

Book Reviews

The Economics of International Trade and the Environment

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Over the last two centuries international trade has been the central to economic thinking. Economists have consistently illustrated the many potential gains from free international trade. However, recent studies and some environmentalists have questioned the desirability of free trade for variety of reasons. Until recently, the literature on international trade and environmental economics has evolved mostly independently. Although environmental economics has focused largely on production externalities, there have been considerable interests in examining the interaction between international trade and the environment. This is because environmental issues have become increasingly important in bilateral free trade agreements and international trade negotiations. Many policy issues, such as lax environmental policies, trade and trans-boundary pollution, and international environmental agreements, are relevant for both international and environmental economists. Additionally, most firms, countries, and international organizations need to consider environmental impacts of their decisions. Examining the impacts of environmental regulations on trade and free trade agreements on the environment requires tools of both international and environmental economics.

This book consists of 20 chapters or articles and a wide range of theoretical models and empirical applications. It introduces theoretical and empirical articles dealing with topics on the interface of international trade and the environment. It explores many of the issues that are useful for increasing our knowledge of environmental policy in the presence of international trade and trade policy in the presence of environmental policy. The following is a brief description of the book.

The book begins with an introduction tying the chapters together and providing an overall picture of the issues discussed in the book. Authors of Chapters 2–11 introduce theoretical models to analyze the connections between environmental and trade policies using tools of game and microeco-

nomics theory. Chapters 2 and 3 present general equilibrium models of trade for waste disposal services (Copeland) and for analyzing the economic impact of abatement strategies (Merrifield). These models, however, do not account for the strategic aspects of the trade policy. Chapters 4, 5, 6, and 9 are related to implications of strategic environmental policy for trade. Markusen, Morey, and Olewiler introduce a two-region, two-firm strategic policy model to examine the links between environmental policy, plant location and market structure (Chapter 4). In Chapter 5, Rauscher presents a strategic model of lobbying for lax environmental regulations. Barrett's analysis in Chapter 6 emphasizes the importance of comprehending the nexuses between markets and the environment, while the importance of strategic behavior by both producers and government are the focus of Ulp's model in Chapter 9. Institutions such as property rights over environmental resources have the potential to affect the trade between nations. To analyze the impacts of property right resource externalities, Chichilnisky presents a two-product, two-country trade model (Chapter 7). The effects of trade and environmental policy on trade flows, pollution levels, and welfare are analyzed by Copeland and Taylor in Chapter 8. In Chapter 10, Barbier and Schulz develop a model of natural species exploitation and show that trade interventions are unlikely to attain desired objectives. Finally, Batabyal examines the consequences of environmental policy in a strategic setting and shows that the pursuit of strategic environmental policy can impoverish a country (Chapter 11).

Chapters 12–20 apply economic theory to practical setting to examine the extent to which this theory can inform policy decisions about problems at the interface of international trade and the environment. Chapter 12 by Robison uses a 78-sector model to examine the impact of changes in industrial pollution abatement costs on the U.S. balance of trade and the environment. The implication of this analysis is that high-abatement-cost industries are likely to move to countries that do not adopt stringent environmental policies. Similarly, Tobey provides an empirical test of the hypothesis that stringent environmental policy causes trade patterns to deviate in commodities produced by the dirty industries (Chapter 13). However, his analysis finds no evidence to support this hypothesis. Felder and Rutherford in Chapter 14 focus

comparing it with the notion of “prudent avoidance” in the United States. These approaches, he suggests, have led to the institutionalization of marginal concerns and create a lose–lose situation. Not taking precautions is taken to show a lack of concern, while funding new research suggests either an attempt to influence the outcome, or the existence of a real problem. Thus, irrespective of outcome, any action taken serves to drive public fears rather than assuaging them.

