

# MARKET ACCESS, COMPETITIVENESS, AND HARMONIZATION: ENVIRONMENTAL PROTECTION IN REGIONAL TRADE AGREEMENTS

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## I. INTRODUCTION

Free trade among nations produces a range of mutually beneficial results.<sup>1</sup> Liberalized trade offers the promise of an increased range of consumer choice, less expensive manufacturing inputs and consumer goods, and economies of scale resulting in potentially higher returns on investment for producers of goods and services. Open markets, furthermore, stimulate social progress as contact among societies leads to the sharing of ideas and policies, more rapid diffusion of technological advances, and the development of a common base of experiences. By increasing interactions between individuals and building a prosperity based on interdependence, trade also enhances the prospect of harmony among societies and serves to promote peace.<sup>2</sup> In the wake of the worldwide economic chaos of the 1930s and World War II, these considerations led to the establishment of the modern international trade regime embodied in the General Agreement on Tariffs and Trade ("GATT").<sup>3</sup> The GATT was designed to provide a structure for international coop-

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1. See JOHN H. JACKSON, *WORLD TRADE AND THE LAW OF GATT* 9-10 (1969); ROBERT GILPIN, *THE POLITICAL ECONOMY OF INTERNATIONAL RELATIONS* 171 (1987) (reviewing the benefits of trade).

2. See GILPIN, *supra* note 1, at 172.

3. General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194. The GATT was recently subsumed by the World Trade Organization ("WTO"), which embodies the results at the Uruguay Round of global trade negotiations. See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, 33 I.L.M. 1125 (1994) [hereinafter Final Act].

eration in the pursuit of trade liberalization. Recently, the benefits provided by freer trade have motivated clusters of states to create a series of regional trade agreements, such as the European Community,<sup>4</sup> the North American Free Trade Agreement ("NAFTA"),<sup>5</sup> the Caribbean Common Market ("CARICOM"),<sup>6</sup> and the Mercado Comun del Sur ("MERCOSUR").<sup>7</sup>

Over the last several decades, many states have also developed extensive programs to protect the environment. At the heart of these programs are a variety of environmental standards and regulations, addressing the characteristics of both products and production processes. Environmental laws generally require producers or consumers to clean up their pollution or to pay for the environmental harms they cause. By "internalizing" the costs of environmental degradation, these policies create, for example, incentives to reduce air and water pollution, promote better waste management and disposal practices, and encourage the conservation of natural resources.

For most of the last half century, trade liberalization and environmental protection initiatives have moved along separate tracks. Today their paths increasingly intersect and often collide.<sup>8</sup> Notably, free traders fear that environmental regulations will be used mischievously by protectionists<sup>9</sup> to close markets. Environmental advocates,

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4. See TREATY ESTABLISHING THE EUROPEAN COMMUNITY, Feb. 7, 1992, O.J. (C 224) 1 (1992), [1992] 1 C.M.L.R. 573 (1992) [hereinafter EC TREATY].

5. North American Free Trade Agreement, Dec. 8, 1992, Canada-Mexico-U.S., 32 I.L.M. 289 [hereinafter NAFTA].

6. The Caribbean Common Market ("CARICOM"), established in 1973, consists of Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago. See Treaty Establishing the Caribbean Community, July 4, 1973, 12 I.L.M. 1033 (1973).

7. The Treaty of Asuncion established the South American Quadripartite Common Market, Mercado Comun del Sur ("MERCOSUR"), and was signed by Argentina, Brazil, Paraguay, and Uruguay on March 26, 1991. See Treaty Establishing a Common Market, Mar. 26, 1991, Argentina-Brazil-Paraguay-Uruguay, 30 I.L.M. 1041 (July 1991).

8. See DANIEL C. ESTY, GREENING THE GATT: TRADE, ENVIRONMENT, AND THE FUTURE 9-32 (1994) [hereinafter ESTY, GREENING THE GATT] (discussing the evolution of the "trade and environment" issue); *id.* at Appendix C (listing major trade-environment disputes). See generally TRADE AND THE ENVIRONMENT: LAW, ECONOMICS, AND POLICY (Durwood Zaelke et al. eds., 1993) [hereinafter Zaelke]; TRADE AND THE ENVIRONMENT: THE SEARCH FOR BALANCE (James Cameron et al. eds., 1994) [hereinafter Cameron].

9. Note the cultural divide even in vocabulary that must be bridged to integrate trade and environmental policies. To free traders, "protection" is the ultimate evil. To environmentalists, "protection" is the central goal. See generally John H. Jackson, *World Trade Rules and Environmental Policies: Congruence or Conflict?*, 49 WASH. & LEE L. REV. 1227 (1992) [hereinafter Jackson, *Congruence or Conflict?*].

on the other hand, worry that under a liberalized trade regime, legitimate environmental programs will be labeled as unacceptable trade barriers or that open markets will create competitiveness pressures that make continued adherence to rigorous environmental standards difficult. But freer trade and a healthier environment are both important contributors to social welfare, and neither should be pursued at the expense of the other.<sup>10</sup>

This Article examines the relationship between trade liberalization and environmental protection, focusing on how conflicts between these policy domains may be alleviated and made mutually reinforcing, especially in the context of regional trade agreements. Part II describes the various concerns that the parallel pursuit of trade liberalization and environmental protection have raised. Part III suggests a taxonomy of responses to the tensions between trade and environmental policy outlined in Part II. The nature and characteristics of these tools and strategies vary considerably, consistent with the diverse set of concerns to which they respond. The spectrum of strategies ranges from total non-integration of environmental policies and a "laissez-faire" approach to differences in environmental standards across jurisdictions, to total harmonization of environmental standards, which requires a high degree of regulatory integration. Part IV applies the theoretical framework outlined in Parts II and III to two regional trade agreements, the EC<sup>11</sup> and NAFTA.<sup>12</sup> This Article examines, in particular, the extent to which the trade and environment concerns discussed in Part II have arisen in these two agreements, as well as the degree to which the responses discussed in Part III have been used to address these concerns. Part V discusses the extent to which the experience with regional trade agreements might apply to the trade and environ-

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10. See generally WILLIAM BAUMOL & WALLACE OATES, *THE THEORY OF ENVIRONMENTAL POLICY* (2d ed., 1988). For the proposition that the conflict between environmentalists and economists is for the most part unnecessary, see Jagdish N. Bhagwati, *The Case for Free Trade*, *SCI. AM.*, Nov. 1993, at 42-43.

11. We refer to the European Community (the "EC") rather than the European Union (the "EU") because, with respect to the matters at hand, the EC is the more precise term. Under the Maastricht Treaty, the Member States agreed to establish a "European Union" based upon three pillars: (i) a common market called the European Community; (ii) joint foreign and security policies; (iii) cooperation in the fields of justice and home affairs. Since trade and environment policies are exclusively dealt with in the context of this first pillar, we will generally refer to the "EC." For a discussion of the Maastricht Treaty and its three-pillar system, see Deirdre Curtin, *The Constitutional Structure of the Union: A Europe of Bits and Pieces*, 30 *COMMON MKT. L. REV.* 17 (1993).

12. NAFTA, *supra* note 5, at 605, Art. 915.1 (1993).

ment issues arising in the context of the World Trade Organization (the "WTO").<sup>13</sup>

Part VI offers some general conclusions. Specifically, we suggest that trade liberalization and advanced economic integration require some degree of integration in other realms, including environmental regulation. Fortunately, there are a variety of policy tools—especially various forms of regulatory harmonization—available to respond to this need. Those who assume that harmonization implies uniform standards, and thus dismiss it as inefficient, fail to appreciate the range of effective and refined strategies for policy coordination. We observe that the EC could benefit from valuable lessons in NAFTA, and NAFTA could learn from EC experiences in the reconciliation of competing trade and environmental goals. Finally, those pursuing future trade liberalization in either regional or multilateral agreements could profit from examining the successes and failures of the EC and NAFTA.

## II. THE CONCERNS

This Part spells out and categorizes the various concerns that may arise from the intersection of trade and environmental protection policies in the context of trade agreements. A first set of concerns relates to the issue of market access. Free traders worry that environmental standards, especially those which regulate the environmental characteristics of products (*product standards*), may act as barriers to trade.<sup>14</sup> Conversely, environmentalists fear that trade liberalization entails market access commitments that could be used to override national environmental product standards.<sup>15</sup> These agreements, they fear, will result in common standards set at average levels or, worse yet, at the lowest common denominator.<sup>16</sup>

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13. See Final Act, *supra* note 3.

14. See Jackson, *Congruence or Conflict?*, *supra* note 9, at 1227–28.

15. See Patti Goldman, *The Legal Effects of Trade Agreements on Domestic Health and Environmental Regulations*, 7 J. ENVTL. L. & LITIG. 11 (1992).

16. See, e.g., Jagdish Bhagwati & T.N. Srinivasan, *Trade and the Environment: Does Environmental Diversity Detract from the Case for Free Trade?*, in 1 FAIR TRADE AND HARMONIZATION: PREREQUISITES FOR FREE TRADE 159, 191 (Jagdish Bhagwati & Robert E. Hudec eds., 1996) [hereinafter Bhagwati & Srinivasan].

A second set of concerns relates to the issue of competitiveness. In particular, many environmentalists, some business people, and a large number of politicians fear that companies from countries with high environmental standards, such as the United States, will be disadvantaged in open competition with firms operating in jurisdictions with less rigorous (and less costly) standards. They focus, in particular, on standards that regulate production processes or methods (process or *PPM* standards) and worry that substantial differences across countries will distort competition, create incentives for industrial relocation, or trigger a “race toward the bottom” in environmental standard setting.<sup>17</sup>

### A. *Market Access*

The prospect of environmental standards acting as barriers to the free movement of goods between states takes two primary forms. First, product standards may impede trade when they discriminate between imported and domestic products. Environmental requirements may discriminate *per se* if they impose different requirements on imported and domestic products. The WTO recently found, for example, that the United States had discriminated against imported gasoline by mandating differential baselines for olefin (an impurity that causes pollution) reductions by foreign producers.<sup>18</sup> Product standards may also discriminate in *effect* if they appear to apply equally to imported and domestic products, but in fact bear more heavily on imports. An example of this kind of discrimination

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17. See ESTY, *GREENING THE GATT*, *supra* note 8, at 51–52 (discussing competitiveness effects including the race to the bottom and “political drag”); Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 570, 607–09, 627–38 (1996) [hereinafter Esty, *Federalism*] (explaining the race toward the bottom dynamic). *But see* Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the “Race to the Bottom” Rationale for Federal Environmental Regulation*, 67 N.Y.U. L. REV. 1210, 1233–44 (1992) (arguing that there is “essentially no theoretical foundation” to the race to the bottom claims).

18. See, e.g., GATT Dispute Panel Report on U.S.—Standards for Reformulated and Conventional Gasoline, 1996 GATTPD LEXIS 3, Jan. 29, 1996. For a good discussion of this case see Steve Charnovitz, *The WTO Panel Decision on U.S. Clean Air Act Regulations*, 13 Int’l Trade Rep. (BNA) 459 (Mar. 13, 1996). The decision of the dispute panel was recently confirmed by the WTO Appellate Body. See World Trade Organization Appellate Body: Report of the Appellate Body in *United States—Standards for Reformulated Gasoline*, May 20, 1996, 35 I.L.M. 603 (1996). For a discussion of this appeal, see Nancy E. Scott, *The WTO Appellate Body and the US-Venezuela Gasoline Dispute*, 3 J. INT’L TRADE L. & REG. 103 (1996).

would be a regulation prohibiting the sale of a toxic substance that is largely imported while allowing the sale of a competing domestically produced substance of similar toxicity.

Second, even in the absence of protectionism, the adoption of different product standards may fragment the market, increase transaction costs, and generate diseconomies of scale for all producers.<sup>19</sup> For example, inconsistent motor vehicle emission standards impede trade in cars since they force producers to set up special production lines for each country in which they wish to sell. Although divergent pollution control requirements may present little burden when the market is the size of the United States, automakers have complained bitterly about states such as California, which set their own tailpipe standards.<sup>20</sup>

Conversely, from an environmental standpoint, there is a fear that trade agreements which ensure the free movement of goods may prevent or discourage governments from adopting or maintaining certain kinds of environmental product standards. These agreements generally mandate that environmental standards be based on scientific principles, not discriminate between domestic and imported products, and not create "unnecessary" obstacles to trade. Environmentalists fear that a strict application of these "disciplines" could weaken environmental regulatory programs.<sup>21</sup> The Mexican GATT challenge to U.S. dolphin protection standards for tuna fishing<sup>22</sup> and the European Union's effort to have the U.S.

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19. In the context of EC law, this problem has been clearly expressed by Advocate General Van Gerven in his opinion in Joined Cases C-401/92 & C-402/92, *Criminal Proceedings Against Tankstation 't Heuske vof and J.B.E. Boermans*, 1994 E.C.R. I-2199, 2215:

Product requirements by nature impede the access to the market of the Member State which laid them down, because they mean that a product lawfully manufactured and marketed in the Member State of origin must be adapted when it is imported into another Member State in order to suit the product requirements in force there, and therefore have the effect of requiring the product to satisfy the requirements of two different sets of legislation . . . which almost certainly has the effect of impeding the imported product's access to the market or even, when these costs are prohibitive, of making access impossible.

*Id.*

20. See E. Donald Elliott et al., *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 J.L. ECON. & ORG. 313, 330 (1985).

21. See ESTY, *GREENING THE GATT*, *supra* note 8, at 46-52 (spelling out how trade liberalization can threaten environmental programs); see also Goldman, *supra* note 15.

22. See Robert Housman & Durwood Zaelke, *The Collision of the Environment and Trade: The GATT Tuna/Dolphin Decision*, 22 *Envtl. L. Rep. (Envtl. L. Inst.)* 10268 (1992).

Corporate Average Fuel Economy mileage standards declared inconsistent with U.S. GATT obligations<sup>23</sup> suggest that such worries may be well founded.

