

Chapter 3

Foreign Direct Investment and Technology Spillovers in the Turkish Manufacturing Industry

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ABSTRACT

Technology spillovers from foreign to local firms in emerging economies are considered to be the most important channel through which Foreign Direct Investment (FDI) influences the host economy. Empirical evidence about the existence, magnitude, and direction of FDI-related spillovers in these countries is contradictory, pointing to the necessity of conducting more econometric studies using firm-level data. The authors conduct an econometric analysis to assess the impact of FDI-related horizontal technology spillovers on output growth of local firms in the Turkish manufacturing industry over 2003-2006. When a broad definition of foreign ownership is adopted, their findings suggest that horizontal spillovers occur from foreign to local firms in the sector of activity. Export-oriented firms do not benefit from these spillovers in contrast to firms producing mainly for the local market. However, when foreign ownership is defined according to whether the minority or majority of capital is detained by the foreign partner, horizontal spillovers seem to originate from foreign firms with majority or full foreign ownership, while no such effect is associated with minority-owned foreign firms.

1. INTRODUCTION

Since the 1980s, Foreign Direct Investment (FDI) flows have increased significantly worldwide and at the same time, the share of these flows going into developing countries has followed an upward

trend. By the year 2008, developing countries constituted the destination of the one third of total FDI flows and the amount involved reached 600 billion US dollars. A small yet increasing part of these FDI flows towards developing countries also led multinational firms to conduct R&D activities therein (UNCTAD, 2005).

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FDI may affect the economy of a host country through its impact on employment creation, foreign exchange earnings, capital accumulation, and by the usage of more advanced equipment and technology. However, it has been pointed out recently that the most important channel through which FDI may impact on developing economies is situated on the technology side. Indeed, the major contribution of FDI to a developing economy consists in fostering technology transfer by bringing and diffusing new technologies, knowledge, and skills to the recipient country. The transfer of the intangible from foreign to local firms is referred to as “FDI-based technology or knowledge spillovers.” These spillovers can be horizontal (intra-industry) or vertical (inter-industry) spillovers depending whether they are disseminated within or outside the sector of activity of foreign firms that trigger these spillovers.

After pursuing inward-oriented economic policies based on an import-substitution development strategy implemented through Five-Year Development Plans since the 1960s, Turkey switched to outward-oriented policies after a severe balance of payment crisis in the early 1980s. These policies consisted mainly in removing gradually import quotas and custom duties, attracting foreign investment, promoting exports, minimizing state intervention, and liberalizing international capital flows, which occurred in 1989. The signature of a Customs Union agreement with the European Union in 1995 contributed to the further liberalization of its economy.

The first law on foreign capital was enacted in 1954. Although this law was initiated with the intention of providing a more attractive environment for foreign investors, due to the restrictive measures it entailed, it served the initial purpose only partially¹. From 1950 to 1980 the cumulative authorized FDI had reached only \$229 million (Öniş, 1994). Other reasons that have contributed to the relatively poor FDI performance in Turkey are red tape (Erdilek, 1982) and more generally the negative attitude of policy makers operating

under an import substitution industrialization strategy. After the government initiated a stabilization program in 1980 that paved the way to an open economy, the legislative background was also reorganized to eliminate favoritism among foreign investors, local content requirements, minimum export requirements, and restrictions on transfer of capital and profits (Erdilek, 1986; Akpınar, 2001).

In addition to changes in the regulatory framework, privatization of state economic enterprises, liberalization of the financial system, elimination of restrictions on foreign exchange, establishment of a stock exchange and heavy investment in telecommunications technology all contributed to the development of a favorable environment for FDI throughout the 1980s. However, in the following decade, two major economic crises in 1994 and 1999 as well as reliance on short-term capital flows resulted in a relatively poor FDI performance. When we look at the 2000s, we see a much more favorable environment for foreign investors with a strongly regulated financial system, a low inflation rate, and the establishment of a Coordination Council for the Improvement of the Investment Climate. Following the enactment of the new foreign capital law in June 2003, minimum capital requirements, and permits were eliminated; the ownership of property by foreigners without any restrictions, the right to international arbitration and employment of expatriates were granted. Partly as a result of these measures a sharp rise occurred in FDI from 0.71% of GDP in 2003 to 5% in 2005 which was followed by a fall after 2006.

Note that efforts to open up the Turkish economy were not enough initially to attract more FDI. Until the year 2000, annual FDI flows to Turkey were rather low (below US\$ 1 billion) compared to other emerging economies (UNCTAD, 2005). Total cumulative net FDI inflows were nearly US\$9.7 billion between 1974 and 1999, corresponding to an annual average of US\$370 million. From 2000 onwards there has been an important

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