Foreign direct investment and host country policies: A rationale for using ownership restrictions

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ABSTRACT

This paper examines host governments' motivation for restricting ownership shares of multinational firms (MNFs) in foreign direct investment (FDI) projects. An MNF with a productivity advantage is willing to invest in a host country. The host government wants to capture the MNF's surplus yet cannot observe it due to the MNF's private information about its firm-specific advantage. In contrast, a joint venture (JV) partner might observe this surplus depending on its ownership share. The host government can alleviate its informational constraints by using ownership restrictions to force a JV. This calls into question the wisdom of calls for 'liberalizing' FDI flows by the wholesale elimination of domestic JV requirements. We show that the optimal mechanism involves ownership restrictions that decrease as the size of the MNF's firm-specific advantage increases.

1. Introduction

Foreign Direct Investment (FDI) has been one of the most widespread forms of international economic activity in recent years. In 1980, FDI stock abroad accounted for only 5% of world GDP whereas in 1998, this number almost tripled to 14% (OECD, 2001). Notwithstanding its many advantages (e.g., technology spillovers, international trade integration, etc.), restrictions on FDI are fairly common. The most obvious one is foreign ownership restriction. For instance, many emerging countries like India, Indonesia, Brazil, Mexico, Korea, Turkey, the Philippines, Thailand and most centrally planned economies impose restrictions on foreign equity participation.[1] Likewise, many industrialized countries such as Finland, France, Norway, Sweden, Switzerland and even the U.S. and Canada have also developed some kind of indigenisation policy.[2]

The principal characteristic of FDI is the control over operations exercised by the investor firms (multinationals). Ownership of equity enables multinationals to exercise this control. According to the property rights theory (Grossman and Hart, 1986; Hart and Moore, 1990; Hart, 1995), ownership rights affect ex-ante investment decisions through their influence on the distribution of ex-post surplus. Therefore, forcefully changing the ownership structure of a firm might distort ex-ante investment which can decrease the overall surplus of a project. Then, it is not clear why host governments insist on using equity restrictions when other potentially more efficient policy instruments (e.g., non-distortionary taxation and redistribution of rents) are available. In this study, we develop a model that explains the common use of ownership restrictions by host governments despite their inefficiencies.[3] The purpose of the ownership restriction policy is not to limit access to foreign firms but to capture the rents from the MNF's activity.[4]

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[1] Some countries have recently liberalized their equity restrictions. Especially, Turkey has undertaken the most significant liberalization of equity restrictions among OECD countries (Golub and Koyama, 2006).

[2] Indigenisation is defined by Katrak (1983) as the requirement that the host country imposes on an investor to share ownership of an affiliate with residents in the host country. Many countries have a policy that allows FDI only through ventures with local firms (Golub, 2003; OECD, 2007). Imposing a joint venture is similar to ownership restrictions in that they require the MNF to offer a minimum profit share to the domestic partner.

[3] We restrict our attention solely to economic factors to keep the analysis well focused. In general, these restrictions are designed to achieve a range of economic, political and social objectives. Likewise, some restrictions are imposed to address national security or national sovereignty concerns.

[4] Host governments' objective in capturing rents may seem to contradict with subsidies that are offered to MNFs in the form of tax holidays and infrastructure provision. However, these subsidies predominantly pay for the sunk investments whose quasi-rents are subject to subsequent seizure by host governments as shown in the literature of time inconsistency problems in FDI policies (Stopford and Strange, 1991; Doyle and van Wijnbergen, 1994; Schnitzer, 1999).

The model combines adverse selection with moral hazard. The novel feature of our approach is the watchdog role played by the domestic joint venture partner, which in turn induces truthful revelation by the MNF.

As Caves (1982) noted, for FDI to occur, the MNF must possess a firm-specific advantage (e.g., expertise, managerial and organizational practices and trademarked brands) which it can exploit more profitably through internalization than through licensing and the host country must have a production advantage for the relevant market. Following these arguments, we assume that there is an advantageous production opportunity in the host country. There is a pool of local firms (LFs) each of which is capable of undertaking this project. There is also an MNF that can carry out the project via FDI. It is reasonable to assume that the MNF has a firm-specific advantage over the LFs such that it can create a higher surplus by making some effort that is both costly to exert and unobservable to others. Given this, it is more efficient for the MNF than LFs to produce in the host market.[5]

The host government wants to maximize its welfare which consists of the weighted average of its tax revenue and any possible profit of the local firm.[6] There is an asymmetric information problem between the host government and the MNF. The host government cannot not observe the precise amount of the extra surplus generated by the MNF (since the tax sheltering activity of the MNF renders cash flows opaque for the host government taxation).[7,8] The magnitude of this additional surplus depends on the effort level chosen by the MNF and the size of the firm-specific advantage the MNF has. If these were commonly known, the host government would simply let the MNF produce and tax the resulting profit. Under incomplete information, such a policy may result in ex-post inefficiency, since the host government's taxation can force the MNF to stay out of the host market. In this case, an alternative policy is to force the MNF to form a JV with a particular local firm chosen by the host government (*ownership restriction*). It is assumed that unlike the host government, the local JV partner might observe the resulting extra surplus depending on its degree of ownership (since it can monitor cash flows into the JV firm by using its ownership control rights).[9]

There are two opposing effects of using the ownership restriction policy. On the one hand, it causes the MNF to reduce its effort thereby leading the resulting surplus to decrease (hold-up problem). On the other hand, it helps the host government to ease its information problem. The host government takes this trade-off into account and determines its policy accordingly. In particular, the optimal mechanism dictates that more productive multinationals should be granted higher ownership shares but should face higher taxes. We show that the ownership restriction policy can mitigate the ex-post inefficiency resulting from asymmetric information.