### *B. Competitiveness*

Differential environmental requirements raise competitiveness concerns which take several forms. First, differences in the stringency of process standards may distort competition. Other things being equal, companies operating in jurisdictions with lax environmental rules will be able to bring their goods to market at lower costs than those operating in high-standard jurisdictions.<sup>24</sup> This will result in increased sales, market share, and profitability for those producing in the low-standard states.

In some circumstances, local conditions—for example, strong winds that dissipate pollution more quickly, a less dense population or lower levels of existing pollution—justify relatively lax environmental regulations. In these cases, less strict pollution control requirements reflect natural locational advantages and the fact that some emissions cause less harm than others. From an economic vantage point, internalizing environmental costs will be cheaper in some circumstances than in others. Intervention to eliminate this type of difference would not be good policy. Indeed, such differences make gains from trade possible.

Cost advantages obtained by producers facing lower pollution control expenditures might be unfair, however, in cases where less strict requirements are not based on any comparative advantage.<sup>25</sup> Policy intervention may be appropriate where the choice of suboptimal standards in one jurisdiction threatens to erode the competitive position of producers in other places.

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23. See Steve Charnovitz, *The GATT Panel Decision on Automobile Taxes*, 17 Int'l Env't Rep. (BNA) 921 (1994) [hereinafter Charnovitz, *Automobile Taxes*].

24. See ESTY, GREENING THE GATT, *supra* note 8, at 155–57; Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L.J. 2039, 2056–57 (1993) [hereinafter Stewart, *Environmental Regulation*].

25. In the most egregious cases, the least-cost producer is “free-riding” on the environmental actions of others, perhaps even in violation of international agreements. For example, a semiconductor maker who used CFCs in violation of the Montreal Protocol to clean his computer chips might well be able to bring chips to the marketplace at lower costs than his competitors.

Second, differences in the stringency of process standards may induce industrial relocation as cost-cutting producers seek out low-standard jurisdictions. There is, however, little empirical evidence that such shifts toward "pollution havens" occur.<sup>26</sup> The lack of data probably reflects the fact that industrial relocation depends on a number of factors. In general, labor costs, transportation expenditures, and access to markets outweigh the significance of environmental compliance costs.<sup>27</sup> In addition, the cost of moving production from one place to another is often considerable.

Nevertheless, as other costs (e.g., capital, labor) equalize across jurisdictions, small differences in variables such as pollution control expenditures may grow in relative importance, exacerbating environmental competitiveness concerns. In certain industries (e.g., refining) environmental costs already represent a significant share (more than ten percent) of total costs.<sup>28</sup> In most industries, moreover, pollution prevention and control expenditures are rising.<sup>29</sup> Environmental competitiveness concerns are also likely to be more pronounced in "commodity" products where small price differences can dramatically affect sales.<sup>30</sup> For other goods, however, product differentiation is significant. For these goods, variations in pollution-control costs pale in comparison as a competitive strategy to developing innovative ways to add value to the product and set it apart from the competition.<sup>31</sup>

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26. See, e.g., H. JEFFREY LEONARD, *POLLUTION AND THE STRUGGLE FOR THE WORLD PRODUCT* (1988); Joseph P. Kalt, *The Impact of Domestic Environmental Regulatory Policies on U.S. International Competitiveness*, in *INTERNATIONAL COMPETITIVENESS* (A. Michael Spence & Heather A. Hazard eds., 1988); Patrick Low & Alexander Yeats, *Do Dirty Industries Migrate?*, in *INTERNATIONAL TRADE AND THE ENVIRONMENT* 89 (Patrick Low ed., World Bank Discussion Paper No. 159, 1992). But see Esty, *Federalism*, *supra* note 17 (explaining why past studies may have missed competitiveness effects).

27. See, e.g., Communication to the Council and to the Parliament on Trade and Environment, Section 2.2, in *EUROPE ENVIRONMENT*, Mar. 19, 1996, at 4, 9.

28. See, e.g., Opinion of Advocate General Tesauro in Case C-300/89, *Commission v. Belgium*, 1991 E.C.R. I-2867 (explaining that, in Titanium dioxide industry, "anti-pollution rules had a direct impact on prices in the various Member States of between 10 and 20% in 1984 and that price divergences had increased between 1984 and 1989."); OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE, *REVIEW OF U.S.-MEXICO ENVIRONMENTAL ISSUES* 166 (1992).

29. See EPA, *ENVIRONMENTAL INVESTMENTS: THE COST OF A CLEAN ENVIRONMENT* xi (1990).

30. See, e.g., Joe A. Stone, *Price Elasticities of Demand for Imports and Exports: Industry Estimates for the U.S., the E.E.C., and Japan*, 61 *REV. ECON. & STAT.* 305 (1979) (estimating price elasticities for various commodities groups).

31. See, e.g., Michael Porter & Claas van der Linde, *Green and Competitive*, *HARV. BUS. REV.*, Sept.-Oct. 1995, at 120.



Finally, increased economic competition across jurisdictions may have an effect on environmental policymaking. Government officials facing the prospect of reduced sales, lost jobs, and diminished investments in domestic industries caused by competition with companies whose costs are lower due to more lax environmental requirements, may choose not to elevate environmental standards, or may even relax enforcement of current standards. This environmental policy dynamic, known as the "race to the bottom,"<sup>32</sup> has been described as "a race from the desirable levels of environmental quality that states would pursue if they did not face competition for industry to the increasingly undesirable levels that they choose in the face of such competition."<sup>33</sup> In fact, governments rarely lower standards. The real effect is one of "political drag" or "regulatory chill," making it difficult for governments to move toward optimal environmental policies.<sup>34</sup>

### III. THE RESPONSES

Various responses to the trade and environment concerns outlined above have been advanced by lawyers,<sup>35</sup> economists,<sup>36</sup> environmentalists,<sup>37</sup> and government officials.<sup>38</sup> These responses range

32. Note that the "race" is not really *to* the bottom but rather *toward* the bottom. The downward pressure on standards may simply drive them to sub-optimal levels, not necessarily to the point of no regulation. See Esty, *Federalism*, *supra* note 17, at n.135.

33. Revesz, *supra* note 17, at 1210.

34. For a more complete discussion, see ESTY, *GREENING THE GATT*, *supra* note 8, at 162-63 (discussing the political drag dynamic); see also Stewart, *Environmental Regulation*, *supra* note 24.

35. See, e.g., Damien Geradin, *Trade and Environmental Protection: Community Harmonization and National Environmental Standards*, 13 Y.B. EUR. L. 151 (1993) [hereinafter Geradin, *Community Harmonization*]; David Palmeter, *Environment and Trade: Much Ado about Little?*, J. WORLD TRADE, June 1993, at 55, 56-70 (1993).

36. See, e.g., ENVIRONMENTAL POLICY WITH POLITICAL AND ECONOMIC INTEGRATION: THE EUROPEAN UNION AND THE UNITED STATES (John B. Braden et al. eds., 1996); THE GREENING OF WORLD TRADE ISSUES (Kym Anderson & Richard Blackhurst eds., 1992); Jagdish Bhagwati, *Trade and the Environment: The False Conflict?*, in Zaelke, *supra* note 8, at 159 [hereinafter Bhagwati, *False Conflict*].

37. See, e.g., Steve Charnovitz, *Free Trade, Green Trade*, 27 CORNELL INT'L. L.J. 459 (1994); Zaelke, *supra* note 8; Stuart Hudson, *Trade, Environment and the Pursuit of Sustainable Development*, in INTERNATIONAL TRADE AND THE ENVIRONMENT, *supra* note 26, at 55-64.

38. See, e.g., Peter L. Lallas et al., *Environmental Protection and International Trade: Toward Mutually Supportive Rules and Policies*, 16 HARV. ENVT'L. L. REV. 271 (1992); Daniel Magraw, *NAFTA's Repercussions: Is Green Trade Possible?*, ENV'T, Mar. 1994, at 14.

from a "laissez-faire" approach, which relies on the "invisible hand" of the market to resolve trade-environment conflicts, to total harmonization strategies, which mandate identical standards across jurisdictions.

### A. *Laissez-Faire*

One response to the market access and competitiveness concerns outlined above is to do nothing and let each jurisdiction regulate as it sees fit. In fact, many trade economists argue that competitiveness concerns simply reflect differences in circumstances and preferences playing out in the marketplace and deserve no more attention than differences in wage levels.<sup>39</sup> More dramatically, some theorists (and most economists) suggest that attempts to mitigate or eliminate diversity in process standards will reduce social welfare by eliminating a dimension of comparative advantage and thereby reducing the benefits of specialized production and trade.<sup>40</sup> A laissez-faire approach is likely to yield poor results, however, if varying environmental process standards do not reflect differences in circumstances, or if the variations trigger strategic behavior in policymaking and a race toward the bottom. Specifically, while economic welfare may be advanced, the welfare losses from environmental degradation will reduce the net gains, leaving society worse off.<sup>41</sup>

In addition, where transboundary environmental harms exist, decentralized (state-by-state) regulation may not produce optimal outcomes. Because government authorities tend to ignore harms that fall outside their jurisdiction, the regulatory cost-benefit calculus is skewed and governments systematically select levels of

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39. See, e.g., Kym Anderson, *The Standard Welfare Economics of Policies Affecting Trade and the Environment*, in *THE GREENING OF WORLD TRADE ISSUES* (Kym Anderson & Richard Blackhurst eds., 1992); Bhagwati & Srinivasan, *supra* note 16.

40. See LEONARD, *supra* note 26, at 8 ("The classical law of comparative advantage sought to demonstrate that productive resources in all countries will be more efficiently employed if each country, through the exchange of goods and raw materials, specialized in producing the few goods and raw materials that it could produce most proficiently."); see also Robert Mendelsohn, *Regulating Heterogeneous Emissions*, 13 J. ENVTL. ECON. & MGMT. 301 (1986); Bhagwati & Srinivasan, *supra* note 16.

41. See Esty, *Federalism*, *supra* note 17, at 629-31 (explaining why suboptimal results emerge from the race to the bottom dynamic); see also Edith Brown Weiss, *Environmentally Sustainable Competitiveness: A Comment*, 102 YALE L.J. 8 (1993).

environmental protection which are regionally detrimental.<sup>42</sup> The pollution externalities create the need for some form of collective action to avoid market failure and allocative inefficiency. At the very least, a regime that allows for the clarification and vindication of the rights of those who suffer pollution spillovers must be established.<sup>43</sup>

The laissez-faire response also fails to guard against protectionist abuses of product standards. Absent a mechanism for unmasking barriers to trade disguised as environmental rules, markets may be unfairly closed to imports, triggering reciprocal barriers around the world.<sup>44</sup> Indeed, the rules of international trade are largely focused on disciplining such attempts to seize an advantage in the marketplace at the expense of one's competitors.<sup>45</sup>

### *B. Enforcement Commitments*

A more sophisticated form of the laissez-faire approach would entail adopting a trade agreement with provisions calling for the rigorous enforcement by the parties of their respective national environmental rules. Such an approach, which can be found in NAFTA's environmental side agreement,<sup>46</sup> does nothing to ensure market access. But the commitment to full enforcement of national laws may help to ease competitiveness tensions by preventing unfair derogations from basic environmental standards that might trigger a race toward the bottom in environmental policymaking. This relatively non-interventionist strategy, furthermore, allows standards to be tailored to each country's individual circumstances and needs.

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42. See MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965); Esty, *Federalism*, *supra* note 17, at 587-89 (discussing "structural" flaws in environmental regulation).

43. See Esty, *Federalism*, *supra* note 17 at 583-84 (Chart A reviews why regulation improves results, advancing both equity and efficiency).

44. See Kevin C. Kennedy, *Reforming U.S. Trade Policy to Protect the Global Environment: A Multilateral Approach*, 18 HARV. ENVTL. L. REV. 185 (1994) (suggesting methods of ensuring that trade sanctions reach environmental goals).

45. See, e.g., JOHN H. JACKSON, *THE WORLD TRADING SYSTEM: LAW AND POLICY OF INTERNATIONAL ECONOMIC RELATIONS* (1992) [hereinafter JACKSON, *TRADING SYSTEM*].

46. See *infra* text accompanying notes 225-232.

### C. Mutual Recognition

Mutual recognition—that is, the principle that a product that complies with the exporting country's standards should circulate freely within the territory of its trading partners—offers a mechanism to address market access concerns. This principle, which for many was exemplified by the removal of barriers to trade and the completion of the internal market in the EC, presents several advantages. Pursuant to mutual recognition, manufacturers no longer need to adapt products to satisfy varying standards applied in each of the countries of destination.<sup>47</sup> Instead, they need only display proof that their products satisfy their home market standards. Satisfaction of only one set of standards reduces the regulatory burden and allows manufacturers to achieve scale economies across multiple jurisdictions.

Despite such advantages, the principle of mutual recognition is generally insufficient to the task of alleviating environmental-policy-derived market access concerns.<sup>48</sup> Notably, mutual recognition only works among jurisdictions having relatively homogeneous standards. Importing countries only accept “foreign” standards when they believe that the requirements of the exporting country offer a level of protection comparable to their own standards.<sup>49</sup> Mutual recognition is therefore an appropriate strategy to eliminate barriers to trade created by minor differences among technical standards across jurisdictions. By contrast, when serious disparities among standards exist, as is often the case in the environmental field, other tools will be needed to integrate markets. As will be seen in the following sections, such tools may include selective invalidation of trade-restrictive environmental standards and harmonization of environmental product standards.

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47. See ALAN O. SYKES, *PRODUCT STANDARDS FOR INTERNATIONALLY INTEGRATED GOODS MARKETS* 50 (1995) (explaining benefits of mutual recognition).

48. See *id.*

49. In this regard, it is important to note that, in its so-called “Cassis de Dijon” judgment, Case 120/78, *Rewe-Zentrale AG v. Bundesmonopolverwaltung für Branntwein*, 1979 E.C.R. 649, the European Court of Justice indicated that the principle of mutual recognition is inapplicable if the standards of the Member State of export are insufficient to ensure an adequate level of protection.

