

Financial Structure, Productivity and Risk of FDI

Jiarui Zhang¹ Lei Hou²

Countries with different financial structures vary in the performance of foreign direct investment (hereafter FDI), especially in volatility and locations. We develop a theory on how heterogeneous firms choose financing instrument between borrowing bank loans and issuing corporate bonds to finance FDI, and we investigate the determinants on the choices of external financing structure and FDI's performance of multinational firms. We establish an asymmetric information model where the hidden information is the productivity shock that happens when the firms begin FDI. As the delegated monitors of investors, banks are willing to spend resources to acquire information about the coming shock in FDI while bondholders are not motivated to do so as a result of free riding problem. Our model predicts that firms with higher productivity, hence with more resistance to bad shocks, are more likely to use corporate bonds whereas those firms with lower productivities resort to bank loans since banks, as better informed creditors compared to bondholders, help to reduce the uncertainty ex ante in FDI. On the other hand, the risk expectation in potential FDI host countries is a key determinant on firm's financing choice. Firms investing in more risky countries prefer bank finance to bond finance. In addition, altering the relative cost of bank finance and bond finance affects firm's financing choice and margins of FDI. For the intensive margin of FDI, lower financing cost, either in bank finance or in bond finance, leads to higher output in foreign market. Meanwhile, for the extensive margin of FDI, only the cost reduction in bank finance could induce more FDI entries. Putting the development of bank sector in the priority could promote less productive domestic firms growing into multinationals while the development of bond market benefit the incumbent multinational firms by saving the intermediary cost.

We test the theory with the panel data including 35 large FDI sourcing countries over 1985-2009. We construct an index to assess the risk of FDI for each sourcing country which is the weighted average risk by the share of FDI flows in different host countries. The index takes four categories of risk: economic, political, structural and credit access risk into account. We find that countries with higher aggregate productivity, less risky investment portfolio of locations, and relatively lower cost ratio of bond finance over bank finance, have higher ratio of bond finance over bank finance, which are consistent with the model's predictions.

This paper contributes to the emerging literatures on finance and firms' internationalization by setting up a link between financial structure and firms' FDI behaviors, in addition to stressing the impact of availability of financial resources on firms' export or FDI activities. It also adds new elements in existing capital structure literature by proposing productivity as a criterion to segment firms and deriving cutoffs in continuous case.

¹ Macro Seminar, Department of Economics, University of Munich, Germany. Research Interest: Monetary Policy, Real Business Cycles, Corporate Financial Structure, Soft Budget Constraint. Address: Schackstrasse 4, D-80539, Munich, Germany. Tel.0049-89-21803113 email: jiarui.zhang@campus.lmu.de.

² Seminar of International Economics, Department of Economics, University of Munich, Germany. Research Interest: International Trade, Multinational Corporations. Address: Room 219, Ludwigstrasse 28, D-80539, Munich, Germany. Tel.0049-89-21806286 email: lei.hou@lrz.uni-muenchen.de.