in 1986 marked the beginning of the opening up of the Vietnamese economy which resulted in a significant inflow of foreign investment. FDI inflows have played an important role in the rapid economic growth experienced by Vietnam. Vietnam is also an interesting case to consider because FDI in Vietnam is mainly concentrated in designated key economic regions while remote regions are unable to attract significant FDI. This factor influences the magnitude of horizontal as well as vertical linkages between domestic and foreign firms in different regions. Vietnam promulgated the Law of Foreign Investment in 1987. This law, which has been subsequently amended, is aimed at (a) increasing FDI inflows into Vietnam, (b) promoting technology transfer through FDI inflows and (c) enhancing export activities of domestic firms. Investigations of the effect of FDI on the Vietnamese economy to date are scarce, mainly due to data limitations. While some existing studies have considered the impact of FDI on productivity, economic growth and exports, none of the available studies has considered the impact of FDI-related industrial linkages on export spillovers in Vietnam.[3] An analysis of the indirect effect of FDI on Vietnam's export performance allows one to assess the effectiveness of government policies.

This paper examines the impact of horizontal and vertical linkages between domestic and foreign firms on (i) the decision of domestic firms to export and (b) the export share of domestic firms. The empirical analysis, which is conducted by means of Heckman's two-step estimator in selection models, reveals that the presence of foreign firms in Vietnam's manufacturing sector has a strong positive effect on domestic manufacturing firms' decision to export and their export share, mainly through horizontal and forward linkages. We also consider the impact on the decision to export and export share after taking into account factors such as the differences in technology level of domestic firms (i.e., low versus medium and high technology firms), the ownership structure of domestic firms (i.e., private versus state ownership), whether or not foreign firms are export-oriented and the geographical proximity of domestic firms to foreign firms.

The rest of this paper is organised as follows. Section 2 provides a theoretical perspective on FDI and FDI-generated linkages between domestic and foreign firms and the impact of these linkages on economic growth in host countries. Section 3 contains a review of some empirical studies that have considered the impact of transactional linkages between domestic and foreign firms on the export performance of domestic firms in host countries. Sections 4 and 5, respectively, contain data description and empirical analysis and Section 6 contains concluding remarks.

2. MNC presence and economic growth in host economies

A number of existing international business and international economics studies have considered the impact of FDI and FDI-linked spillovers on host country GDP and the output of domestic firms. These studies include both theoretical and empirical studies. Empirical investigation can contribute to the development of new theories and/or refinement of the existing theories. Buckley (2010), among others, has highlighted the importance of the strong interaction between theory development and empirical investigation. Buckley also argues that international business can be viewed as the interaction of

[2] Rodriguez-Clare (1996) is among the first theoretical studies to consider FDI-linked spillovers through both horizontal and vertical linkages. A review of more recent theoretical studies, including the seminal work of Melitz (2003), can be found in Barba-Navaretti and Venables (2004).

[3] A review of most available studies that consider the impact of FDI on productivity and employment in Vietnam can be found in Nguyen et al. (2008). By making use of a panel dataset that covers 61 provinces of Vietnam from 1996 to 2005, Anwar and Nguyen (2010) have examined the link between foreign direct investment and economic growth in Vietnam. This study, which is based on a simultaneous equations model, reveals that in overall terms a mutually reinforcing two-way linkage between FDI and economic growth exists in Vietnam.