*D. Trade Restrictions and Subsidies*

To respond to competitiveness concerns, some policymakers, and a number of industry and environmental interest groups, have called for the use of trade restrictions to penalize products from jurisdictions that apply lax environmental standards.<sup>50</sup> If, for example, cement produced in the United States costs thirty percent more to make due to pollution controls than cement from Mexico (where environmental requirements are generally less stringent), they argue that the United States should impose a thirty percent “eco-duty” on Mexican cement. The rationale for imposing such charges on imported goods is that any cost differential arising from lower standards is unfair and distorts the price at which a product enters the marketplace. Even more radical is the call for a trade ban on products produced under conditions that do not meet the standards of the importing country.<sup>51</sup>

Free traders object vehemently to the use of eco-duties, arguing that such policy instruments, far from equalizing the terms of trade, actually distort trade relationships by eliminating the comparative advantage of countries that choose to set less stringent environmental standards due to their national circumstances.<sup>52</sup> Many trade theorists also suggest that any broad-based program of eco-duties would likely be captured by protectionists and would lead to mischief and inefficiency.<sup>53</sup> Other critics note that it is difficult to evaluate cost differentials and, hence, to apply such eco-duties properly.<sup>54</sup>

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50. See, e.g., *Baucus Proposes GATT Environmental Code to Offset Effect of Lax Standards*, INSIDE U.S. TRADE, Sept. 20, 1991, at 14; *Gephardt, Dole Form Industry Advisory Panel on Uruguay Round*, INSIDE U.S. TRADE, Dec. 3, 1993, at 18; Guy De Jonquieres, *WTO Chief Fears Wave of Protectionism*, FIN. TIMES, July 7, 1995, at 5.

51. See ROSS PEROT, *SAVE YOUR JOB, SAVE OUR COUNTRY: WHY NAFTA MUST BE STOPPED—Now!* 109 (1993) (“The standard is simple: products cannot be imported into the United States from Mexico that are produced in factories or by companies that violate either U.S. or Mexican environmental standards. No exceptions . . . That’s America’s sovereign right!”).

52. See, e.g., Robert E. Hudec, *Differences in National Environmental Standards: The Level-Playing-Field Dimension*, 5 MINN. J. GLOBAL TRADE 1, 21–23 (1996); Bhagwati, *False Conflict*, *supra* note 36, at 166–68.

53. See John J. Barceló III, *Countervailing Against Environmental Subsidies*, 23 CAN. BUS. L.J. 3 (1994).

54. See Richard B. Stewart, *International Trade and Environment: Lessons from the Federal Experience*, 49 WASH. & LEE L. REV. 1329 (1992); see also Palmeto, *supra* note 35, at 55, 57 (calling eco-duties a “practical, if not theoretical, quagmire”).

More fundamentally, trade restrictions conflict with the spirit of cooperation that is the essence of free trade agreements. Such agreements, particularly among regional partners, must be premised on a sense of confidence in the basic values, democratic institutions, and governmental integrity of the other parties.<sup>55</sup> The greater the degree of integration, the stronger this baseline confidence must be. Absent such confidence and a sense of shared values, the willingness to keep one's market open erodes.<sup>56</sup>

Disruptive effects arising from differences in environmental standards might also be addressed by "green" subsidies.<sup>57</sup> Governments that fear that their producers will be disadvantaged in markets with competitors with less strict pollution control obligations could subsidize the environmental investments made by their companies, thereby eliminating any pollution control cost differentials. Traditional thinking suggests that the use of subsidies to offset pollution costs borne by one's own industries is less offensive and less disruptive to an open trading system than comparable eco-duties.<sup>58</sup>

Recent thinking, however, casts doubt on the benign character of eco-subsidies.<sup>59</sup> First, subsidizing polluters violates the Polluter Pays Principle,<sup>60</sup> an accepted standard of good environmental policy.<sup>61</sup> Although environmental subsidies eliminate pollution control

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55. The creation of a national market in the United States, for example, was undergirded by the New Deal's federal regulatory structure and the common national values it represented. *See* BRUCE A. ACKERMAN, *WE THE PEOPLE* (1991); *see also*, Opinion of Advocate General Van Gerven in Case C-169/89, *Criminal Proceedings Against Gourmetterie Van den Burg*, 1990 E.C.R. I-2143 (arguing that trade restrictions unilaterally imposed by one Member State in connection with the hunting of animals in another Member State were difficult to reconcile with the principle of mutual confidence between Member States).

56. *See* Esty, *Federalism*, *supra* note 17, at 643-44 (explaining why common "moral baselines for economic interactions" are necessary in a regime of free trade); *see also infra* text accompanying notes 124-127.

57. *See generally* ESTY, *GREENING THE GATT*, *supra* note 8, at 169-71.

58. Indeed, the GATT Uruguay Round Agreement on Subsidies and Countervailing Measures authorizes the use of subsidies to support environmental investment to some extent. *See* Final Act, *supra* note 3, at Annex IA, art. 8.2(c).

59. A number of U.S. business interests, for example, raised objections to the Uruguay Round green subsidy provision. *See GATT Environmental Subsidy Provision Angers U.S. Manufacturers*, *INSIDE U.S. TRADE*, Jan. 7, 1994, at 8.

60. *See* ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *THE POLLUTER PAYS PRINCIPLE: DEFINITION, ANALYSIS, IMPLEMENTATION* 30-31 (1975). For general information on the "Polluter Pays Principle" and its application in the EC, *see* Karen Vanderkerckhove, *The Polluter Pays Principle in the European Community*, 13 *Y.B. EUR. L.* 201 (1993).

61. *See* United Nations Conference on Environment and Development, Rio Decla-

cost differentials, they discourage domestic innovation. By subsidizing the purchase of pollution control equipment, governments lower the cost of production and thus of the products made, thereby dulling the incentive for producers and consumers to look for less environmentally damaging substitute processes or products.<sup>62</sup> Second, environmental subsidies can easily be abused by governments looking for clever ways to advance the competitive position of their industries in the global marketplace.<sup>63</sup> Indeed, subsidies are increasingly the tool of choice for governments seeking to lure industry. But the financial packages offered by one jurisdiction may be matched by others, starting another form of the race toward the bottom. The end result of such a bidding process may be that governments give away whatever benefits—especially tax revenues—might have been produced by the new project.<sup>64</sup> Because of the adverse effects that may be created by subsidies, the EC has instituted strict controls on the types of subsidies that Member States can offer in an attempt to influence a company's locational decision.<sup>65</sup>

In sum, although trade restrictions, eco-duties, and eco-subsidies may help to blunt competitiveness tensions, they do nothing to keep markets open. In most circumstances, any gain in avoiding the suboptimal consequences of a race toward the bottom will

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ration on Environment and Development, Principle 16, 31 I.L.M. 874, 879 (1992); *see also* EC TREATY, *supra* note 4, at art. 130r(2).

62. *See* ESTY, GREENING THE GATT, *supra* note 8, at 170.

63. It is often hard to tell whether upgrading particular facilities is really about environmental protection or competitive positioning. This is true, for example, in the context of upgrading steel mills with modern, less-polluting, furnaces. Although GATT 1994 permits limited green subsidies, the government funds provided must be "directly linked and proportionate" to the environmental goal at stake. *See* Final Act, *supra* note 3, at Annex 1A, art. 8.2(c).

64. *See, e.g.,* Allen R. Myerson, *O Governor, won't you buy me a Mercedes Plant?*, N.Y. TIMES, Sept. 1, 1996, at C1. Of course, if the subsidies all go to environmental investments, the result might not be suboptimal but rather might simply represent a reallocation of public resources toward environmental protection.

65. Article 92.1 of the EC Treaty provides that "[s]ave as otherwise provided in this Treaty, any aid granted by a Member State or through Member States resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market." State subsidies for environmental protection are, however, allowed in a number of circumstances. *See* Community Guidelines on State Aids for Environmental Protection, 1994 O.J. (C 72) 3. For discussions of the compatibility of environmental subsidies with EC law *see, e.g.,* Luc Gyselen, *The Emerging Interface between Competition Policy and Environmental Policy in the EC*, in Cameron, *supra* note 8; Scott Budlong, *Article 130r(2) and the Permissibility of State Aids for Environmental Compliance in the EC*, 30 COLUM. J. TRANSNAT'L L. 431 (1992).

come at a high price in terms of trade disruption. In some cases (e.g., where parties are violating multilateral environmental agreements and free-riding on the environmental efforts of others), the environmental issues at stake will justify the intervention. But, as we discuss below, there may be less trade-intrusive ways to achieve comparable environmental results.

### *E. Judicial Bounding*

Regional trade agreements generally contain provisions designed to permit the selective invalidation of trade-restrictive environmental regulations.<sup>66</sup> These market-access-protecting mechanisms, which we call “judicial bounding,” give a judicial or quasi-judicial body the power to strike down protectionist “environmental” measures and, in some cases, those measures which unacceptably disrupt trade, even absent protectionist intent.<sup>67</sup>

One advantage of judicial bounding as a tool for balancing competing trade and environmental goals is its flexibility. Judges or panelists do not usually apply trade disciplines strictly, but attempt to weigh trade liberalization objectives against other aims such as environmental protection.<sup>68</sup> There are, however, clear limitations on the exclusive reliance on courts or trade panels to unify markets and, simultaneously, to uphold environmental standards. First, judicial decisions essentially have a negative or corrective effect: they can only remove specific obstacles to trade, not prevent such obstacles from arising.<sup>69</sup> This is a particularly serious shortcoming in the area of product standards. Because of growing con-

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66. For example, Article 30 of the EC Treaty prohibits Member States from adopting quantitative restrictions and measures having equivalent effect. *See infra* text accompanying notes 124–127. Similarly, Chapters 7 and 9 of NAFTA impose some disciplines on the regulatory practices of NAFTA parties. *See infra* text accompanying notes 194–216.

67. For example, Article 30 of the EC Treaty has been interpreted broadly by the European Court of Justice to cover both discriminatory (i.e., protectionist) and nondiscriminatory environmental standards affecting trade. *See infra* text accompanying note 212.

68. *See* DAMIEN GERADIN, *TRADE AND THE ENVIRONMENT: A COMPARATIVE STUDY OF EC AND US LAW* (forthcoming Sept. 1997) [hereinafter GERADIN, *COMPARATIVE STUDY*].

69. *See* Cass Sunstein, *Protectionism, the American Supreme Court, and Integrated Markets*, in 1992: ONE EUROPEAN MARKET 127, 141 (Bieber et al. eds., 1988). (“[C]ourts are passive; they do not initiate the lawsuits they decide. By contrast, legislatures can stem a problem before it starts. If interferences with free trade . . . are widespread, this distinction may assume great importance.”). Of course, the accumulation of precedent has



sumer demands for environmental quality, governments are enacting an increasing number of regulations governing the environmental characteristics of products, including requirements that mandate the degree of recyclability or biodegradability of a product, the permitted environmental impact of its components, or the size, weight, and content of its packaging.<sup>70</sup> These requirements may handicap foreign producers who must spend months or years (and untold resources on lawyers) to challenge the rules on the grounds that they are crafted to advantage domestic products.<sup>71</sup> Ultimately, collective action in the form of harmonized product standards appears to be a surer and swifter strategy than selective judicial invalidation of trade-restrictive environmental measures.<sup>72</sup>

Second, from the perspective of those interested in environmental protection, selective judicial invalidation of laws and regulations appears to permit international trade principles to trump national environmental policy choices. This sense of injustice increases where the deciding body or judge comes from a trade-oriented institution, lacks democratic legitimacy or environmental authoritativeness, and operates without adequate public scrutiny and transparency.<sup>73</sup> Thus, while there is little domestic outcry when the U.S. Supreme Court

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an instructive dimension, framing expectations and behavior for the future. See James Cameron, Remarks Made at Liège Conference on Regional Trade Agreements (Oct. 1996); STEPHEN WHEATHERILL & PAUL BEAUMONT, EC LAW 419 (1993):

The Court [of Justice] can influence the nature of legitimate national action through its interpretation of the scope of [EC free movement rules], yet its activity is typically in response to national practice. It cannot intervene directly to set common standards in advance. Harmonization is an altogether more positive contribution to the development of the Community and the common regulation of the single economic space.

*Id.*

70. The Code of Federal Regulations relating to the environment now stretches to eighteen volumes. See 40 C.F.R. § 9.1 (1996). The EC has adopted more than 200 environmental directives in the last 15 years, many of which are product-related. See *infra* notes 138–142, 227.

71. See, e.g., ESTY, GREENING THE GATT, *supra* note 8, at 257–74 (Appendix C lists notable cases including Danish Bottles, Ontario Beer, and Tuna-Dolphin cases).

72. For a complete discussion of the benefits of harmonization, see discussion *infra* Part III.F.

73. See Patti Goldman, *Resolving the Trade and Environment Debate: In Search of a Neutral Forum and Neutral Principles*, 49 WASH. & LEE L. REV. 1279, 1283–89 (1992) [hereinafter Goldman, *Resolving*] (discussing lack of public access to trade negotiations); see also Lewis Rosman, *Public Participation in International Pesticide Regulation: When the Codes Commission Decides, Who Will Listen?* 12 VA. ENVTL. L.J. 329 (1993) (discussing the necessity of public participation in U.S. pesticide regulation).

invalidates U.S. state environmental laws as burdens on interstate commerce,<sup>74</sup> when NAFTA or WTO authorities do the same thing, it produces outrage.<sup>75</sup>

### F. Harmonization

Another way to deal with both market access and competitiveness concerns is harmonization of environmental standards. In contrast to the judicial bounding approach discussed above, which operates retrospectively, the harmonization of regulatory requirements functions prospectively and thus helps to prevent conflicts from occurring. While differences in standards across jurisdictions will increase social welfare when they reflect varying local conditions, common or similar standards produce administrative advantages that will sometimes yield better overall results.<sup>76</sup> Trade officials and economists too often dismiss "harmonization" as inefficient, treating *total* harmonization of standards as if it were the only available policy option.<sup>77</sup> This section discusses a more refined set of harmonization approaches which allow some of the benefits of diversity and, at the same time, permit some of the advantages of coordinated policy.