He also demonstrates how it is that once one authority, region, or country has adopted a particular standard, others feel under pressure to follow suit. Indeed, the contemporary vogue for the devolution of power to regional authorities has accelerated this trend, as new bodies are at pains to prove their purpose and adopt a campaigning agenda to distinguish their role from that of central government. All this leads to a ratchet-like effect superimposing worst-case regulations onto worst-case assumptions. The role of the European Commission is particularly apt in this regards having established safety as one of its main “*raisons d’êtres*.”²

The book’s greatest strength, however, lies in its international comparisons. Here, the extent to which social perceptions were distinctly constructed according to varying national priorities and agendas is most clearly exposed. Thus, the sheer size of the United States, combined with the availability of cheap conventional calls and the pre-existing confusion of media and lobby groups made it much harder for activists to establish a coherence there. This was despite the long-standing debates there over the impact of electromagnetic radiation. What’s more, efforts to establish a campaign against cellular phones became moderate by the specific responses to the Columbine High School shootings of April 1999 and the September 11 terrorist attacks in 2001. These events showed a nervous public the extent to which technology could possibly serve a vital social function, thereby effectively undermining moves against it.

In Europe, on the other hand, concerns focused on the siting of transmission towers, or base-stations. Thus, campaigns only really emerged when the masts, reflecting the shift from analogue to digital technology, needed to be located in closer proximity to the users. As more masts were required in hilly or

mountainous regions, such as Scotland and Italy, than flat ones, such as the Netherlands, so the campaigns took on different intensities there. What’s more, telecommunications towers had a different meaning in Northern Ireland, where they evoked memories of a “surveillance state” and the campaign against them was used by the authorities to unite the different communities, to Ireland itself. There, complaints largely emanated from non-Irish émigrés searching for a rural idyll, and the issue threatened to challenge the young, dynamic, and forward-looking image of a “Celtic Tiger” being promoted by the government. For other similar and rather evident reasons, in Finland, the home of Nokia, such campaigns never really got off the ground.

The role of the media is most rigorously examined in the U.K. case. Here, far from being a tabloid frenzy, concerns were first raised, and continued to be developed, by the high-brow broadsheet, *The Sunday Times*. Headlines such as “Mobile phones cook your brain” (April 14, 1996) and “Are we being told the truth about mobile phones” (December 20, 1998), reflected one particular journalist’s personal obsession. Indeed, the case is well made that once the issue hit the tabloids it also shifted from one newspaper to another as particular journalists changed jobs. In an interview with Cathy Moran of the *Express* newspaper, Burgess goes so far as to ascertain how her interest in the subject stemmed from her seeing it as a personal opportunity to do something “more worthwhile” than covering celebrity-driven trivia (p. 80).

It is the interaction between this small number of “moral entrepreneurs,” in lobby groups and the media, and governments with differing attitudes to the future that determined the shape concerns took in each country. Notably, this altered the original nature of any concerns expressed by the relatively few members of the general public to raise any issue in the first place. These originally focused on the aesthetics of transmission masts, the impact they might have on property prices and the lack of consultation as to their deployment and positioning. It was institutional influences that transformed these rather isolated “not-in-my-backyard” concerns into far more effective campaigns about the purported health effects of the phones themselves, as well as their base stations.

One development was that as ownership of mobile phones became both more democratic and more likely to occur among younger age groups, so the debate shifted from attacking “yuppie status-symbols” to focusing on the towers and their possible effects

² Durodié, B. (1999). *Poisonous Dummies: European Risk Regulation after BSE*. European Science and Environment Forum, Cambridge. Available at <http://www.scienceforum.net/pdfs/Durodie1.pdf>.

upon children. The science, as is often the case, was counterintuitive in this regard. The closer you are to a base-station, the less energy your phone requires to receive the signal. Thus the best place to site masts would be as near to children as possible. But like so many of these debates, a nervous elite ignored the real evidence in favor of hearsay and emotion. Thus it was that the then Education Minister, David Blunkett called for an “urgent investigation” of the placing of masts on schools, while the National Union of Teachers called upon the Health and Safety Executive for advice and the Metropolitan Police advised their officers to restrict usage of the technology (p. 87).

The consequence, unique to the British response, was the establishment of the Independent Expert Group on Mobile Phones (IEGMP), under the chairmanship of the former Chief Medical Officer, Sir William Stewart. This initiative, launched at the behest of the then Minister for Public Health, Tessa Jowell, to “keep ahead of public anxiety,” is seen by Burgess as the paradigm inquiry of our precautionary times. It sought to avoid dealing with the scientists of the National Radiological Protection Board, including instead members with little specific expertise in the field. On one hand it concluded that there was no scientific evidence whatsoever of any harm, on the other it sought to give credence to public concerns by advocating further research and urging parents to limit their children’s usage.

