Prospectus: The political determinants of FDI technological spillover and corruption

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1 The puzzle: why do countries offer investment incentives?

Among the benefits that FDI brings to developing countries, technological spillover is the most important factor to long-term economic growth. As well known from growth theory, capital accumulation without technological innovation will in the long run stop generating growth due to diminishing return (Solow 1956). This insight prompts scholars to argue that FDI is growth-enhancing not so much because it brings capital, but because it leads to technological spillover between foreign and domestic firms (Nunnenkamp and Spatz 2004; Findlay 1978). In this view, FDI has a positive externality, providing a boost in domestic firms' productivity that foreign firms do not internalize while calculating their own benefits. This claim about the public benefit of FDI justifies countries' use of investment incentives to rectify the "undersupply" of FDI.

However, it remains controversial whether investment incentives truly help. First, incentives may not be effective in attracting FDI if multinational firms care a lot more about fundamentals such as market, labor, or natural resources (Blomström 2002). Second, even if more FDI are attracted, there is little conclusive evidence of FDI having a positive effect on growth (Nair-Reichert and Weinhold 2001; Carkovic and Levine 2002) or poverty reduction (Guerra et al. 2009). Indeed, FDI's growth-enhancing effect is highly conditional on the absorptive capacity of domestic firms. Investment incentives may be able to bring in FDI but do little to improve the local absorptive capacity. More insidious yet, handing out financial incentives deprives countries of revenue they could have collected from multinationals, further curtailing their ability to invest in improving local absorptive capacity.

Despite these caveats about the effectiveness of investment incentives, why do many countries fixate on using them to attract FDI? To understand this puzzle, I propose that we need to take into account the calculus of government officials, who may be interested in FDI as a source of private benefits rather than a driver of technological growth.

2 The model: explaining FDI investment decision as an exchange between multinational firms and government officials

In the model, the official has control over a certain endowment (e.g. market access, cheap labor) that is attractive to multinational firms. Multinationals who invest in the official's territory turn this endowment into profit via their productive activities. Firms then share this profit with the official in exchange for access to the endowment.

Firms share the profit with the official in the form of a two-good bundle: 1) technological spillover, and 2) private benefits (to the official). The official wants technological spillover because it is a crucial ingredient in long-term growth, which in turn, brings electoral or career benefits. The official also wants the more direct private benefits, which can be both legal (e.g. campaign contribution, informal network for revolving door employment) and illegal (e.g. bribe, kickback).

How the firm and the official determine the mix of technological spillover and private benefits depends on several factors, which I will hypothesize and examine in each project below.

Hypothesis 1: A high cost of bribing increases the ratio of technological spillover of FDI

To test this hypothesis, I use the OECD Anti-Bribery Convention (ABC) as a shock in the cost of bribing. In December 2009, the OECD's Working Group on Bribery (WGB) announced the Enforcement phase of the ABC, increasing both the probability and the consequence of getting caught for firms from member countries. Therefore, I argue that, following the Enforcement Phase of the Anti-Bribery Convention, FDI firms from member countries will produce more technological spillover and fewer bribes than firms from non-member countries.

We can test this argument in two ways.

First, we can examine investment incentives policy across countries before and after ABC. Before ABC, the cost of bribing is low—thus, we would expect officials to offer more investment incentives to attract FDI and share in the rent. By contrast, after ABC, firms will be more hesitant to offer bribes, making officials less enthusiastic about offering incentives. In addition, after ABC, we expect that the type of FDI attracted has more potential for technological spillover. Important for our research design, we expect to see this change in countries whose main FDI source is firms from ABC member countries, but not in countries whose main FDI source is firms from ABC non-member countries. This suggests a difference-in-difference research design.

Second, we can focus on a case study, for which Vietnam is an ideal setting for three reasons. First, Vietnam attracts FDI from both member and non-member countries of the ABC. Second, given that data on bribe and corruption is often unreliable, Vietnam is unique in the availability of a FDI bribery data, provided by the list experiments run in its national annual business survey (Malesky et al. 2015). Using the unmatched count technique, the list

experiment allows respondents to be honest in a survey about bribes without incriminating themselves.

Hypothesis 2: Officials with a short time horizon prefer FDI with more private benefits

Because technological spillover takes a long time to bear fruits, government officials with a short time horizon will prefer FDI projects that bring immediate private benefits to them. I test this hypothesis in two projects.

First, cross-nationally, I use the two sided matching model to examine the preferences of firms and countries for one another. Originally developed for the labor market and the marriage market, the matching model allows us to say what kind of firms like what kind of countries, and vice versa. Therefore, we can test whether officials with a short time horizon (e.g. when their re-election chance is in jeopardy) prefer FDI with a high corruption tendency over FDI with a high spillover potential. Conversely, we can test whether FDI firms of a certain industry prefer countries with high labor quality, stable governments, or proximity to markets. This model makes use of the recent availability of global firm level data, which allows us to track FDI investment more accurately than country level FDI flow of the past. Indeed, since aggregate FDI flow is calculated as a by-product of the Balance of Payment accounting, it perfectly captures the flow of capital on the book, but not necessarily the change in real factors that we care about (e.g. jobs created or fixed assets investment).

Second, I take advantage of Vietnam's mandated retirement age in a regression discontinuity design. If a Vietnamese official is past the age of 60, he or she is serving their last term before retirement, and thus no longer has the chance to be promoted higher. Such officials will have a short time horizon, placing less value on the long-run benefit of technological spillover. Therefore, we can compare the mix of FDI attracted by officials just above and below the age-of-60 threshold. According to our hypothesis, officials younger than 60 years will focus more on spillover and less on private benefits than officials older than 60 years.

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