Harmonization strategies fall into two groups. First, a number of techniques respond to market access concerns. In particular, they coordinate environmental *product* standards and thereby reduce barriers to market entry. Other harmonization techniques address com-

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74. For discussions of such cases, see Richard B. Stewart, *Interstate Commerce, Environmental Protection, and U.S. Federal Law*, in Cameron, *supra* note 8, at 342; Damien Geradin, *Free Trade and Environmental Protection in an Integrated Market: A Survey of the Case Law of the United States Supreme Court and the European Court of Justice*, 2 J. TRANSNAT'L L. & POL'Y 141 (1993).

75. See, e.g., the environmental reaction to the GATT tuna dolphin decision. See ESTY, GREENING THE GATT, *supra* note 8, at 34-35.

76. See, e.g., RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 367-70 (4th ed. 1992) (arguing that the benefits of regulatory particularization outweigh the costs); see generally Mendelsohn, *supra* note 40 (suggesting how regulations should adapt to differences in damage caused by emissions).

77. See, e.g., C&A Carbone, Inc. v. Clarkstown, 511 U.S. 383 (1994); Fort Gratiot Sanitary Landfill, Inc. v. Michigan Dep't of Natural Resources, 504 U.S. 353 (1992); Philadelphia v. New Jersey, 437 U.S. 617 (1978). For discussions of these cases, see Jagdish Bhagwati, *The Demands to Reduce Domestic Diversity among Trading Nations*, in 1 FAIR TRADE AND HARMONIZATION: PREREQUISITES FOR FREE TRADE? 9 (Jagdish Bhagwati & Robert E. Hudec eds., 1996) (explaining why the motivations behind demands for harmonization are misconceived).

petitiveness concerns by regulating production *processes* or methods. In narrowing the gap between the environmental requirements that producers in high-standard jurisdictions are required to meet and those that companies operating under more lax conditions face, these approaches can minimize the risk of a race toward the bottom in environmental policymaking.

### *1. Market Access*

Market access can be promoted through various forms of harmonization. These include: (a) uniform standards; (b) maximum standards; (c) international standards; (d) essential requirements harmonization; (e) pre-standard harmonization; and (f) public information harmonization.

#### *a. Uniformity of Standards or Total Harmonization*

Total harmonization suggests the adoption of uniform standards across all jurisdictions. Each regulating authority implements exactly the same environmental requirements.<sup>78</sup> Neither higher nor lower standards are permitted. There are several advantages to total harmonization. First, uniform product standards prevent market fragmentation and allow producers to realize economies of scale in design and production.<sup>79</sup> Second, total harmonization prevents confusion about which rules apply. Because everyone must adhere to the same standards, any deviation can be detected easily.<sup>80</sup> Third, this form of harmonization also facilitates regulatory economies of scale, allowing officials in different jurisdictions to share data, policy strategies, and enforcement techniques.<sup>81</sup> Finally, there may be some administrative gains from “network effects” that arise where adherence to a common standard allows efficiency in developing control technologies, training programs, legal systems, or

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78. See, e.g., James E. Krier, *The Irrational National Air Quality Standards: Macro- and Micro-Mistakes*, 22 UCLA L. REV. 323, 324–25 (1974) (describing uniform air quality standards under Clean Air Amendments).

79. Cf. SYKES, *supra* note 47, at 28–30; GERADIN, *COMPARATIVE STUDY*, *supra* note 68.

80. Cf. ESTY, *GREENING THE GATT*, *supra* note 8, at 173–74 (discussing how total harmonization may support both environmental protection and trade liberalization).

81. See *id.*

any other aspect of an environmental regime that would otherwise consume resources in each jurisdiction individually.<sup>82</sup>

These advantages, however, come at a high price. A single standard across all jurisdictions does not allow governments to tailor requirements to local needs, circumstances, or preferences. To the extent that the world is heterogeneous, single standards have a tendency to reduce welfare.<sup>83</sup> Under conditions of relative homogeneity, however, the efficiency advantages of uniform standards may outweigh the losses that arise from ignoring diversity in conditions and values.

*b. Maximum Standards*

In contrast to uniform rules, maximum standards impose a ceiling on the stringency of environmental requirements. Maximum *product* standards promote freer trade because diminished variations in product requirements facilitate the entry of companies into new markets.<sup>84</sup> Exporting companies are assured, moreover, that national rules will not be contorted to the advantage of domestic producers. Because governments are free to apply more lax standards, however, maximum standards provide no guarantee against environmental degradation arising because some jurisdictions adopt suboptimal standards.

In the United States, the federal government “caps” state regulation in a number of areas. For example, states may adopt the more stringent “California” auto emissions standards for cars, but may not exceed federally established “tailpipe” requirements.<sup>85</sup> EC legislation sometimes provides for “optional harmonization,”<sup>86</sup> which offers manufacturers an option to follow either harmonized EC standards or the relevant national standard. In effect, the EC requirement becomes a maximum standard for traded goods since member states have to permit the importation of any product meeting the harmonized standard.

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82. See Esty, *Federalism*, *supra* note 17, at 619–20 (explaining potential gains from network effects).

83. See, e.g., Mendelsohn, *supra* note 40 (demonstrating why differences in circumstances call for differences in standards).

84. See generally SYKES, *supra* note 47 (analyzing the effects of common standards).

85. See 42 U.S.C. § 7543 (1994).

86. See Piet Jan Slot, *Harmonisation*, 21 EUROPEAN L. REV. 378, 383 (1996).

*c. International Standards*

Another way of ensuring that governments do not engage in regulatory mischief to advantage domestic producers is by establishing the principle that any imported product meeting identified international standards, such as the International Organization for Standardization ("ISO") or Codex Alimentarius standards, must be permitted entry to the marketplace. A softer version of this same principle would establish a rebuttable presumption that products which conform to international standards should be allowed entry. A jurisdiction might then be allowed to set higher standards only if it could demonstrate an environmental purpose and a scientific basis for the level of protection selected, and it could show that there was no intent to discriminate against imported products.

There are a number of advantages to using international benchmarks. Notably, the rules are clear. Regulators do not have to gather data, analyze harms, or establish standards; they simply borrow the existing requirements. But there are some disadvantages as well. Because of the difficulties of reaching agreement in a multilateral setting, international standards often represent the lowest common denominator.<sup>87</sup> They may not be entirely appropriate for the jurisdictions that "borrow" them. In some cases, they will be too permissive; in others, too restrictive. In addition, international standards are generally adopted without adequate public input.<sup>88</sup>

*d. Essential Requirements Harmonization*

By limiting coordination efforts to a core set of essential environmental requirements, trade regimes gain much of the benefit of harmonization with less administrative burden. The creation of the detailed technical regulations necessary to achieve those basic requirements is generally left to individual jurisdictions or, as in the EC context, standardization organizations.<sup>89</sup> The principal ad-

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87. See PATTI GOLDMAN & RICHARD WILES, *TRADING AWAY U.S. FOOD SAFETY* (Public Citizen and the Environmental Working Group, 1994) (reviewing the harms of international harmonization).

88. See *supra* note 73.

89. It should be noted that in the EC essential requirements harmonization has been used as a complement to mutual recognition. As indicated above, mutual recognition only works if standards among countries are relatively homogeneous. See discussion *supra* at Part III.C. Hence, to avoid disparities between the standards of Member States, the EC

vantage of this approach is that it permits some regulatory diversity and yields some of the benefits of uniform standards. This form of partial harmonization may promote consensus among states on key environmental goals and thus lead to an optimal degree of harmonization.

*e. Pre-Standard Harmonization*

Many of the benefits of product standard harmonization can be achieved if jurisdictions coordinate their regulatory systems so that they use common data collection processes, testing protocols, scientific methodologies, and risk assessment procedures. The OECD Chemicals group, for example, coordinates the exchange of data and test results on potentially hazardous chemicals, facilitating national standard setting.<sup>90</sup> This type of harmonization may offer cost savings for companies operating in multiple jurisdictions. For example, a pesticide maker that has met the testing requirements for selling its product in the German market would be able to have regulatory judgments made by French authorities on the basis of the data from Germany. With adequate quality controls, such an inter-jurisdictional system of mutual recognition ensures that the company does not need to go through additional years of product testing and re-proving, thereby speeding market entry and reducing the cost of regulatory review.<sup>91</sup> Because one of the stumbling blocks to good environmental protection is the dearth of good science and analytic work upon which to base regulations, ensuring that the technical efforts of one country are made available to other countries is an important step forward. Because pre-standard harmonization makes sense for both regulators and regulated entities, it offers one of the most promising avenues for responding to market access pressures.

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has proceeded to harmonize the "essential requirements" that must be met by products in order to circulate freely in the Community. *See infra* text accompanying notes 145-150.

90. *See* ESTY, GREENING THE GATT, *supra* note 8, at 178.

91. Common approaches can also expand the market for testing equipment, reducing the cost of regulation. *See id.* at 109-10 (discussing difficulty of sending venture capital into the environmental field because of the fragmented markets).

### *f. Public Information Harmonization*

A final type of harmonization focuses on the information that the public is provided about the environmental qualities of products. If a common "eco-label" were developed for all states that are parties to a trade agreement, companies would not have to go through separate analysis and label-development processes for each market.<sup>92</sup> In addition, consumers would become well-versed in a specific set of environmental criteria and better able to make informed judgments. In fact, efforts are underway in the EU to set up a common eco-labelling scheme.<sup>93</sup>

## *2. Competitiveness*

Harmonization is also available as a tool to respond to competitiveness tensions that arise when jurisdictions within a free trade agreement have varying environmental requirements, especially differing PPM standards that translate into differences in cost structures for industry.<sup>94</sup> Again, a diverse set of harmonization techniques are available including: (a) minimum standards; (b) multilateral agreements; (c) multi-tier requirements; (d) convergence of standards; (e) differentiated standards; (f) goal harmonization; (g) standardization of options; and (h) systems harmonization.

### *a. Minimum Standards*

Minimum production process or method standards set a regulatory floor below which no jurisdiction can go. Such standards ensure that all governments require at least a baseline level of

92. See, e.g., Elliot B. Staffin, *Trade Barrier or Trade Boon? A Critical Evaluation of Environmental Labeling and its Role in the "Greening" of World Trade*, 21 COLUM. J. ENVTL. L. 205, 281 (1996) (noting need to "harmonize certain eco-labeling standards").

93. But note that the EU scheme has gotten off to a slow start and does not preempt national eco-labels. Member states with well-established programs (e.g., Germany's Blue Angel, Scandinavian White Swan) worry that the credibility of their existing systems will be diminished in a Europeanized eco-labeling regime. See Ray V. Hartwell III & Lucas Bergkamp, *Eco-labelling in Europe: New Markets—Related Environmental Risks?*, 15 Int'l Env't Rep. (BNA) 629 (Sept. 23, 1992); *Commission Seeks Outside Consultant to Help Beleaguered Eco-labelling Program*, 19 Int'l Env't Rep. (BNA) 536 (June 26, 1996).

94. Note that *product* standards are generally less of a concern in the competitiveness context. As long as they are not discriminatory or a disguised barrier to trade, high product standards impose the same requirements on domestic as well as imported goods, so local industry is not advantaged.

environmental protection from their industries. Under a program of minimum standards, jurisdictions remain free to impose more stringent requirements. By reducing environmental compliance cost differentials across jurisdictions, minimum standards constrain the possibility of distortions of competition, industrial relocation, and a race toward the bottom.<sup>95</sup> Indeed, game theory suggests that mechanisms which promote cooperation, such as minimum standards, may diminish strategic behavior and thereby reduce the risk that interjurisdictional competition will yield suboptimal results.<sup>96</sup> A regime of minimum standards allows for some tailoring to meet local conditions, but does not allow for unlimited variations in environmental requirements. This approach provides some of the benefits of uniform standards, such as opportunities for scale economies in the administration of environmental regulations, without surrendering all of the welfare gains of standards that match local requirements.

*b. Multilateral Agreement*

Requiring all countries to meet public health or ecological standards established by multilateral environmental agreements ("MEAs") also serves to prevent a race toward the bottom in environmental policy. Mandatory standards established by MEAs, more importantly, prevent "free riding" by some countries on the environmental efforts of others. The Montreal Protocol, for example, mandates a phase-out of chlorofluorocarbons ("CFCs") and other chemicals that deplete the ozone layer. In doing so, it ensures that producers who follow the phase-out and employ more expensive CFC substitutes are not disadvantaged in the marketplace by having to compete with other producers whose costs are lower because they are not following the ozone protection scheme.<sup>97</sup> Such disciplines are especially important where harms might spill across

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95. Cf. ECKARD REHBINDER & RICHARD STEWART, ENVIRONMENTAL PROTECTION POLICY: LEGAL INTEGRATION IN THE UNITED STATES AND THE EUROPEAN COMMUNITY 210-11 (1988).

96. See AVINASH DIXIT & BARRY NALEBUFF, THINKING STRATEGICALLY 89-118 (discussing mechanisms to facilitate cooperation through repeated games).

97. See DUNCAN BRACK, INTERNATIONAL TRADE AND THE MONTREAL PROTOCOL 61-63 (1996) (discussing how international environmental standards prevent free-riding).



national boundaries or where contested resources represent a "global commons."