Our paper is related to several earlier studies. In this literature, one can distinguish two mainstream approaches. In the first one, there are models that analyze foreign direct investment in a symmetric information framework.[10] On the contrary, models in the second approach use asymmetric information structure. Our paper belongs to this latter group.

In this second group, Stoughton and Talmor (1994) use a mechanism design approach to model the game between the parent firm and its subsidiary. In their model, the host country would set the optimal combination of tax and indigenisation rates (which appear multiplicatively) by trading off its share in the cash flows with the output considerations of the multinational. Our model is different as we do not consider parent-subsidiary relations but focus on the direct relation between an MNF and a host government. We also do not consider a game in which there is a chance for the MNF to switch funds from one place to another due to the differential tax rates in different countries. The closest paper to ours is by Dasgupta and Sengupta (1995). They analyze the optimal regulation of MNFs by a host government interested in maximizing tax revenues when the MNF has private information about its benefits of controlling the firm. In their model, this control is independent of ownership shares. Given these assumptions, the authors determine the optimal ownership restrictions. Our paper is closely related to their paper but differs in the following. First, we extend their model by introducing moral hazard. Second, unlike their paper, the magnitude of the private benefit is closely related with the MNF's ownership shares. Third, there is an asymmetric information problem not only between the MNF and the host government, but also between the JV partners, with the latter being less severe. Finally, in our model the local JV partner plays a watchdog role and this makes truthful revelation by the MNF possible in the optimal mechanism. As a result, the motivation presented in this paper for using ownership restrictions is different than their paper. In addition to these papers, there are also papers that use asymmetric information framework to analyze the optimal regulation of multinationals without employing ownership restriction policy (Prusa, 1990; Gresik and Nelson, 1994; Bond and Gresik, 1996; Calzolari, 2001; Konrad and Lommerud, 2001).

The rest of the paper is organized as follows. In the next section, we describe the basic analytical framework. In Section 3, given the fact that some countries discontinue using ownership restrictions, we discuss possible reasons for the elimination of these restrictions. Section 4 concludes the analysis.

2. Model

We consider a host country which has an advantage for the production of a particular good. There is a pool of competitive local firms and an MNF that are willing to take advantage of this investment opportunity, whereas the overall surplus generated depends on who undertakes the project. Specifically, the MNF has a firm-specific advantage over local firms so that it can create a higher surplus than any other local firm. Hence, ceteris paribus, it is more efficient for the MNF to undertake the project. The surplus the MNF can generate consists of two parts. The first part, denoted by $\pi \geq 0$, depends on output and can be publicly observable. The second part is assumed to be independent of output, like brand name effect, experience, etc. and cannot be publicly observable. This assumption is similar to the control assumption in Dasgupta and Sengupta (1995). In that paper, control is assumed to be independent of output and unobservable to the host government. The latter part consists of two elements: firm-

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[5] There is some evidence that multinational firms are more productive than local firms (Helpman et al., 2004). In addition, for U.S. and Canada: Globerman et al. (1994) and Doms and Jensen (1998). For developing countries: Haddad and Harrison (1993), Blomström and Wolff (1994), Sjöholm (1999) and Kokko et al. (2001).

[6] It is assumed that the resulting product is sold to a third country in order to ignore consumer effects and keep the analysis simple and focused. Therefore, we consider export-oriented (efficiency-seeking) FDI.

[7] Firms take advantage of grey zones in reporting profits. Consider the following example. When a firm performs a renovation of an existing asset, it can report it either as an expense or as a new asset. If reported as an expense, it can be deducted from taxable income in the current period whereas if reported as a new asset then only a small portion (depreciated part) can be deducted. Therefore, by reporting it as an expense, it is possible that some parts of profit can be escaped from taxation. It is hard for an outside authority to assess whether it is really an expense or not.

[8] Alternatively, it is too costly for the host government to monitor cash flows by auditing the MNF.

[9] JV partners are active monitors in companies. Monitoring is enhanced due to the increased disclosure requirement among JV partners. For example, they have administrative controls such as appointing board of directors in proportion to equity holdings. This provides a direct communication link with senior management of the parent companies, facilitating superior monitoring of partner firms' activities (Kogut, 1988).

[10] See, among others, Katrak (1983), Falvey and Fried (1986), Asiedu and Esfahani (2001), Mukherjee (2003), Mattoo et al. (2004), Diaw (2004), Klimenko and Saggi (2007). A detailed review of these papers can be found in Karabay (2009).