BOOK REVIEW:

FOREIGN DIRECT INVESTMENT: ANALYSIS OF AGGREGATE FLOWS*, BY: ASSAF RAZIN AND EFRAIM SADKA

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Over the past few decades, capital flows of all types have increased tremendously for both developed and developing countries. The lion's share of this increase went to foreign direct investment (FDI). However, despite this surge in FDI for both sets of countries, developed countries still receive more FDI. What are the determinants of FDI in both sets of countries? This is the key question asked in this book.

In Foreign Direct Investment: Analysis of Aggregate Flows, Assaf Razin and Efraim Sadka present a series of new models that are useful in thinking about FDI decisions. A key hypothesis of this book is that FDI decisions involve a fixed cost. Thus, multinational firms that undertake FDI are more efficiently managed than other firms. Foreign ownership is modeled as conveying earlier access to information about the productivity of the firm. But because this information is private to the foreign direct investor, it also leads to a problem. That is, if an investor needs to sell a project, potential buyers might suspect the sale to be motivated by private information about the project's true productivity instead of a genuine need for liquidity. Firms that are eventually sold earn a lower price than would otherwise be the case.

The book captures the main intuition that FDI is illiquid and more stable relative to portfolio flows (foreign portfolio investment, FPI). Investors who are prone to more liquidity shocks undertake less FDI and more FPI. If countries become volatile and/or crisis prone, then composition of investment shifts from FDI to FPI. The authors provide supporting evidence for this hypothesis.

The key contribution of the book is a thorough analysis of the theory of determinants of FDI, while at the same time providing evidence for the theory. The structure of the book is such that each theory chapter is followed by an empirical evidence chapter, which is really nice. Their framework is detailed enough that it captures important stylized facts related to the stability and illiquidity of FDI as well as "zeros" in bilateral flows in the data. The authors use the Heckman selection bias method to deal with these extensive margin FDI decisions, i.e., to invest or not to invest.

In my review below, I will summarize key points of each chapter. Readers should thoroughly go over each chapter to gain further insights.

Chapter 1 provides an overview of the main issues. Part I, Foreign Direct Investors and Liquidity Shocks, summarizes the main features that distinguish FDI from other capital flows and analyzes the endogenous formation of FDI investment relative to FPI. FDI

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investors assume control and management; hence, FDI firms tend to be more efficiently managed.

Chapter 2, Foreign Direct Investment and Foreign Portfolio Investment: Theory, presents an information-based model of FDI that is consistent with the empirical regularity that FDI flows are less volatile than FPI flows. In the model, direct investors are more informed about fundamentals of their projects. They can be more efficient due to this information advantage but at the same time if they need to sell the project they will obtain a reduced price given the asymmetric information. Supporting evidence from panel data from 100 countries between 1980 and 2004 is presented in Chapter 3, Foreign Direct Investment and Foreign Portfolio Investment: Evidence.

In Part II, FDI with Threshold Barriers: Theory, the authors compare FDI and domestic investor behavior and the relationship between the two. Foreign direct investors manifest their comparative advantage over domestic investors in investing in high productivity firms. The general equilibrium implications of a partial-equilibrium framework developed in Chapter 4, Foreign versus Domestic Direct Investment: Cream-Skimming, are considered in Chapter 5, FDI flows with Endogenous Domestic Wage: Heterogeneous Firm.

The analysis in Chapter 6, Country-specific Aggregate Shocks: Representative Firm, ties the lack of firm-level data for most countries and existence of bilateral data on FDI flows from OECD. Productivity differences across countries are accounted to be a key driver of FDI flows. A host country's positive productivity shock raises the volume of FDI, but might reduce the extensive margin if wages rise. The authors analyze the different effects of source country productivity shocks on both merger and acquisition and greenfield FDI.

Part III, FDI with Threshold Barriers: Empirics, deals with the fact that databases on bilateral FDI flows typically include many source and host country observations with zero flows. But this is indicative of the existence of an extensive margin with the country-pair heterogeneity of fixed setup costs. The authors employ the Heckman selection bias method in Chapters 7 and 8, Overview of the Econometric Equation and Application to a Baseline Sample: OLS, Tobit and the Heckman Selection Modes, for a sample of panel data for 24 OECD countries from 1981 to 1998. In Chapter 9, Productivity Shocks, using a sample of panel data for 62 (29 OECD and 33 non-OECD) countries from 1987 to 2000, they find evidence of these conflicting effects of productivity shocks.

Chapter 10, Source and Host Corporate Tax Rates, and the concluding section of the book investigate the role of different tax regimes. The authors analyze the effect of host and source country corporate tax rates on the intensive and extensive margins and find the host country tax rate to have a negative effect on the intensive margin and the source country tax rate to have a positive effect mostly on the intensive margin.

Policy implications are discussed in Part IV, *Policy in a Globalized Economy*. In the concluding chapter, *Tax Competition and Coordination*, the authors present an international tax competition model to explain the coexistence of a "rich" source country with high capital-income taxes and a "poor" host country with low capital-income taxes; a situation which is typical of the enlarged EU.

Foreign Direct Investment is an excellent book for anyone interested in FDI, and makes a unique contribution to the field of international economics.

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