*c. Multi-Tier Harmonization*

Multi-tier regulatory regimes with different standards for different groups of states also obtain some of the benefits of standards tailored to local conditions without losing all of the advantages of uniform requirements. Because one of the most important variables determining the optimal level of environmental protection is a state's wealth and level of economic development, a system of unified standards for those states at comparable levels of development may prove quite valuable. One could imagine, for example, a set of environmental standards developed for the most economically advanced states that would require quite a high degree of environmental protection. A second set of standards, with more modest requirements, might be established for industrializing countries that have a great need for environmental protection but cannot afford high-level standards. Finally, a baseline set of standards could be defined for the least developed nations whose economic positions are so modest that they could not meet anything more than a limited set of environmental goals, and whose capacity to develop their own regulatory regimes is limited. Such a multi-tier system would provide for economies of scale and network effects among the countries within each regulatory tier. At the same time, the existence of multiple tiers would ensure that standards would at least roughly correspond to countries' individualized needs.<sup>98</sup>

Such a program would also allow states to "graduate" into higher degrees of environmental protection as they develop. Because of their capacity to respond to some degree to diversity in circumstances without losing all of the benefits of harmonization, multi-tier standards offer particular promise as a tool for environmental policy in the international domain. The Montreal Protocol provides for two tiers of compliance. OECD countries phased out their production of CFCs in 1995, but developing countries have

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98. Multi-tier standards could also be developed to correspond to varying baseline conditions. Under such a regime, jurisdictions with fast-moving rivers might permit more effluent to be discharged than those with waterways that have lower assimilative capacities.

an extra ten years to complete their phase-outs.<sup>99</sup> The Dutch government has proposed a similar multi-tier approach to address the difficult issue of the allocation of greenhouse gas emissions reductions in the EC.<sup>100</sup>

*d. Convergence of Standards*

Another response to harmful competitive pressures created by varying environmental standards would be to promote a negotiated convergence of standards across jurisdictions. Eliminating wide variations in environmental standards would limit the risk of a race toward the bottom because the capacity to lure investment with very low standards is constrained. This “convergence” of requirements—perhaps through a regime of both maximum and minimum standards—would provide for some administrative efficiency while still permitting environmental programs to be tailored to local conditions. For example, establishing minimum requirements on tuna fishing methods that prevent dolphin deaths, combined with a guarantee that countries will not insist on collateral dolphin death limits more stringent than some agreed threshold, might offer a basis for resolving the longstanding “tuna-dolphin” controversy.<sup>101</sup>

Again, the hope is that by narrowing the gap between environmental compliance costs in high-standard and low-standard jurisdictions, regulatory convergence will minimize distortions in competition, incentives to relocate, and competitiveness pressure on environmental standards, all of which might lead to sub-optimal policy choices. By combining minimum standards aimed at race-toward-the-bottom concerns with maximum standards geared to

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99. See United Nations: Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, S. TREATY DOC. NO. 100-10 (entered into force Jan. 1, 1989); Montreal Protocol Parties: Adjustments to the Montreal Protocol on Substances that Deplete the Ozone Layer, June 29, 1990, 30 I.L.M. 537 (1991); United Nations: Montreal Protocol on Substances that Deplete the Ozone Layer—Adjustments and Amendment, Nov. 23–25, 1992, 32 I.L.M. 874 (1993) (see Article 5 which sets differential phase-out requirements for developing countries).

100. See Maj Ridder, *Priorities for Dutch EU Presidency Include Breaking Deadlock on CO<sub>2</sub> Emissions*, 20 Int'l Env't Rep. (BNA) 49 (Jan. 22, 1997).

101. In this dispute, a GATT panel found the unilaterally instituted U.S. ban on the import of Mexican tuna products caught in a manner harmful to dolphins inconsistent with the principles of the international trading system. See GATT Dispute Panel Report on U.S. Restrictions on the Imports of Tuna, Aug. 16, 1991, 30 I.L.M. 1594, 1622–23.

market access, environmental protection and trade facilitation goals can be pursued simultaneously.

*e. Differentiated Standards*

A regulatory program that sets standards *centrally* but not *uniformly* represents another approach to the uniformity-versus-diversity dilemma. Under such a regime, authorities at the level of a free trade agreement would identify environmental targets common to all countries but would provide for different degrees of stringency—for example, in time tables for achieving the target or in the level of accomplishment itself—depending on the circumstances present in each separate jurisdiction. The United States uses this sort of differentiated approach in its Clean Air Act.<sup>102</sup> Metropolitan areas are ranked as extreme, severe, serious, moderate, and marginal based on the severity of their air pollution problems.<sup>103</sup> The more severe an area's "non-attainment" problem, the more time the jurisdiction is given to comply with national clean air goals;<sup>104</sup> the worst cities have seventeen extra years to meet the established National Ambient Air Quality Standards.<sup>105</sup>

Differential standards are more economically efficient than total harmonization because they better match regulatory requirements to localized needs.<sup>106</sup> Yet the presence of common long-term goals ensures that wide variations in the rigor of environmental protection efforts do not persist over time as countries converge on the jointly defined goal. This mechanism serves to balance the advantages of regulatory diversity with the benefits of reduced competitiveness stresses obtained by more centralized standards.

*f. Goal Harmonization*

Harmonization can be limited to the environmental goals that must be achieved by each jurisdiction. Under this approach, states are free to choose the environmental strategies they deem most appropriate to attain the centrally-defined goals. A team of Dutch

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102. 42 U.S.C. §§ 7401–7642 (1994).

103. *See id.* § 7511.

104. *See id.*

105. *See id.* § 7511(2).

106. *See Mendelsohn, supra* note 40.

and Belgian academics have proposed such a regulatory approach for the EC.<sup>107</sup> They suggest that creating an “environmental margin,” within which standards may fluctuate, offers the best balance between the benefits of standards that are purely tailored to local conditions and the advantages of uniform controls. Specifically, van den Bergh and his co-authors argue for broad environmental quality standards and goals to be set at the EC-wide level.<sup>108</sup> Each Member State would determine for itself how to achieve the target. In effect, the goals are harmonized, but the implementation of specific environmental programs and the identification of precise emission standards would be decentralized.

In the United States, goal harmonization takes the form of federal ambient standards. The National Ambient Air Quality Standards of the Clean Air Act specify the acceptable levels of various pollutants.<sup>109</sup> If a certain level of exposure to a specified type of pollution is identified as the safe threshold, this standard can be established as the baseline requirement in all jurisdictions. Of course, the difficulty of attaining this standard will vary across jurisdictions, depending on local conditions.<sup>110</sup>

#### *g. Standardization of Options*

An alternative to goal harmonization is to limit policy coordination to the identification of a set of options from which jurisdictions can choose their own regulatory approach. With respect to solid waste, for example, jurisdictions would select from such policy options as landfilling under specified conditions, incineration with defined controls, or various recycling strategies. This approach offers two advantages. It facilitates consensus across jurisdictions with varying requirements and, hence, the adoption of harmonization legislation. Further, it allows a degree of experimentation that may yield improved results over time. The weakness of the “options” approach is that implementation may suffer. In par-

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107. See Roger van den Bergh et al., *The Subsidiarity Principle in European Environmental Law: An Economic Analysis* (1995) (paper prepared for Conference on the Law and Economics of the Environment at the Norwegian Academy of Science and Letters) (on file with the author).

108. See *id.*

109. See 42 U.S.C. §§ 7408–7409 (1995).

110. See, e.g., Krier, *supra* note 78 at 326–30.

ticular, environmental authorities may find it difficult to assess whether parties are in compliance because of the range of ways of meeting one's legal obligations.

#### *h. Systems Harmonization*

Another approach to the issue of divergent regulatory standards is to mandate conformity with certain established environmental systems or procedures, but not to insist that all jurisdictions adopt identical substantive standards. The development of environmental management requirements by the ISO provides an example of systems harmonization.<sup>111</sup> Known as "ISO 14000," these requirements would impose basic management standards on participating companies, such as environmental audit and reporting requirements, but not a strict set of substantive requirements. Another example of systems harmonization is the EC Eco-Management and Audit Scheme (also known as "EMAs"), which provides for a number of environmental management requirements that must be fulfilled by the companies that want to participate in the scheme.<sup>112</sup>

By guaranteeing that at least a rudimentary environmental management structure is in place in all companies, such an approach might help to reduce the number of cases where divergent standards arise from "public choice" distortions<sup>113</sup>—that is, where political decisions do not reflect the will of the people—or "regulatory" failure rather than variations in local needs and conditions.<sup>114</sup> The disadvantage of relying on environmental systems is that there may be little convergence in the substantive requirements that are imposed from jurisdiction to jurisdiction. As a result, wide variations in environmental compliance costs may persist and competitiveness tensions may endure. A harmonized approach to environmental systems would reduce the risk of a race toward the bottom. In addition, when harmonization is directed by entities outside of

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111. See *Euro-green: The Regs*, CFO MAGAZINE, Sept. 1996, at 22, available in LEXIS, News Library, Curnws File (explaining the voluntary guidelines set forth in ISO 14000 and the reaction of U.S. companies). See generally *Craig D. Galli, ISO 14000 and Environmental Management Systems in a Nutshell*, UTAH B.J., Dec. 9, 1996, at 15 (discussing practical implications of ISO 14000).

112. See Commission Regulation No. 1836/93, *Allowing Voluntary Participation by Companies in the Industrial Sector in a Community Eco-Management and Audit Scheme*, 1993 O.J. (L 168) 1.

113. See Esty, *Federalism*, *supra* note 17, at 597–99.

government, as in the case of the ISO or the Codex Alimentarius, questions of legitimacy and accountability may arise.<sup>115</sup>

#### IV. CASE STUDIES—THE EUROPEAN COMMUNITY AND NAFTA

This Part examines the extent to which the market access and competitiveness concerns outlined in Part II have arisen in two regional trade agreements, the EC and NAFTA. In addition, it reviews the extent to which the responses outlined in Part III have been used to address these concerns. Of course, the EC and NAFTA are only two of a large number of regional trade agreements now in place, including the Association of South East Asian Nations ("ASEAN"), CARICOM and MERCOSUR. The focus on the EC and NAFTA reflects the fact that these two agreements are the most sophisticated—and arguably the most integrated—of the existing regional trade pacts. Moreover, trade and environment issues have been at the forefront of policy debates in these two agreements,<sup>116</sup> making the EC and NAFTA the most robust regional trade models for comparison.<sup>117</sup>

##### A. The European Community

Market access concerns have been central to the mission of the EC.<sup>118</sup> The Community has developed a diverse set of tools to ensure the free, unimpeded movement of goods among its compo-

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114. See *id.* at 584–99 (providing a typology of regulatory failures).

115. See Goldman, *Resolving*, *supra* note 73, at 1286–89; Rosman, *supra* note 73.

116. See, e.g., John Audley, *Why Environmentalists are Angry About the North American Free Trade Agreement*, in Zaelke, *supra* note 8; Daniel C. Esty, *Making Trade and Environmental Policies Work Together: Lessons from NAFTA*, in Cameron, *supra* note 8, at 373 (1994) [hereinafter Esty, *Making Trade*]; Geradin, *Community Harmonization*, *supra* note 35.

117. NAFTA has generated extensive literature on trade and the environment. See, e.g., James E. Bailey, *Free Trade and the Environment—Can NAFTA Reconcile the Irreconcilable?*, 8 AM. U.J. INT'L L. & POL'Y 839 (1993) (arguing that NAFTA favors business interests over environmental interests); David S. Baron, *NAFTA and the Environment—Making the Side Agreement Work*, 12 ARIZ. J. INT'L & COMP. L. 603 (1995) (exploring how to interpret the NAFTA Environmental Side Agreement and arguing that, if implemented in manner consistent with its purpose, Side Agreement can be tool for improving environmental quality).

118. Indeed the EC Treaty contains a large number of provisions designed to prohibit impediments to intra-Community trade. See EC TREATY, *supra* note 4, at arts. 9

ment states.<sup>119</sup> Increasingly, however, competitiveness concerns are emerging, causing the EC to explore a further set of policy strategies to blunt fears that competition will be distorted by variations in environmental rules. This section considers these different concerns in turn.

### 1. *Market Access*

The trade-restrictive effects of product standards, including environmental product standards, have been a major source of concern in the EC.<sup>120</sup> Indeed, the creation of a common market, where goods circulate freely between Member States, has always been the main purpose of European economic integration.<sup>121</sup> The EC has used judicial bounding as a central strategy to address obstacles to market access. On many occasions, the European Court of Justice has been asked to use the free trade provisions of the treaty to place limits on the ability of Member States to adopt trade-restrictive standards, and the Court has interpreted these provisions very broadly.

In recent years, however, the Court has become increasingly sensitive to environmental objectives.<sup>122</sup> It has explicitly recognized that trade liberalization should not prevent Member States from adopting legitimate environmental standards.<sup>123</sup> Section (a) examines how the European Court of Justice has attempted to balance free trade with environmental protection. The EC has also used the harmonization of environmental product standards as another strategy to protect market access. In theory, such harmonization allows companies to realize economies of scale and generally eliminates barriers to trade. Section (b) reviews the various kinds of harmoni-

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& 12–17 (custom duties); *id.* at arts. 30–37 (quantitative restrictions); *id.* at arts. 48–66 (free movement of persons, services and capital); *id.* at arts. 92–94 (state aids); *id.* at arts. 95–98 (discriminatory taxation).

119. *See, e.g.,* Jeanne-Mey Sun & Jacques Pelkmans, *Regulatory Competition in the Single Market*, 33 J. COMMON MKT. ST. 67 (1995) (analyzing regulatory competition in the EC).

120. As early as 1969, the EC adopted a General Program for Elimination of Technical Obstacles to Trade, 1969 O.J. (C 76) 1. Since then, a great part of the activity of the EC has concentrated on removing such obstacles to trade. *See* PIETER JAN SLOT, TECHNICAL AND ADMINISTRATIVE OBSTACLES TO TRADE IN THE EEC 99–114 (1975).

121. *See infra* note 124.

122. *See* Ludwig Kramer, *Environmental Protection and Article 30 EEC Treaty*, 30 COMMON MKT. L. REV. 111, 112 (1993).

123. *See* Case 240/83, *Procureur de la Republique v. Association Nationale de defense des bruleurs d'huiles usages*, 1985 E.C.R. 531:

zation used by the Community to avoid environmental obstacles to trade. It also discusses whether the EC legislation has fully integrated environmental requirements in this harmonization process or whether the environment has been merely ancillary to the EC's economic objectives.

