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When is FDI a capital flow?

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ABSTRACT

In this paper we analyze the conditions under which a foreign direct investment (FDI) involves a net capital flow across countries. For this purpose, we investigate how multinational firms finance their foreign affiliates, globally or locally. We develop a contract theoretical model in which the financing structure is used to govern the incentives of managers. We find that the investment tends to be financed locally if managerial incentive problems are large. Thus, microeconomic governance problems may have macroeconomic implications for the net capital flow to host countries. Our results are consistent with survey data on German and Austrian investment flows of firms to Eastern Europe.

1. Introduction

Multinational firms considering how to finance their foreign affiliates face more options than purely national firms do because they can seek financing in the home country or in the host country. In the literature, there is some discussion on how this choice is affected by host country characteristics such as international tax differences and idiosyncratic political risk. But very little is known about the particular governance problems that arise in multinational firms and about how multinationals can structure their financing to overcome these problems.

In this paper, we develop a contract theoretical model of a multinational firm. In this model, the multinational investor has to choose how to finance the foreign affiliate, locally or globally. We find that the financing structure can be used to govern the incentives of the foreign affiliate's manager. In particular, we find that the investment tends to be financed locally if managerial incentive problems are large. Interestingly, our analysis suggests that microeconomic governance problems may have macroeconomic consequences for the net capital flow associated with FDI and hence for host countries interested in attracting foreign capital.

In our model we consider an investor who needs a manager to run the project. We identify two managerial incentive problems: the manager has to choose effort to increase the probability of success of the project, called the effort problem. Furthermore, the manager can hide the returns of the project, called the repayment problem. The investor can control the

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manager exercising two control rights: she can invest in a monitoring technology that allows to appropriate some share of the returns, and she can threaten to liquidate the firm in order to make the manager cooperate.

As we will show, the importance and effectiveness of these control rights depend on the location of the investment, on the one hand, and on the financing structure, on the other hand. The location, more precisely the distance between foreign affiliate and parent headquarters, affects the effectiveness of the monitoring technology and hence the severity of the repayment problem in distant affiliates. The financing choice, internal financing versus local bank credit, determines the allocation of the right to liquidate the firm. Depending on who holds this right, the effectiveness of the liquidation right differs. Thus, by choosing how and where to finance the investment, the investor can influence the effectiveness of the liquidation right.

We find that small bank credits can be used to reduce the effort problem, whereas large credits can be used to reduce the repayment problem. However, bank credits may involve higher capital cost relative to internal financing, so they are chosen only if the incentive problems are sufficiently large.

We derive a number of predictions how this should affect the decision how to finance the investment. These predictions are then confronted with our survey data on German and Austrian international investment projects. We find that projects are financed locally if the incentive problems are rather large. If instead the incentive problems are moderate, global financing is preferred.

Our findings on the microeconomic problems of corporate governance in multinational firms have interesting implications for the macroeconomic net capital flows between countries associated with foreign direct investments (FDI). Attracting FDI is a prime objective for policymakers all over the world, most notably in developing and transition countries. They expect that FDI brings additional capital to their countries. However, as Feldstein and Horioka (1980) have pointed out, this is not necessarily true. Frequently, FDI is financed in the host country, in which case there is no net movement of capital. This was already observed by economists like Kindleberger (1969), who challenged the early macroeonomic view of FDI as a capital flow that is driven by international differences in capital cost.[1] Indeed, for some time economists have been puzzled by the question that Lucas (1990) raised so pointedly, i.e. why there is so little capital flowing from rich to poor countries.

The modern microeconomic theories of multinational activities successfully explain FDI incorporating elements of industrial organization, new trade theory and transaction cost economics. However, they do not address the issue how multinational activities are financed. The contribution of our paper is to build a bridge between these two approaches towards FDI. We focus on the microeconomic governance problems that arise in multinational firms and show that they have implications for the decision how to finance the investment. In particular, we find that projects are financed locally if the incentive problems are rather large. If instead the incentive problems are moderate, global financing through headquarters is preferred, leading to a capital flow to the host country.

This paper is related to three strands of literature. For our model we draw on insights from the corporate finance literature and its incentive based explanations of capital structure. Closest in spirit to our paper is the paper by Gertner et al. (1994) that compares the costs and benefits of relying on internal capital versus external bank lending. In this model the disadvantage of internal financing is that the owner monitors more than a bank and that this reduces the manager's entrepreneurial incentives. Gertner et al. see the advantage of internal financing in that internal capital makes it easier to efficiently redeploy the assets that perform poorly. We follow their idea that managers do not like to be too closely controlled, but find that more controlling is preferable for the investor if the manager's incentives are not too important. Another related paper on the optimal capital structure of firms is Aghion and Bolton (1992). This paper captures the idea of debt as an asset transfer mechanism in case of underperformance. As we will see the threat of losing control over the investment project in case the credit is not repaid has a disciplining role in our model as well. We have explored the implications of managerial incentive problems for the organization of international capital and technology flows in the context of barter and countertrade in Marin and Schnitzer (1995, 2002).[2]

Our paper is also related to the rather small literature on the financing of multinational firms. The most prominent explanations offered by this literature are based on international tax differences (see e.g. Chowdry and Coval, 1998; Chowdry and Nanda, 1994). Desai et al. (2004) provide an empirical analysis of the capital structure of foreign affiliates of multinational enterprises. They find that affiliates rely more on internal financing from parents than on external financing if they are located in countries with underdeveloped credit markets and weak creditor protection. Hooper (2004) provides evidence from survey data on UK and US based multinationals and shows that companies investing in countries with high political risk have a greater preference for local sources of financing than international sources of financing. Kesternich and Schnitzer (2010) explore theoretically and empirically how multinational firms choose the capital structure of their foreign affiliates in response to different forms of political risk. Antras et al. (2009) examine how costly financial contracting and weak investor protection influence the cross-border financing and investment decisions of firms. They argue that the share of activity abroad financed by capital flows from the multinational parent will be decreasing in the quality of investor protections in host economies.

[1] Despite these problems, most empirical studies on FDI follow the capital flow approach that is driven by macroeconomic country characteristics. For a recent study in this vein see Albuquerque et al. (2005) who attempt to explain the dynamics of FDI flows in response to increased integration of capital markets. They distinguish global and local (country specific) factors and show that global factors have increased in importance over time.

[2] For another paper in this spirit see Habib and Johnson (1999).