International Trade and Environmental Controls: Reply

By

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As Charles Pearson correctly notes, earlier general equilibrium analyses of the diversion of resources from production of conventional goods and services into environmental control — and its effect on trade and comparative advantage — have ignored the positive impact of pollution control on productive capacity. Pearson argues that pollution abatement by producers and consumers (a_{12} and a_{22}) may very well increase overall welfare, even as it reduces welfare measured in conventional terms. This was fully recognized in the earlier work. But he also argues that resource-using pollution abatement by producers and consumers (a_{11} and a_{21}) may in fact increase the *productivity* of resources used in the economy — via a_{12} and a_{22} as well if worker productivity is to be fully considered. This is certainly true, and was ignored due to exclusive reliance on the factor-endowments approach in the earlier analysis based on the Heckscher-Ohlin tradition.

If the model is modified as Pearson suggests, the results will be outward pressure on the relevant transformation functions which may counteract the inward pressure caused by the resource diversion. The size of this resource-saving reversal is an open question, and will be extremely difficult to assess empirically. It may be concentrated in the export or import-competing sector, and thus may offset or accentuate the sectoral biases inherent in the initial resource-diversion. Hence the trade effects of the reversal are themselves indeterminate, although it is difficult to imagine a *full* offset against the initial opportunity costs encountered. Carrying Pearson's point one step further, it is possible for one country to affect factor productivity in another — and hence its competitiveness and trade — through transfrontier pollution (TFP). Measures designed to combat TFP by the home country will affect both its own and its neighbors' production and trade patterns via the linkage proposed by Pearson.