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Human capital and FDI: How does corruption affect the relationship?[☆]

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ABSTRACT

Can corruption affect the relationship between human capital and FDI for a host country? This paper explores the interactive impact of corruption and human capital on FDI. In particular, we investigate whether countries with higher or lower corruption levels benefit differently in terms of FDI inflow following an equal improvement in the level of human capital. Employing an extensive panel data and robust identification strategies, our results suggest that if the corruption score of a highly corrupt country becomes comparable to that of a low corruption country, FDI inflow will rise by almost 40 percent for an equivalent rise in human capital stock. The results remain robust for various measures of human capital.

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1. Introduction

An extensive literature focuses on the determinants of Foreign Direct Investment (FDI) and that has identified human capital to be a key variable in attracting FDI[1] to developing countries (see, Eicher and Kalaitzidakis, 1997; Blomström and Kokko, 2003a; Kar and Sinha, 2014 for a brief survey; etc.). At the same time, factors like corruption continue to hurt various economic attributes of a country (see, Al-Sadig, 2009; Smarzynska and Wei, 2002; etc.). While the literature documents both the beneficial impact of human capital and the harmful effects of corruption on FDI inflows, but such discussions appear in isolation. Therefore, the question of whether changes in the level of human capital affect FDI despite a certain degree of corruption in a country seems a crucial question to ask. In fact, the interactive impact of human capital and corruption in the context of FDI inflows has not been explored in this literature. Our paper seeks to understand whether a fall in the level of corruption makes human capital more productive in terms of its attractiveness to foreign direct investors. In the context of

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1 Several studies have confirmed the significant impact of FDI on economic growth (Tiwari and Mutascu, 2011; Shaikh, 2010, Faras and Ghali, 2009, Nair-Reichert and Weinhold, 2001, Asafu-Adjaye, 2000 to mention a few).

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developing countries, the answers to such questions seem particularly important in view of the complex coexistence of the rising stock of human capital and the substantial corruption that exists in various economic spheres.

With regard to the pattern of trade and capital movements across borders, it has been observed that the superior technology and extent of human capital stock in a host country are major determinants in attracting Multinational Corporations (MNCs) to (re)locate their production bases (viz. Borensztein et al., 1998). It has been argued previously in the literature that the spillover effect of human capital (Markusen and Trofimenko, 2009; Ritchie, 2002) is mainly associated with the advanced training of employees by MNCs and the dispersal of these employees towards other firms, many of which have local ownership. In terms of procedures, it seems that the source country's managerial and technological experts work with the MNCs to train the host country workers regarding innovative marketing procedures, production organization, inventory management and an array of other production related aspects. Other than gaining higher real wages, local workers also become more productive. MNC related knowledge spillovers are captured not only by those directly linked with the MNCs but also other suppliers, distribution channels, quality control institutions, etc. Several significant contributions by Blomström and Persson (1983), Blomström (1986), Blomström et al. (1994), Blomström et al. (2000) and Blomström and Kokko (2003b) have reiterated the fact that FDI inflows afford complex interactions with human capital, whereby the once widely anticipated technology and human capital spillover effects are neither automatic nor instantaneous.[2] Furthermore, the relationship is likely to be non-linear and bi-causal. Technology-intensive FDI may only be attracted to a country offering a large stock of skilled workers. However, the micro-foundations of such interactions are rather limited (Markusen and Trofimenko, 2009). In addition, estimates of change in human capital in the host country are mostly a comparison of the *levels* in the pre- and post-FDI regimes rather than the *rate* of change. In this context, the interaction between FDI and human capital culminating in higher levels of growth has been quite intensively discussed in Mallick and Moore (2008).

Indeed, the relationship between FDI and human capital is quite complex and has the potential to generate ambiguity for countries that have varying levels of corruption. As such, an extensive literature has already explored the relationship between corruption and economic growth (Mironov, 2005; Mo, 2001; Mauro, 1995 to mention a few). For instance, in a second-best world with distortions caused by ill-functioning institutions, corruption can compensate bad governance and attract more FDI (Shleifer and Vishny, 1993; Bardhan, 1997; Kaufmann and Wei, 1999; Aidt, 2003; Meon and Sekkat, 2005; Bellos and Subasat, 2012, etc.).[3] However, it is quite well-known that corruption reduces efficiency by generating greater rent-seeking behaviour and misallocating talent. Investment suffers due to higher transaction costs and uncertainty (Acemoglu and Verdier, 1998; Murphy and Vishny, 1993; Murphy, Sleifer and Vishny, 1991). Corruption can deter FDI by increasing direct costs (bribery), by creating artificial bottlenecks, and by weakening transparency and protection of property rights. It also hurts FDI by increasing the risk of breached contracts, by reducing the quality of government services and infrastructure, by creating an uneven playing field in favour of the local firms ('local capture'), and by distorting prices of public utilities or trade protection (Resmini, 2000; Hellman et al., 2002; Bevan and estrin, 2004; and Caetano and Caleiro, 2005).

Relatively fewer studies have investigated the impact of corruption on human capital. In this context, an important theoretical paper by Ehrlich and Lui (1999) explores the negative impact of corruption on human capital accumulation. The authors suggest that in the presence of corruption, more time has to be invested in political capital in order to improve the bureaucratic power of individuals rather than spending the same time and effort on making the education sector more productive. Based on this argument, greater corruption levels of countries should make human capital ineffective, thereby tempering the beneficial impact of human capital on FDI. Thus, other than creating a direct impediment to FDI, corruption can also make FDI less beneficial via the negative effect on human capital. To sum up, pervasive corruption is very likely to inhibit the productive impact of human capital on FDI.

Our contribution to the literature investigates the interactive impact of human capital and corruption on FDI inflows, synthesizing the two strands of literature discussed above. We hypothesize that the impact of human capital on FDI inflows is negative in the presence of corruption. Corruption raises transaction costs; it also raises the need for investing in political capital, and diverts resources to unproductive investments. All these factors can make human capital less beneficial in the context of FDI.

Our empirical analysis offers some surprising results. Using an extensive panel of 107 countries over the period 1984 to 2009, we show that human capital has a non-negative impact on FDI inflows even for highly corrupt countries. We find the impact to be positive and significant but small. However, there is an unambiguous benefit to reducing corruption. *Less* corrupt countries benefit *more* from an increase in human capital accumulation. In terms of economic significance, we show that if for a highly corrupt country (e.g., Lebanon) the corruption score becomes comparable to that of a relatively less corrupt country (e.g., Chile, which is also in OECD), FDI inflows will rise by almost 40% for an equal rise in the stock of human capital. We test our results with various alternative measures of human capital.

The data and empirical methodology are described in Sections 2 and 3, respectively. In Section 4, we present the benchmark results and robustness analysis is presented in Section 5. Section 6 concludes.

2 Also see Kathuria (2000), Dunning (1988), Coughlinand Segev (2000) and Noorbakhsh et al. (2001).

3 This view suggests that corruption can reduce the problem of red-tape i.e. sluggish administration, tedious and restrictive bureaucratic regulations and, thus, can compensate for bad governance. Furthermore, García-Canal and Guillén (2008) show that, on some occasions, certain MNCs display a preferential bias towards countries whose governments may exercise discretionary power or have high corruption levels, which would allow the MNCs to obtain competitive advantages over their competitors by negotiating better rent seeking deals.