Unsurprisingly, this attempt to have it both ways, satisfying both scientists and concerned parents alike, satisfied neither. It led to headlines such as “So are mobiles a risk or what?” in the *Mirror* and similar confusion elsewhere. Through this process of demonstrating their sensitivity to what they presumed to be public concerns, or what Burgess calls “symbolic politics” (p. 266), the authorities not only failed to clarify the matter, but made it worse as the number of campaigns grew in its aftermath. These felt encouraged by such official endorsement and apparent recognition of their concerns. In fact, as Burgess indicates, parents might well have responded differently in surveys if the scale of the risk and money expended upon it had been put in the context of other options for protecting their children’s health.

In the case of mobile phones, no plausible scientific mechanism has been posited to explain any purported ills. Indeed, much of the research produced has been to explain various associations after they had been noticed, rather than to understand their possible cause. This approach could equally well be applied to other products and processes that produce localized heating effects, such as laptops and electric blan-

kets. But apart from generating new fears, as Burgess points out, noting an effect is not the same as assuming harm. Regardless, as Furedi suggests elsewhere, “if society wants to treat electromagnetic fields as a cause of illness, they will be deemed a cause of illness.”³ What’s more, there is a danger in dealing with problems in this way that diagnosis becomes reduced to mere description and thus the possibility of resolution becomes impossible.

Risk consultants and sociologists suggest our perception of risk to be shaped by such factors as whether the risk is taken voluntarily, the extent to which it is understood, the fear it instills, our level of trust in authority and the impact it may have, particularly on children. Burgess’ analysis suggests rather different factors. These include, the degree of political engagement in public life, the confusion of roles and responsibilities between differing authorities, the growing sense of isolation among the political, scientific, and commercial elite and their attempts to combat a crisis of legitimacy by promoting public fears.

Situating the rise of an obsession with the impact of science upon our lives into this context of a demise in broader social and political engagement in society, Burgess points to the ultimate irony that “attempts to reform science have extended the role of science in policy much further” (p. 232). In the end, it was the sheer utility of the technology that outweighed the fears that had been constructed and, as people continued to use their mobiles, so gradually the media lost interest. It remains, however, a salutary lesson in the social construction of fears that should be used to inform many similar episodes that will undoubtedly emerge in the years ahead.

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Strategies for Coordinating Disaster Responses

Program on Environment and Behavior,
Monograph 61, Institute of Behavioral
Science, University of Colorado, Denver, CO,
2003, ISBN 1-877943-17-7, 240 pages, \$20.00

Thomas Drabek has been studying emergency response for 40 years and has published dozens of articles and monographs. This book comes at an

³ Furedi, F. (2004). *Therapy Culture: Cultivating Vulnerability in an Uncertain Age* (p. 136). Routledge.

opportune time, when the United States government and its state progeny are allocating huge amounts of money to terrorism-related disaster prevention and response. Drabek's NSF-funded research for this book is reported in tables, accompanied by statistical analyses, supported by quotations and delivered in academic prose. Yet the message delivered by this carefully presented analysis is about as subtle as a hammer falling on a bare foot. In essence, he reports that success depends on organizational culture and the experience of personnel. In other words, good sensors, expensive GIS equipments, and the latest statistical models do not mean success in disaster response.

This message is delivered in seven chapters. The first and second provide research questions and describe methods of analysis, which consisted of two rounds of interviews of more than 150 people who work mostly in the West and South in places that suffered tornadoes, hurricanes, floods, windstorms, avalanches, wildfires, earthquakes, bridge collapse

and hazardous materials spills. Chapters 3–6 present the results, and the last chapter offers conclusions.

The details of the results are found in regression analyses and in the text. For example, the reader can learn what factors are associated with coordination among organizations, the degree of improvisation among participants, and many others interesting insights that cumulatively lead to successful or less successful responses to emergencies. The key finding is that management skills and experience gained through interacting with other organizations at meetings, in training, and in actual events produce the most effective responses.

I doubt if the readers of this journal will be surprised by the conclusions. But they should cause government agencies that are currently allocating many millions of dollars to GIS systems, models and hardware to stop and think about what really is required to reduce vulnerability and risk.

—Thomas E. Drabek