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ANALYSIS

Environmental regulation and MNEs location: Does CSR matter?

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ABSTRACT

We investigate whether firms with relatively low environmental standards are more often located in countries that are poor, corrupt or have weak environmental regulations. We find new empirical evidence in favor of the Pollution Haven Hypothesis, which states that MNEs are transferring their dirty operations to countries with weak environmental regulation. Our findings suggest that these are not necessarily the poorest or most corrupt countries. We establish that MNEs with strong social responsibility avoid locating their operations in countries with weak environmental regulation.

1. Introduction

This paper addresses the relation between the responsibility of the firm, its locational choices and countries' environmental regulation. Becchetti et al. (2005) show that large and internationally operating firms are more responsive to demands from stakeholders to take account of many non-financial issues when conducting their business. It appears that they are urged to behave in a more socially responsible manner. Definitions for corporate social responsibility (CSR) do vary. However, Dahlsrud (in press) finds that the existing definitions to a large degree are congruent. CSR generally refers to actions taken by firms with respect to their employees, communities, and the environment, which go beyond what is legally required of a firm. Recent theories of CSR (Baron, 2001; McWilliams and Siegel, 2000, 2001; Bagnoli and Watts, 2003; Beltratti, 2005) assert that firms engage in "profit-maximizing" CSR. That is, companies are assumed to be socially responsible because they anticipate a benefit from these actions. Examples of such benefits might include reputation enhancement, the ability to charge a premium price for their output, or the use of CSR to recruit and retain high quality employees. These benefits are presumed to offset the higher costs associated with CSR, since resources must be allocated to allow the firm to achieve CSR status. These theoretical studies emphasize how this activity is likely to be matrixed into a firm's strategies. In line with this approach, we want to find out whether any 'responsible' behavior can be found in the internationalization patterns of firms. In this respect, our

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research relates to the so-called Pollution Haven Hypothesis (PHH). The PHH states that due to stronger environmental regulations in developed countries, firms in dirty sectors migrate towards poor countries with low environmental regulation (Mani and Wheeler, 1997). Various studies test the PHH and link foreign direct investment to environmental regulation (Sorsa, 1994; Levinson, 1996; Janicke et al., 1997; List and Co, 2000; List, 2001; Antweiler et al., 2001; Talkukdar and Meisner, 2001; Cole and Elliott, 2003; Damania et al., 2003; Eskeland and Harrison, 2003; Cole et al., 2006). In line with this type of analysis, we want to find out how the social responsibility of the internationalizing firm interacts with environmental regulation, governance, and wealth of the countries it invests in.

The Pollution Haven Hypothesis (PHH) states that as a result of increased regulation, multinationals shift their dirty production to countries with poor environmental standards. The economic rationale for the PHH is usually explained from a comparative advantage perspective: Countries with little regulations put fewer restrictions on a firm's operations and hence reduce non-market costs. The empirical evidence for the PHH is at best mixed. Some studies present evidence in favor of the PHH (Low and Yeats 1992; Xing and Kolstad 2002; Mani and Wheeler 1997). There are also arguments against the PHH, stating that due to an increase in "global eco-consciousness", multinationals are induced to innovate in cleaner production instead of migrating towards countries with poor environmental standards (Letchumanan and Kodama, 2000). Other studies find no evidence for or against the PHH (Sorsa 1994, Repetto 1995). A major obstacle in this literature is that data on regulation is often lacking. Therefore, proxies for environmental regulation such as corruption indices have been used to test the PHH (Smarzynska Javorcik and Wei, 2004). However, this complicates the interpretation of such findings. On the one hand, corruption levels indicate whether laws are enforced, but on the other hand one needs some laws and regulations to facilitate corruption.

In the last few years, we have witnessed increased attention for CSR (Becchetti et al., 2005; Beltratti, 2005). As suggested by Heal (2005), CSR can be defined as the extent to which firms internalize non-market costs. It appears that especially large and internationally operating firms are responsive to demands from various stakeholders to take account of other than financial indicators to conducting their business. If Multinational Enterprises apply their domestic standards in their overseas operations, we increasingly may expect that the poverty characteristics of a country will have less impact on firms' internationalization policies. Weak environmental regulation will not be regarded as a comparative advantage from the socially responsible firm's perspective. Then, the presumption in this paper is that socially responsible firms will be less likely to locate in countries with lax environmental regulations. We are well aware of the fact that the presence of a firm in a country may be the result of investment decisions made long ago, under different regimes. The inertia would seem to blur the effects of regulation on the probability of firms having presence in those countries. However, we also witness that there is inertia in regulation and, especially, in its enforcement. Therefore, we hope that our analysis about regulatory quality and firms' social responsibility is informative in connection with the internationalization behavior of the firm.

Our study uses firm-level data by Ethical Investment Research Services (EIRIS) on CSR and by AMADEUS on subsidiary location of 540 large European MNEs. We consider 44,149 subsidiaries located in 188 different countries. Apart from using the traditional proxies, such as corruption indices or wealth measures, we also use more direct measures of country environmental regulation from two sources provided by the World Bank, namely its World Business Environment Survey (WBES) and the World Development Indicators (WDI). We estimate a binary choice model to test whether firms that adopt a less stringent environmental standard are relatively more present in poor countries or countries with weak environmental regulation. As such, by focusing on the international location behavior of large multinationals, we investigate the interactions among CSR, wealth and environmental quality. The main question in this paper is: Can PHH behavior be observed when we take account of CSR? We find that firms with low social responsibility locate their operations more often in countries with weak environmental regulation. The PHH-literature also focuses on unobserved heterogeneity and endogeneity of pollution regulations. For example, countries that receive lots of investment in polluting industries may impose strict regulations as a consequence. Countries that become richer as a consequence of investment may in turn levy stricter regulations. These causal relations are of importance in connection with the PHH. But as our data about CSR are only available on a cross-section basis, we are unable to investigate them. Therefore, we provide preliminary evidence about the interaction between corporate social responsibility and the international location behavior of firms.

This paper adds to the existing literature in various ways. First of all, we test the PHH using actual location data of Multinational Enterprises. By using firm-level data we adopt a more direct analysis compared to other studies that test the PHH. Furthermore, we use country-level data that are a better indication of environmental regulation compared to the Pollution Abatement and Control Expenditures surveys of the OECD or other proxies used in testing the PHH. We also shed some new light on whether poverty and poor environmental regulation are related. We find that firms that set high internal environmental standards will not experience a supposedly comparative advantage when locating in countries with low environmental regulation. On the other hand, firms with low environmental responsibility might have incentives to engage in PHH behavior. Using firm-level data and direct measures of a country's environmental regulation, we also find new evidence that for firms with low environmental standards PHH behavior can be observed. However, if we consider countries with high corruption or high poverty as being "havens" we do not find similar evidence. Thus, using corruption indices and income as proxies for the quality of environmental regulation is not helpful as it leads to the wrong conclusions. The major finding of this study is that firms with good social responsibility tend to avoid locating their operations in countries where environmental regulation is weak. However, firms with poor social responsibility appear to move their operations to these countries.

The structure of the remainder of this paper is as follows. In Section 2, we present our model and introduce our data. The