Chapter 10
Skill and Foreign Firm Premium: The Role of Technology Gap and Labor Cost

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ABSTRACT

In this chapter, the authors construct a model that allows for joint discussion of foreign firm and skill premium in wages, and their evolution upon increased foreign firm activities. They allow for (1) dynamic interaction between the domestic and foreign firms in the labor market, via a two-sided search model, (2) technology differentials between domestic and foreign firms, and (3) varying cost of doing business between domestic and foreign firms. Analytical and numerical results point to the importance of modeling all three features. Both the level and the changes in the relative wages depend on the productivity differential (technology gap) and the job creation costs.

1. INTRODUCTION

Multinational Enterprises (MNEs) have become one of the key players in extensively integrated economies since they have gained an important ground in transmitting new technologies, managerial techniques, skills, and capital across borders[1]. In this context, to benefit from new technology, knowledge and market opportunities, domestic policy makers (as well as firms) encourage foreign firms to establish local subsidiaries[2]. Alongside their effect on local firm productivity through technology transfers, investments by foreign firms have important implications for local labor market conditions. According to the World Investment Report (UNCTAD, 2007) around 3% of worldwide employees work for foreign affiliates of MNEs, representing a threefold increase from 1990 to 2006 in the absolute number of these workers. The same report further emphasizes the importance of understanding the impact of increased foreign firm presence which is evident in the increasing

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employment opportunities by foreign firms, where the share of employment in foreign affiliates in total employment ranges from around 1% in Japan to as high as 51% in Ireland[3].

The effects of increased foreign firm presence is not limited to employment effects in the host country labor market, in fact two stylized facts stand out in the data regarding the wage effects of MNE activities. First, a change in the structure of domestic production upon the entry of foreign firms alters the wage gap between skilled and unskilled workers (see Gopinath & Chen, 2003; Markusen & Venables, 1997, among others). Second, foreign firms tend to pay different wages than domestic firms (see Aitken, et al., 1996; Feenstra & Hanson, 1996; Lipsey & Sjöholm, 2004, among others). The literature is dominated by theoretical studies that explore the first issue regarding the relative wages between the skilled and unskilled labor, i.e. the *skill premium*, and by empirical studies exploring the second issue regarding the relative wages paid by foreign and domestic firms, i.e. the *foreign firm premium*.

The evidence detailed in these studies regarding the evolution of both the skill and foreign firm premium is quite mixed across host countries. Regarding the skill premium's evolution evidence suggests an upward move for several host countries, but with ample countries experiencing the exact opposite trend. Looking into the wage effects of international economic integration, studies have shown mixed evidence regarding the issue[4]. A similar mixed pattern is suggested in studies of the relative wages paid by foreign and domestic firms. While studies by Driffield and Girma (2003), Conyon *et al*. (2002), Martins (2004), and Aitken *et al*. (1996) document higher wages being paid by foreign firms, Lipsey and Sjöholm (2004), Almeida (2007), Barry *et al*. (2005), and Girma *et al*. (2001) note that foreign firms do not always pay more than local firms. None of the existing studies look into the *joint* determination of the skill and foreign firm premia. This chapter fills this gap in the literature, building a framework that explains the two observations synchronously and allowing for a detailed parametric identification of the absolute and relative wage implications of increased MNE activities in the host country. The below framework furthermore allows investigation of employment effects of MNE activities alongside their wage effects, which enriches the analysis.

Another important issue, alongside the lack of simultaneous discussion of the two-wage premia, is the mixed empirical and theoretical evidence regarding the evolution of both skill and foreign firm premia which raises the question of what factors contribute to this nonlinearity. The common theme in the theoretical models studying the skill premia effects of increased MNE activities is that the effects of Foreign Direct Investment (FDI) on relative wages in the source and the host countries depends on the characteristics of the investment and the conditions in the invested environment[5]. Studies on the second empirical observation, regarding the differential wages across domestic and foreign firms, resonates a similar *absorptive capacity*[6] story with differing foreign firm premium across developing countries. Such evidence can be interpreted as suggesting that the foreign firm premia also differs across host countries depending on the absorptive capacities, either of the local market or of the firm. The important message to be taken from this strand of the literature is that the *local conditions* as well as the *investment characteristics*, which we will lump in the term *absorptive capacities* matters in the determination of the wage effects of increased foreign presence[7].

The below framework incorporates two important dimensions of these absorptive capacities. First, taking cue from the existing studies that show the important role played by the technology gap in explaining wage effects of MNE activities the model includes productivity differential between domestic and foreign firms (see Glass & Saggi, 2002; Sayek & Sener, 2006). Inclusion of the technology gap across firms in the model captures