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The long-run effects of environmental reform in open economies

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Abstract

We compare the short- and long-run effects of environmental reform and harmonization under autarky and free trade. When trade is driven by environmental distortions rather than real relative advantages, harmonization of environmental policies, even if achieved by lowering standards in one country, can improve short-run aggregate welfare. With the possibility of multiple steady states, harmonization can improve long-run welfare, especially when the environment is fragile. Further, long-run considerations favor upward harmonization even when it is equivalent to downward harmonization in the short run. For a country trapped in a low (or bad) steady state, environmental reform may not move it to a high (or good) steady state under autarky. However, under trade, harmonization of policies may enable this country to reach the high steady state. Conversely, reforms that increase the relative differences in distortions may, under trade, cause economies to move to a low steady state.

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1. Introduction

Environmentalists' distrust of international trade contributed to the failure of the November 1999 WTO meetings in Seattle, the inability of President Clinton to obtain fast-track negotiating authority, and the difficulty of passing NAFTA. Environmentalists fear that competitive pressures, heightened by trade liberalization, create a danger of a "race to the bottom" in environmental standards. They conclude that the international harmonization of policies is important to prevent this race.

Economists recognize that the harmonization of distortions such as tariffs improve welfare under plausible circumstances. However, they tend to oppose pressures for harmonization of environmental policies across nations, arguing that policy differences reflect differences in income, tastes, capital stocks, resource endowments, or a variety of other factors that contribute to inter-industry trade. In this case, harmonization is an attempt to thwart the efficient workings of the market.²

Several recent papers, including Chichilnisky [6,7], Copeland and Taylor [8,9], Brander and Taylor [3,4], and Karp et al. [13], emphasize that differences in environmental regimes (or market failures) can provide an impetus for trade. Property rights may be weaker in some countries, and some countries may have been more successful in dealing with externalities. If this is the correct explanation for different standards, and if these different standards have a significant effect on trade flows, then harmonization may increase welfare.

Econometric studies find little evidence of a relation between aggregate trade flows and differing levels of environmental protection, although Mani and Wheller [17] present evidence that trade may create transitory pollution havens. At a commodity-specific level, it is easier to see how differing levels of market failure can influence trade flows. For example, in response to serious deforestation, China restricted logging in 12 provinces in 1998, and in 18 provinces in the year 2000. This logging ban, together with continued economic growth and a reduction in tariffs, has caused China to become one of the world's largest importers of logs. Burma, where logging is controlled by warlords, and where the market failure is probably more severe than in pre-reform China, has become a primary source of supply. The environmentally beneficial policy in China could worsen the regional environmental problems by increasing the pressure on Burmese resources [18]. Aggregate trade statistics, of the sort typically used in econometric studies, might not identify this kind of causal relation. However, this is the type of scenario that concerns environmentalists who oppose liberal trade.

Tariffs provide a useful analogy for the effect of harmonization. Welfare is likely to improve whether harmonization is achieved by raising low tariffs or lowering high ones. This equivalence is due to the fact that welfare depends on relative, not on absolute prices [10]. To the extent that trade is driven by relative rather than absolute environmental standards, a similar equivalence is likely to hold. In this case, the environmentalists' goal of harmonization could

²The arguments for and against harmonization are presented in many articles, including: Bhagwati [1], Bhagwati and Srinivasan [2], Charnovitz [5], Hoel [12], Levinson [16], Klevorick [14], Robertson [19], and Wilson [20]. Krugman [15] summarizes many of these arguments.

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