*a. Judicial Bounding*

Judicial bounding represents the heart of the EC effort to ensure that product standards do not unduly restrict market access. The textual basis of this strategy is found in Article 30 of the EC Treaty, which provides that all quantitative restrictions and "measures having equivalent effect" shall be prohibited.<sup>124</sup> In the *Dassonville* case,<sup>125</sup> the Court of Justice interpreted the concept of "measures having equivalent effect" as "[a]ll trading rules enacted by Member States which are capable of hindering, directly or indirectly, actually or potentially, intra-Community trade."<sup>126</sup> As defined in *Dassonville*, Article 30 appears to prevent discriminatory and nondiscriminatory environmental measures affecting trade.<sup>127</sup>

Two exceptions, however, temper this sweeping free trade principle. Article 36 allows Member States to adopt measures that are *prima facie* incompatible with Article 30 if they pursue non-economic goals, such as the protection of human health or life, animals, or plants. In addition, the "rule of reason," which originated

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The principle of free trade is not to be viewed in absolute terms but is subject to certain limits justified by the objectives of general interest pursued by the Community provided that the rights in question are not substantively impaired . . . . There is no reason to conclude that [Directive 75/439 on waste oils] has exceeded those limits. The Directive must be *seen in the perspective of environmental protection, which is one of the Community's essential objectives*.

*Id.* at 549 (emphasis added).

124. On the Article 30 case law see generally PETER OLIVER, *FREE MOVEMENTS OF GOODS ON THE EEC* (2d ed. 1988); LAWRENCE GORMLEY, *PROHIBITING RESTRICTIONS ON TRADE WITHIN THE EEC* (1985).

125. See Case 8/74, *Procureur du Roi v. Dassonville et al.*, 1974 E.C.R. 837.

126. *Id.* at 852. The *Dassonville* formula has been criticized as being too broad, and a number of authors have advised the Court to reduce the scope of application of Article 30. See, e.g., Josephine Steiner, *Drawing the Line: Uses and Abuses of Article 30 EEC*, 29 COMMON MKT. L. REV. 749 (1992); Eric L. White, *In Search of the Limits to Article 30 of the EEC Treaty*, 26 COMMON MKT. L. REV. 235 (1989).

127. For a survey of the type of measures capable of falling within Article 30, see A. Mattera, *Protectionism Inside the European Community*, J. WORLD TRADE L. 283 (1984).



in the *Cassis de Dijon* case,<sup>128</sup> allows Member States to adopt nondiscriminatory trade-restrictive measures to protect a series of "essential requirements" including the protection of health and the environment.<sup>129</sup> To benefit from these exceptions, environmental measures must, however, meet a so-called test of "proportionality." To pass this test, trade restrictions must be (1) pertinent, that is, there must be a causal relationship between the measure adopted and the attainment of the objective pursued,<sup>130</sup> and (2) the least restrictive method of attaining their objective.<sup>131</sup>

The question of the compatibility of the EC Treaty with environmental product standards affecting trade arose in the famous *Danish Bottles* case.<sup>132</sup> In that case, the Commission challenged a Danish law that required manufacturers to market beer and soft drinks in "returnable containers." In addition, the size and shape of the containers had to be approved by the Danish National Agency for the Protection of the Environment ("NAPE") to facilitate bottle collection and recycling. Following protests from producers of beverages and containers in other Member States, the Commission urged the Danish government to change the law. In 1984, as a consequence of the Commission intervention, the Danish government amended the bottle law to allow the use of non-approved containers by small producers or those seeking to test the market,

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128. See Case 120/78, *Rewe- Zentrale AG v. Bundesmonopolverwaltung für Branntwein*, 1979 E.C.R. 649.

129. See *id.* at 662.

130. See, e.g., Case 788/79, *Criminal proceedings against Herbert Gilli and Paul Andres*, 1980 E.C.R. 2071, 2077-79 (ruling that an Italian ban on the sale of vinegar other than wine vinegar was disproportionate because there was no causal connection between the ban and the objectives it attempted to promote, i.e., the protection of public health).

131. See, e.g., Case 124/81, *Commission v. United Kingdom*, 1983 E.C.R. 203, 236.

Whilst the protection of the health of animals is one of the matters justifying the application of Article 36, it must none the less be ascertained whether the machinery employed in the present case by the United Kingdom constitutes a measure which is disproportionate in relation to the objective pursued, on the ground that the same result may be achieved by means of less restrictive measures, or whether, on the other hand, . . . such a system is necessary and hence justified under Article 36.

*Id.* For a good discussion on the principle of proportionality in European Community law see Gráinne de Búrca, *The Principle of Proportionality and its Application in EC Law*, 13 Y.B. EUR. L. 105 (1993).

132. Case 302/86, *Commission v. Denmark*, 1988 E.C.R. 4607. For discussion of this case, see Ludwig Kramer in EUR. ENVTL. L. CASEBOOK 91 (1994). See also Toni R.F. Sexton, *Enacting National Environmental Laws More Stringent than Other States' Laws in the European Community*, 24 CORNELL INT'L L.J. 563 (1991).

provided that in either case a deposit-and-return system was established for the non-approved containers. The Commission, however, was not satisfied with the 1984 amendments. In 1986, it brought proceedings against Denmark to have both the compulsory deposit-and-return system and the NAPE approval system declared incompatible with Denmark's free trade obligations under the EC Treaty.

The European Court of Justice found that, although it affected intra-Community trade, this deposit-and-return system was "an indispensable element of a system intended to ensure the re-use of containers and therefore . . . necessary to achieve the aims pursued by the contested rules. That being so, the restrictions which it imposes on the free movement of goods cannot be regarded as disproportionate."<sup>133</sup>

Hence, the Court deemed the returnable containers mandate justified under the rule of reason. With regard to the NAPE approval system, however, the Court found that by restricting the quantity of beer and soft drinks which could be marketed by a single producer in non-approved containers to a small fixed volume, Denmark had failed to fulfill its obligations under Article 30 of the Treaty.<sup>134</sup>

The impact of the *Danish Bottles* case on the relationship between trade and environmental protection in the EC thus remains unclear. On one hand, by upholding the Danish deposit-and-return system, the Court of Justice appears to have given a green light to pro-environment Member States to develop their own environmental protection schemes even at the expense of the unity of the internal market.<sup>135</sup> This freedom might in turn lead to a proliferation of inconsistent product standards with resulting risks of market fragmentation. On the other hand, the second part of the judgment, which deals with the NAPE approval system, seems to indicate that the Court is prepared to scrutinize trade-restrictive environmental measures and disallow those that it deems disproportionate to the benefits gained.

The implications of the *Danish Bottles* case are, therefore, rather uncertain. Although the Court of Justice made clear that, in

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133. Case 302/86, *Commission v. Denmark*, 1988 E.C.R. 4607, at 4630.

134. *Id.* at 4632.

135. See, e.g., *The Freedom to be Cleaner than the Rest*, *ECONOMIST*, Oct. 14, 1989, at 21; see also Lawrence Gormley, *Recent Case Law on the Free Movement of Goods: Some Hot Potatoes*, 27 *COMMON MKT. L. REV.* 825, 846 (1990).

certain circumstances, environmental protection may take precedence over the free movement of goods, it did not delimit the extent of the Member States' regulatory discretion.<sup>136</sup> It falls to the Court in subsequent cases to define the environmental boundaries of Article 30.<sup>137</sup>

*b. Harmonization of Member States' Environmental Product Standards*

The EC has used the harmonization of environmental product standards as another prime instrument to ensure the free movement of products. Among the variety of harmonization strategies we have identified, the EC has relied more heavily on uniform standards than any other approach. Since varying product requirements impede intra-Community trade, total harmonization is the most effective way to ensure unrestricted movement of products between Member States. The EC has, for example, adopted total harmonization regimes in the areas of vehicle emission standards,<sup>138</sup> chemical substances,<sup>139</sup> pesticides,<sup>140</sup> and batteries.<sup>141</sup>

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136. See David A. Demiray, *The Movement of Goods in a Green Market*, LEGAL ISSUES EUR. INTEGRATION, 1994/1, at 73, 91.

137. In Case C-2/90, *Commission v. Belgium*, 1992 E.C.R. I-4431 (the so-called "Belgian Waste Case"), the Court of Justice ruled that a Belgian ban on the imports of foreign waste was lawful under the EC Treaty because Belgium needed to adopt that measure to protect its environment. The reasoning of the Court is, however, confusing and fails to clarify the boundaries of Article 30. In particular, this case does not address the principle of proportionality which is a central aspect of the Article 30 jurisprudence. See Peter Von Wilmsowsky, *Waste Disposal in the Internal Market: The State of Play After the ECJ's Ruling on the Walloon Import Ban*, 30 COMMON MKT. L. REV. 541 (1993). More recently, the Court examined the question of proportionality in the so-called "Crayfish" case. In that case, the Court ruled that a German import ban on live crayfish was not necessary to protect domestic crayfish from diseases. The Court found that there were other, less trade-restrictive measures available which were capable of achieving that environmental objective. See Case C-131/93, *Commission v. Germany*, 1994 E.C.R. I-3303.

138. See, e.g., Council Directive 94/12 Amending Directive 70/220 on the Measures to Be Taken Against Air Pollution by Gases from Positive-Ignition Engines of Motor Vehicles, 1994 O.J. (L 100) 42.

139. See, e.g., Council Directive 76/679 on the Restrictions on the Marketing and Use of Certain Dangerous Substances and Preparations, 1976 O.J. (L 262) 201, and its amendment Directives; Council Directive 67/548 on the Classification, Packaging and Labelling of Dangerous Substances, 1967 O.J. (L 196) 1, and its amendment Directives.

140. See, e.g., Council Directive 94/414 Concerning the Placing of Plant Protection Products on the Market, 1991 O.J. (L 230) 1; Council Directive 78/361 on the Classification, Packaging and Labelling of Dangerous Preparations (Pesticides), 1978 O.J. (L 206) 13.

141. See Council Directive 91/157 on Batteries and Accumulators Containing Certain Dangerous Substances, 1991 O.J. (L 78) 38.

In a number of circumstances, however, the EC has opted for less all-encompassing strategies of harmonization. In some areas, such as the regulation of noise-generating equipment,<sup>142</sup> the EC has adopted a strategy of optional harmonization that bars Member States from requiring companies to meet national standards that are more stringent than the EC norm. Like uniform standards, this strategy helps to eliminate trade barriers by guaranteeing that a product which complies with the EC standard can circulate freely throughout the Community. Some observers, however, criticize the adoption of maximum standards, arguing that they give preference to economic interests over environmental ones.<sup>143</sup> Under a regime bounded only by a "ceiling," Member States may set less stringent national standards and dissuade others from adopting strict standards.

The EC has also undertaken to harmonize certain forms of "pre-standards." For example, Directive 93/67 sets up harmonized risk assessment procedures to be followed by manufacturers and importers for all new chemical substances that they place on the market.<sup>144</sup> Such common procedures ease market entry for companies by ensuring that they do not have to carry out different tests and protocols for each of the Member States in which they want to market their products. As expressly noted in the preamble to the Directive, harmonized risk assessment procedures also guarantee baseline levels of public health and ecological protection throughout the EC.

In recent years, the EC has increasingly relied on a "New Approach" to harmonization.<sup>145</sup> The central characteristic of this New Approach is that it limits harmonization to the EC level of

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142. See, e.g., Directive 78/1015 on the Approximation of the Laws of the Member States on the Permissible Sound Level and Exhaust System of Motorcycles, 1978 O.J. (L 349) 21; Directive 77/311 on the Approximation of the Laws of the Member States Relating to the Driver-Perceived Noise Level of Wheeled Agricultural or Forestry Tractors, 1977 O.J. (L 105) 1.

143. See, e.g., Owen Lomas, *Environmental Protection, Economic Conflict and the European Community*, 33 MCGILL L.J. 506, 514 (1988).

144. See Commission Directive 93/67 Laying Down the Principles for Assessment of Risks to Man and the Environment of Substances Notified in Accordance with Council Directive 67/548, 1993 O.J. (L 227) 9; see also Commission Regulation 1488/94 Laying Down the Principles for the Assessment of Risks to Man and the Environment of Existing Substances in Accordance with Council Regulation No 793/93, 1994 O.J. (L 161) 3.

145. See Council Resolution 136/1 on a New Approach to Technical Harmonization of Standards, 1985 O.J. (C 136) 1. See generally Denis Waelbroeck, *L'Harmonisation des Regles et Normes Techniques dans la CEE*, 24 Cahiers de Droit Européen 243 (1988);

“essential requirements” necessary to ensure the free movement of a product.<sup>146</sup> The task of drawing up detailed regulations based on those essential requirements is left to European standardization organizations, such as the Comité Européen de Normalisation (CEN).<sup>147</sup> If a product meets these specifications, it benefits from a presumption that it satisfies the EC’s essential requirements and thus should be allowed to circulate freely throughout the EC.<sup>148</sup> The New Approach avoids the need for the Community to have extremely detailed regulatory directives.<sup>149</sup> It facilitates the decision-making process and allows the EC to move more quickly toward economic integration.<sup>150</sup>

The EC has also adopted an eco-labelling scheme designed to inform consumers about the environmental qualities of products and to ensure that these products achieve uniformly high levels of environmental performance.<sup>151</sup> A Committee of Member States’ representatives is responsible for establishing ecological criteria for a number of products. Once criteria have been set for a specific

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Jacques Pelkmans, *The New Approach to Technical Harmonization and Standardization*, 25 J. COMMON MKT. ST. 249 (1987).

146. The New Approach relies on the concept of “mutual recognition” according to which a product lawfully produced and marketed in one Member State must be admitted in another Member State, except when the latter identifies essential health, environment, or safety requirements that are inadequate in the exporting country. See Case 120/78, *Rewe-Zentrale AG v. Bundesmonopolverwaltung für Branntwein*, 1979 E.C.R. 649, 649. The harmonization of these essential requirements would therefore be necessary and sufficient to ensure the free movement of goods throughout the Community. See generally A. Mattera, *L’Article 30 du Traité CEE, la Jurisprudence “Cassis de Dijon” et le Principe de Reconnaissance Mutuelle*, REVUE DU MARCHÉ UNIQUE EUROPÉEN, 4/1992, at 13.

