Havens, Halos and Spaghetti: Untangling the Evidence About the Relationship Between Foreign Investment and the Environment

Recommended Citation

Lyuba Zarsky
Co-Director
Nautilus Institute
for Security and Sustainable Development

presented at the
Conference on Foreign Direct Investment and the Environment:
OECD Environment Directorate
The Hague, The Netherlands
28-29 January, 1999

Executive Summary
In the context of increasing globalisation of capital flows, the impact of foreign direct investment (FDI) on the environment is a topic of hot debate. Environmentalists have argued that gaps in national environmental standards draw the dirtiest OECD industries to developing countries, creating "pollution havens" and propelling a global "race to the bottom" in environmental standards. Free marketeers counter with claims that global market forces diffuse best management practices and that foreign companies, typically from the OECD, create "pollution halos" in developing countries.

This paper examines the evidence in support of both claims. Part I describes what is at stake in the debate, viz., the shape and content of emerging global governance of investment. Part II develops an analytical framework to map potential linkages between FDI and the environment, including micro-level decisions, such as industry location and firm environmental performance, as well as macro-level impacts on eco-systems, indigenous cultures, income and...
Part III summarises and evaluates the statistical and case study evidence. Statistical studies focus in the main on two issues: 1) whether and how environmental regulation influences industry location; 2) what determines firm level environmental performance. The studies suggest first, that differences in environmental standards and/or abatement costs have not made a significant difference to firm location decisions; and second, that firms, both domestic and foreign, are incrementally improving their environmental performance in many parts of the world, primarily in response to effective national regulation and/or local community pressure. There is thus little statistical evidence of either a "pollution haven" or a "race to the bottom."

There is also little statistical evidence that foreign firms consistently perform better in developing countries, especially once the firms' size is taken into account. In some sectors, notably energy, foreign firms are likely to have superior technology, or close links to "green consumer" markets. In the main, however, foreign links, including export markets and ownership of plant, seem to make little difference to firm performance. While foreign direct investment may offer benefits in particular sectors in particular countries, there is no broad "pollution halo" for FDI in general.

The case studies paint a more muddy picture. There are cases of egregious local and even national ecological degradation. While foreign firms may not have been drawn in by lower standards, they clearly perform like environmental renegades once they get there. In addition, there is evidence that policy makers are sensitive to potential effects of higher environmental standards on foreign investors. They may not weaken standards, but they don't enforce them either.

On the other hand, there are cases where foreign firms have brought with them higher standards and better management practices, as well as better technology, and cases where foreign firms were the first to respond to consumer pressure for a "greener" product or production process. These improvements, however, have been incremental and have not grappled with larger ecological impacts. The move from more to less toxic banana production in Costa Rica is a good example: while the reduced use of toxic agro-chemicals is to be welcomed, it does not address the widespread damage caused by large-scale mono-cultural production. "Halos" exist, but, to date at least, they are apparently pretty small.

Part IV reflects on the evidence as a whole and offers four insights. First, the mix of demonstrated positive, negative and neutral effects of foreign direct investment mitigates against any overarching conclusion about its incremental effects "on average." There is no average, performance is context-dependent and other things are far more important than ownership. If the goal is improvement in industry environmental performance, at both micro and macro levels, then what is needed is effective regulation utilizing both governments and communities to monitor, reward and sanction firms.

Second, a concern to be attractive to foreign investors in a highly competitive global economy has kept a lid on local/national standards or enforcement of standards. While there has not been a universal "race to the bottom," increased globalisation--lacking a global regulatory framework--has inhibited a "race to the top" and caused environmental commitments to be "stuck in the mud."

Third, while "pollution havens" cannot be proven, a pattern of agglomeration of pollution is discernible, one based not on differences in national environmental standards, but on differences in income and/or education of local communities. They may not be "havens", but there are clearly "pollution zones" of poorer people, both within and across countries, where firms perform worse and where regulation is less effective.

Fourth, the quality of the evidence, both statistical and case study, is poor compared to the research needs. Most of the statistical studies rely on very narrow and partial indicators of environmental performance, or use proxies for data that are simply not available. The case studies suffer from data problems as well, including the lack of ecological performance indicators and the lack of analytical frameworks to link macro and micro ecological impacts.

Finally, there is a great gulf between what the statistical studies demonstrate and the issues at stake in the debate. Sifting through the evidence thus feels like searching for a small meat ball in a large bowl of spaghetti. In general, the gulf can be characterised as a "micro-macro" problem and reveals the different environmental paradigms at play. Based on a "pollution prevention" paradigm, the statistical and some of the case studies utilise very narrow and partial measures of environmental performance -- often, just one particular pollutant. Environmentalists, however, are concerned not only about pollution but the "environmental management" of eco-systems as a whole, and more broadly about the "sustainable development" of societies.
In some of the case studies, foreign direct investment is scrutinized not only as a contributor to local air and water emissions, but also as a macro-phenomenon contributing to the scale of overall ecological impact, as well as national policymaking and indigenous and community rights. There is a large gap between even the best of the incremental improvements in company performance and the scale of ecological impact caused by broadly unsustainable production and consumption patterns at the global level. The wealth of northern consumers might help make products marginally "greener," but it also creates a heavy burden on the earth. It is in this sense that the claim that foreign direct investment is "bad" for the environment has credibility.

Part IV concludes with some recommendations about how to enlarge the environmental benefits of FDI. First, it is clear that regulation matters. While local and national regulation can be effective, there is a great need for an overarching global framework to heighten investor environmental responsibilities and get out of being "stuck in the mud." Located within a set of global rules governing investment, environmental norms should include both micro level investor responsibilities and macro level sustainability objectives. The process of generating and monitoring global rules should provide ample opportunity for input by environmental NGOs and other community pressure groups.

Second, a global environmental framework of regulation should target not foreign investment, but investment as a whole. Minimum standards should govern any investment project, or at least the larger ones. Such a framework would help to diffuse "best practice" more rapidly, as well as help shift production to greener products.

Third, beyond regulation, there is an urgent need for corporate accountability mechanisms. Communities and consumers need access to corporate performance information and corporations need to make such information credible. Fourth, governments need to invest more resources in developing ecological data, including performance indicators.


Nautilus Institute
2342 Shattuck Ave. #300, Berkeley, CA 94704 | Phone: (510) 423-0372 | Email: nautilus@nautilus.org