147. On CEN, see generally SEBASTIAN FARR, HARMONISATION OF TECHNICAL STANDARDS IN THE EC 3 (1992).

148. See *id.* at 24.

149. However, making harmonization a purely technical exercise may ultimately be difficult as every environmental decision contains an element of politics. Regulatory choices made without the opportunity for political debate may be seen as lacking in legitimacy. See Roszell D. Hunter, *Standardization and the Environment*, 16 Int’l Env’t Rep. (BNA) 185, 189 (Mar. 10, 1993).

150. For examples of New Approach Directives having potential environmental implications, see Council Directive 90/396 on the Approximation of the Laws of the Member States Relating to Appliances Burning Gaseous Fuels, 1990 O.J. (L 196) 15; Council Directive 89/392 on the Approximation of the Laws of the Member States Relating to Machinery, 1989 O.J. (L 183) 9; Council Directive 89/16 on the Approximation of Laws, Regulations, and Administrative Provisions of the Member States Relating to Construction Products, 1989 O.J. (L 40) 12.

151. See Council Regulation 880/92 on a Community Eco-Label Award Scheme, 1992 O.J. (L 99) 1. For a discussion of that regulation, see STANLEY P. JOHNSON & GUY CORCELLE, *THE ENVIRONMENTAL POLICY OF THE EUROPEAN COMMUNITIES* 445 (2d ed. 1995).

product, competent bodies in each Member State assess producer applications and approve the use of the label by successful applicants.

From a trade standpoint, one of the central weaknesses of the scheme is that it does not override the national eco-label schemes, such as the German Blue Angel or the Nordic Swan, which are entitled to operate alongside the EC eco-label.<sup>152</sup> To satisfy consumer expectations, producers remain obliged to develop separate claims for label status for each Member State that has an eco-label scheme. Contrary to the instruments described in the preceding paragraphs, the eco-label scheme does not really help to create an internal market.<sup>153</sup>

While free traders have generally cheered the EC harmonization process, environmentalists have been sharply critical.<sup>154</sup> Environmentalists argue that, because of the complexity of the decision-making process and the existence of competing interests among Member States, EC-harmonized standards often reflect the lowest common denominator. The Single European Act,<sup>155</sup> adopted in 1986, added several provisions to the EC Treaty designed to address this issue.<sup>156</sup> First, by replacing the traditional unanimity voting system by a system of qualified majority voting, Article 100a(1) has considerably simplified the decisionmaking process, thus facilitating the adoption of strict emission standards over the objections of laggards.<sup>157</sup> Second, Article 100a(3) requires the Commission to "take as a base a high level of protection" in its proposals concern-

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152. See, e.g., *Frustrated with EU Label, Denmark Joins Nordic Swan*, ENV'T WATCH, Nov. 1, 1996, at 5.

153. It should be noted that, due to the relatively poor performance of the EC eco-label, the European Commission is currently planning to revise it. The central aspect of the revised scheme would be the creation of an independent organization called the European Eco-Labeling Organization ("EEO") to provide ecological criteria for future products. See *Commission's Eco-Label Scheme Revision Calls for Independent Body to Set Criteria*, 20 Int'l Env't Rep. (BNA) 5 (Jan. 8, 1997).

154. See, e.g., *Greenpeace Urges Irish Presidency to Push for Highest Possible Standards*, 19 Int'l Env't Rep. (BNA) 726 (Aug. 21, 1996).

155. 1987 O.J. (L 169) 1.

156. See, e.g., Dirk Vandermeersch, *The Single European Act and the Environmental Policy of the European Economic Community*, 12 EUR. L. REV. 407 (1987); Ludwig Kramer, *The Single European Act and Environment Protection: Reflections on Several New Provisions in Community Law*, 24 COMMON MKT. L. REV. 659 (1987) [hereinafter Kramer, *Single Act*].

157. See GERADIN, *COMPARATIVE STUDY*, *supra* note 68.

ing health, safety, environmental and consumer protection. Third, Article 100a(4) authorizes, in certain circumstances, Member States to apply more strict national standards rather than EC harmonized standards if they deem it necessary to protect the environment.<sup>158</sup>

## 2. *Competitiveness*

Although the EC originally concentrated on the trade disruptive effects of environmental product standards, the scope of EC efforts to minimize other trade-environment tensions has also grown. Member States have come to realize that deeper economic integration requires some degree of integration in other spheres, such as environmental protection.<sup>159</sup> There is also a growing awareness that wide variations in environmental process standards could have important trade effects. Member States, especially those with high environmental standards such as Germany, increasingly fear that differences in pollution control requirements could generate distortions of competition and disrupt the functioning of the common market.<sup>160</sup> The negative consequences of the distortions of competition created by inconsistent environmental process standards are

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158. In its relevant part, Article 100a(4) provides that

[i]f after the adoption of a harmonization measure by the Council acting by a qualified majority, a Member State deems it necessary to apply national provisions on grounds of major needs referred to in Article 36, or relating to protection of the environment or the working environment, it shall notify the Commission of its provisions.

One difficulty with Article 100a(4) is that it is unclear whether it permits Member States to "adopt" stricter standards or only to "maintain" stricter standards. On this issue, compare, for example, Kramer, *Single Act*, *supra* note 156, at 681 (arguing that Article 100a(4) only permits maintenance of stricter standards) with James Flynn, *How Will Article 100A(4) Work? A Comparison with Article 93*, 24 COMMON MKT. L. REV. 689-906 (1987) (arguing that article 100a(4) permits Member States to maintain and adopt stricter measures). Moreover, in order to benefit from this provision, a Member State must obtain an authorization from the Commission. *See, e.g.*, Commission Decision 94/783 Concerning the Prohibition of PCP Notified by the Federal Republic of Germany, 1994 O.J. (L 316) 43.

159. *See* Lomas, *supra* note 143, at 521 (illustrating the inter-relationship between environmental protection and economic integration using the example of industrial plant emissions).

160. *See infra* text accompanying note 180.

abundantly illustrated in the preambles of EC Directives,<sup>161</sup> Court of Justice judgments,<sup>162</sup> and the legal literature.<sup>163</sup>

To limit distortions of competition that may be created by inconsistent environmental standards the EC has increasingly moved to a regime of minimum PPM standards.<sup>164</sup> This approach recognizes that some variation in standards is legitimate and should be expected given the varying circumstances of the Member States. It also protects against the possibility that low standards reflect regulatory failure, rather than careful matching of environmental requirements to local circumstances. Minimum standards, moreover, reduce the pollution control cost disparities across the Member States, narrowing the environmental-cost-based competitive advantage available to producers in low-standard jurisdictions and reducing the risk of a regulatory race to the bottom. The adoption of minimum process standards, while helping to maintain fair conditions for competition, does not prevent any Member State from adopting stricter national standards.

In certain circumstances, the EC has been forced to opt for more flexible strategies of PPM harmonization. For example, the EC adopted a multi-tier harmonization strategy for controlling air pollution from large combustion plants.<sup>165</sup> Germany urged the adoption of strict limits on SO<sub>2</sub> and NO<sub>x</sub> emissions from large combustion plants, consistent with its own domestic requirements. A number of other Member States, such as Greece, Ireland, Portugal and

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161. *See, e.g.*, Council Directive 76/464 on Pollution Caused by Certain Dangerous Substances Discharged into the Aquatic Environment of the Community, 1976 O.J. (L 129) 23 [hereinafter Directive 76/464] (“[A]ny disparity between the provisions on the discharge of certain dangerous substances into the aquatic environment already applicable or in preparation in the various Member States may create unequal conditions of competition and thus directly affect the functioning of the common market.”).

162. *See, e.g.*, Case C-300/89, *Commission v. Council*, 1991 E.C.R. I-2867, 2901 (“[P]rovisions which are made necessary by considerations relating to the environment and health may be a burden upon the undertakings to which they apply and, if there is no harmonization of national provisions on the matter, competition may be appreciably distorted.”).

163. *See, e.g.*, Lomas, *supra* note 143, at 511 (discussing the competitiveness effects that may arise from inconsistent environmental process standards).

164. *See, e.g.*, Council Directive 87/217 on the Prevention and Reduction of Environmental Pollution by Asbestos, 1987 O.J. (L 85) 40; Council Directive 80/778 Relating to the Quality of Water Intended for Human Consumption, 1980 O.J. (L 229) 11; Council Directive 78/176 on Waste from the Titanium Dioxide Industry, 1978 O.J. (L 54) 19.

165. *See* Council Directive 88/609 on the Limitation of Emissions of Certain Pollutants into the Air from Large Combustion Plants, 1988 O.J. (L 336) 1, amended by Council Directive 94/66, 1994 O.J. (L 337) 83 [hereinafter Directive 88/609].



Spain, however, felt that strict emissions limits would have a negative impact on their industries and would generally impede their economic development.<sup>166</sup> Directive 88/609 strikes a compromise. With regard to existing plants, the Directive requires overall reductions of SO<sub>2</sub> and NO<sub>x</sub> but with varying implementation dates. Not only are different reduction targets set, but a number of Member States, including Greece, Ireland and Portugal, are even authorized to increase their emissions for some period.<sup>167</sup> Further flexibility is built into this control regime through a provision that allows each Member State to allocate the permitted emissions among the various facilities within its territory.<sup>168</sup> For new plants, Directive 88/609 establishes differentiated emission limits according to the size of the installation.<sup>169</sup> Ultimately, a regime of minimum standards will protect German industry from persistent, significant air pollution control cost disadvantages.<sup>170</sup>

Additional controversy has emerged over whether standards should also be differentiated on the basis of differences in ecosystem assimilative capacity—that is, on the basis of the ability of different air, watershed and land types to absorb and break down pollutants. This controversy reached its peak during the consideration of Directive 76/464, which addressed water pollution caused by certain dangerous substances.<sup>171</sup> Directive 76/464 divides dangerous substances into two categories: a “black list” of substances considered to be dangerous to the aquatic environment and a “grey

166. The United Kingdom was also opposed to such limits because it would have meant surrendering the competitive advantage arising from its geographical location. As an island exposed to Atlantic weather systems and westerly winds, the United Kingdom is able to disperse air pollution more easily than other Member States and, hence, can preserve the integrity of its environment at a lesser cost for industry. The United Kingdom was therefore firmly against any type of uniform reductions. See Lomas, *supra* note 143, at 534–35.

167. See Directive 88/609, *supra* note 165, art. 3, Annexes I & II.

168. See *id.* at art. 3.

169. See *id.* at Annexes III–VIII.

170. At a recent press conference, Dutch Environment Minister de Boer indicated that the EC should use such a strategy of multi-tier harmonization to control CO<sub>2</sub> emissions. Specifically, Minister de Boer said that the Netherlands is currently developing “a model for an allocation scheme of CO<sub>2</sub> emissions based on the specific situation of each country—taking into account aspects such as energy supply and economic structure.” See Ridder, *supra* note 100.

171. Directive 76/464, *supra* note 161, at 23. For discussions of this Directive, see D. Taylor et al., *EC Environmental Policy and the Control of Water Pollution: the Implementation of Directive 76/464 in Perspective*, 24 J. COMMON MKT. STUD. 225 (1986); J.T. Farquhar, *The Policies of the European Community Towards the Environment—The “Dangerous Substances” Directive*, J. PLAN. & ENV'T L. 145 (1983).

list" covering substances considered to have less harmful effects.<sup>172</sup> The point of contention in the proposal originally made by the Commission concerned the control regime to be adopted with regard to black-list substances. The Commission proposed specific effluent standards for each substance on the list. For each substance, those standards specified a level of maximum allowable emissions which did not vary depending on local environmental conditions.

Nearly all Member States agreed to the proposed method. The lone dissenter, the United Kingdom, proposed instead that the regulations apply ambient water quality standards.<sup>173</sup> Such standards would prescribe that an overall level of water pollution not be exceeded, without specifying any maximum level of discharge by a particular industry.<sup>174</sup> Harmonized ambient standards, in contrast with emissions limits, preserve the comparative advantage of industries located in regions that are less polluted or better able to absorb pollution. The use of water quality standards rather than effluent limits would allow the United Kingdom to exploit a locational advantage; its short, fast-flowing rivers permit it to meet water quality standards in many locations even if industry is granted generous emissions permits.<sup>175</sup>

The Member States eventually settled on a strategy of harmonized options, whereby effluent standards would be the general rule but a Member State could, under strict conditions, opt for an alternative system of water quality standards.<sup>176</sup> The United Kingdom's attitude during these negotiations was nevertheless severely criticized as self-interested and contrary to the requirements of a common market because it prevented equalization of the conditions of

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<sup>172</sup> Directive 76/464, *supra* note 161, at Annex, lists I and II.

<sup>173</sup> See Lomas, *supra* note 143, at 516.

<sup>174</sup> See *id.*

<sup>175</sup> David Vogel quotes a British official arguing against the adoption of effluent standards: "Italy economically benefits from the amount of sunshine it receives each year. Why should not our industry be able to take similar advantage of our long coastline, high winds and rapidly flowing rivers?" DAVID VOGEL, NATIONAL STYLES OF REGULATION: ENVIRONMENTAL POLICY IN GREAT BRITAIN AND THE UNITED STATES 103 (1986).

<sup>176</sup> See Directive 76/464, *supra* note 161, at art. 6. For a similar kind of compromise see Council Directive 89/428 on Procedures for Harmonizing the Programmes for the Reduction and Eventual Elimination of Pollution Caused by Waste from the Titanium Dioxide Industry, 1989 O.J. (L 201) 56, 59 (providing for emissions standards, but authorizing Member States to apply quality objectives "in such a way that the effects in terms of protecting the environment and avoiding distortions of competition are equivalent to that of the limit values.").

competition.<sup>177</sup> A system of effluent standards, however, would have prevented those EC regions with greater absorptive capacity from exploiting their natural comparative advantage.

The controversy over which regulatory technique should be used to harmonize industrial processes has never been totally resolved. In fact, it recently reappeared with force during the negotiations over the recently adopted Directive on Integrated Pollution Prevention and Control.<sup>178</sup> This Directive aims to prevent industrial pollution at its source. The Directive sets up an authorization procedure whereby industrial installations apply for operating permits that will include various emission limits.<sup>179</sup>

As in the case of Directive 76/464, Member States disagreed over how to set emissions limits. Certain northern Member States argued that these limits should be fixed at the EC level on the basis of the "Best Available Techniques" or "BAT" (that is, technology-based effluent standards). For example, German industry and the German government insisted on state-of-the-art technology requirements to ensure a level playing field across the EC.<sup>180</sup> The German authorities wanted industries in other Member States to bear the costs of installing state-of-the-art pollution abatement technologies which German producers have already borne pursuant to strict domestic standards. Southern Member States and the United Kingdom argued that effluent limits should be adopted at the national level pursuant to more flexible environmental quality standards.<sup>181</sup> These Member States suggested that ambient standards would permit them to take into account their environmental circumstances and to exploit their natural locational advantages.

The common position reached by the Council in November 1995, which has now been formally adopted and has become binding law, attempted to reconcile these competing positions. Member State authorities would grant emissions limits to the controlled installations "based on the best available techniques, without pre-

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177. See, e.g., Lomas, *supra* note 143, at 534.

178. Council Directive 96/61 on Integrated Pollution Prevention and Control, 1996 O.J. (L 257) 26 [hereinafter Directive 96/61].

179. See *id.* at arts. 3-9.

180. For a discussion of the revised draft of the European Council Document, see Jörn Schnutenhaus, *Integrated Pollution Prevention and Control: New German Initiatives in the European Environment Council*, 3 EUR. ENVTL. L. REV. 323 (1994).

181. See generally *French Officials Predict Passage of Framework IPPC Legislation in June*, 18 Int'l Env't Rep. (BNA) 212-13 (Mar. 22, 1995).

scribing the use of any technique or specific technology, but taking into account the technical characteristics of the installation concerned, its geographical location and the local environmental conditions.”<sup>182</sup> The European Parliament has strongly criticized this provision on the ground that it will lead to different levels of environmental protection across the EC.<sup>183</sup> In response to this criticism, EC Environment Commissioner Ritt Bjerregaard has made it clear that the Commission would not allow national permitting authorities to abuse the flexibility built into this provision by setting low requirements designed to give local companies a competitive advantage.<sup>184</sup> The Commissioner indicated that she would not hesitate to propose uniform emission standards if it appeared that national authorities were failing to adopt appropriate pollution controls.<sup>185</sup>

These policy disputes illustrate the serious concerns of high-standard Member States about the cost differentials that arise from varying environmental process standards. In contrast, concerns that low standards in some Member States would create incentives for industrial relocation have received less attention in the Community. As we discuss in Part IV.C.2, a number of factors explain why this fear of industrial migration has not emerged in the EC with any real force.

It is more difficult to explain why the risk of a regulatory race toward the bottom arising from environmental cost differentials across jurisdictions has not been a major issue in the EC. To the extent that Member States are concerned that high domestic environmental standards may affect the competitive position of their companies in domestic and international markets, a race toward the bottom could very well occur. The negotiations of the Directive on Integrated Pollution Prevention and Control have revealed concern that some Member State authorities may seek to obtain competitive advantages for local companies by promulgating inappropriately low standards. Although little data exist to support this fear, it does appear that high-standard Member States are increasingly reluctant

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182. Directive 96/61, *supra* note 178, at art. 9(4).

183. See *Parliament Approves IPPC Proposal, Sends Measure to Council for Final Action*, 19 Int'l Env't Rep. (BNA) 431 (May 29, 1996).

184. See *Bjerregaard Defends Flexibility in IPPC Directive*, ENV'T WATCH, June 7, 1996, at 13.

185. See *id.*

to impose further pollution controls on their industries if comparable requirements are not imposed in other Member States. This may explain, for example, why, despite pressure from environmental groups, pro-environment Member States such as Germany have so far hesitated to adopt energy taxation schemes to address climate change.<sup>186</sup>

Finally, some observers have suggested that the EC's choice of harmonization as the primary strategy for facilitating economic integration has largely failed to ensure fair conditions of competition.<sup>187</sup> Though Member States are bound by similar or comparable standards, there are wide disparities in the levels of implementation and enforcement of these standards among Member States.<sup>188</sup> While a number of Member States, such as Germany, Denmark, and the Netherlands, have established sophisticated implementation and enforcement mechanisms, others, such as Greece, Italy, and Spain, have failed to develop such mechanisms and generally have poor implementation and enforcement records.<sup>189</sup>

The Commission remains heavily dependent on national environmental efforts. In fact, when the Commission learns that a Member State has not implemented or enforced EC standards, its only recourse beyond hortatory statements is to initiate legal proceedings against that Member State before the European Court of Justice on a claim that the Member State has failed to comply with its obligations under EC law.<sup>190</sup> This procedure is extremely slow and to date has proven a rather weak deterrent against slack environmental performance.<sup>191</sup> In response, some commentators have suggested that the Commission play a more central role in implementation and enforcement.<sup>192</sup> Yet, because the current political

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186. See *Eco-Tax Possibility Dwindling in Face of Industry Opposition, Unemployment*, 19 Int'l Env't Rep. (BNA) 369 (May 1, 1996).

187. See van den Berg, *supra* note 107.

188. On the enforcement of Community environmental law see, for example, Richard Macrory, *The Enforcement of Community Environmental Laws: Some Critical Issues*, 29 COMMON MKT. L. REV. 347 (1992).

189. See Geoffrey Pridham & Michelle Cini, *Enforcing Environmental Standards in the European Union: Is There a Southern Problem?*, in ENVIRONMENTAL STANDARDS IN THE EUROPEAN UNION IN AN INTERDISCIPLINARY FRAMEWORK 251 (Michael Faure et al. eds., 1994).

190. For the basis for this procedure, see EC TREATY, *supra* note 4, at art. 169.

191. See generally Macrory, *supra* note 188.

192. See Geradin, *Community Harmonization*, *supra* note 35, at 188-95.

context is dominated by the principle of subsidiarity, it is unlikely that the powers of the Commission will be increased.<sup>193</sup>

### B. NAFTA

In NAFTA, as in any free trade agreement, market access is a central focus. But unlike the EC, where environmental competitiveness concerns have only recently emerged, the fear of environmental-policy-derived competitive disadvantage to companies operating in the United States or Canada under more demanding regulatory rules (and thus higher costs) has been a major issue from the earliest days of the negotiations.

#### 1. Market Access

Two separate chapters in NAFTA deal with market access: Chapter 7B (sanitary and phytosanitary standards) and Chapter 9 (other technical barriers to trade, including environmental product standards). Each seeks to ensure the free movement of goods between Mexico, the United States, and Canada.

These provisions are relatively complex and contain some seemingly contradictory requirements. For example, NAFTA guarantees each party the right to set and maintain environmental health and safety standards consistent with the level of protection it alone deems appropriate,<sup>194</sup> but the agreement also mandates that such measures be based on scientific principles.<sup>195</sup> NAFTA's market ac-

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193. The principle of subsidiarity is found in Article 3B(2) of the EC Treaty, which states that

[i]n areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the member-States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.

This principle, which is a safeguard against excessive Community intervention in the increasing number of fields where the Community has the power to take action, limits any increase of Commission powers with respect to the implementation and enforcement of environmental directives. See Koen Lenaerts, *The Principle of Subsidiarity and the Environment in the European Union: Keeping the Balance of Federalism*, 17 *FORDHAM INT'L L.J.* 846 (1994).

194. See NAFTA, *supra* note 5, at art. 715.

195. See *id.* at art. 712.3.

cess provisions represent an effort to reconcile trade liberalization with environmentalist opposition to any relaxation of environmental standards. Free traders argued that NAFTA should impose strict disciplines on standard-setting by the parties to ensure the unimpeded movement of goods among them.<sup>196</sup> Environmentalists, on the other hand, feared that such disciplines could be used to override legitimate environmental standards.<sup>197</sup>

Chapters 7B and 9 of NAFTA require that NAFTA parties use international standards, such as those adopted by the Codex Alimentarius Commission, the World Health Organization (“WHO”), or the ISO, as a guide in setting sanitary and phytosanitary rules, as well as more general environmental requirements.<sup>198</sup> Environmental regulations that conform with these international standards are presumed to be consistent with the market access disciplines imposed in Chapters 7B and 9.<sup>199</sup> In response to the environmentalist critique that international standards may be too low to ensure appropriate levels of environmental protection, Chapters 7B and 9 allow parties to adopt, maintain, or apply standards that are more stringent than international standards.<sup>200</sup>

Specifically, Chapter 7B recognizes that each party is free to “establish its appropriate levels of protection.”<sup>201</sup> To prevent the protectionists from using these measures to close markets, Chapter 7B imposes restrictive conditions on the type of standards that may be adopted. First, sanitary and phytosanitary standards must be “necessary for the protection of human, animal or plant life or health”<sup>202</sup> and can be applied only to the extent “necessary” to achieve the party’s chosen level of protection.<sup>203</sup> In this regard, NAFTA echoes the restrictive language of GATT Article XX.<sup>204</sup>

196. See, e.g., *Labor, Business, Agriculture, and Environmental Issues Relating to NAFTA: Hearings Before the Senate Comm. on Finance*, 103d Cong. 109–11, 190–202 (1993) (statement of Jerry R. Junkins on behalf of USA\*NAFTA, a coalition of 2700 small and large businesses, associations, and the Business Roundtable).

197. See generally Audley, *supra* note 116.

198. See NAFTA, *supra* note 5, at arts. 713, 905.

199. See *id.* at arts. 713.2, 905.2.

200. See *id.* at arts. 713.3, 905.3.

201. *Id.* at art. 712.2.

202. *Id.* at art. 712.1.

203. See *id.* at art. 712.5.

204. See GATT, *supra* note 3. For a discussion of Article XX generally, see ESTY, GREENING THE GATT, *supra* note 8, at 48–49; Steve Charnovitz, *Exploring the Environmental Exceptions in GATT Article XX*, J. WORLD TRADE, Oct. 1991, at 37 [hereinafter Charnovitz, *Environmental Exceptions*].

Second, standards must be “based on scientific principles” and “not maintained where there is no longer a scientific basis.”<sup>205</sup> Third, sanitary and phytosanitary standards must not “arbitrarily or unjustifiably discriminate” against imported products “where identical or similar conditions prevail.”<sup>206</sup> Again, this language derives from existing GATT constraints on national standard-setting. Finally, the standards must not create a “disguised restriction on trade between the Parties.”<sup>207</sup> These requirements establish the framework for judicial bounding under NAFTA. Where environmental regulations run afoul of these disciplines, they may be challenged as inconsistent with the market access obligations undertaken by NAFTA parties.<sup>208</sup>

Where one NAFTA party believes another has promulgated regulations that constitute a NAFTA-prohibited barrier to trade, it may call for the formation of a dispute settlement panel to hear its complaint.<sup>209</sup> NAFTA’s dispute resolution process includes two features intended to relax tensions between free trade and environmental protection.<sup>210</sup> First, during the dispute settlement process, the party challenging the regulation bears the burden of proving that the regulation violates NAFTA disciplines.<sup>211</sup> Placing the burden on the challenging party effectively creates a presumption that the environmental regulation is valid.<sup>212</sup> Second, either one of the parties or the panel itself may convene a panel of technical experts to render advisory opinions on scientific issues involved in the dispute.<sup>213</sup> This ensures that the panel can at least consider objective scientific opinions in its evaluation of environmental costs and benefits.

Similarly, Chapter 9 recognizes the right of each party to “establish the levels of protection that it considers appropriate.”<sup>214</sup> This Chapter also imposes, however, restrictive conditions on the type of standards that may be adopted. Notably, Chapter 9 provides

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205. NAFTA, *supra* note 5, at art. 712.3.

206. *Id.* at art. 712.4.

207. *Id.* at art. 712.6.

208. *See id.* at art. 723.

209. *See id.* at art. 723.3.

210. *See id.* at arts. 2001–22.

211. *See id.* at art. 723.6.

212. *See Esty, Making Trade, supra* note 116, at 373.

213. *See* NAFTA, *supra* note 5, at art. 723.3.

214. *Id.* at art. 904.2.



that parties should not apply standards that discriminate against products of other parties.<sup>215</sup> It also provides that parties may not prepare, maintain, or apply standards "with a view to or with the effect of creating an unnecessary obstacle to trade."<sup>216</sup>

How well these provisions accommodate the need to ensure open markets without overriding legitimate health, safety, and ecological programs is hotly contested. Trade commentators generally find NAFTA to be a model for future regional trade agreements.<sup>217</sup> Other observers, especially some environmental analysts, are less impressed with the balance that has been struck.<sup>218</sup> They fear that, far from improving on the multilateral trade rule embodied in the GATT, NAFTA's provisions may have weakened the position of environmental claims in relation to trade principles. These provisions have yet to be seriously tested. In the only NAFTA dispute brought to date, Canada successfully defended restrictions on access to its dairy products market.<sup>219</sup> This suggests, in combination with the absence of any broad-based assault on environmental regulation, that those who saw NAFTA tipping the balance toward market access and away from support for environmental protection may have overstated the case.

## 2. *Competitiveness*

During the negotiations, concern about the possible competitiveness advantage enjoyed by companies which operate in Mexico's less stringent regulatory environment received the lion's share of attention and generated the most political heat.<sup>220</sup> United States environmentalists argued that trade liberalization would induce in-

215. *See id.* at art. 904.3.

216. *Id.* at art. 904.4.

217. *See, e.g.,* Diana Hurwitz, *Fishing for Compromises Through NAFTA and Environmental Dispute-Settlement: The Tuna-Dolphin Controversy*, 35 NAT. RESOURCES J. 501 (1995); Dudley Althaus, *Gore Says NAFTA a Beginning: "Community of Democracies" Seen for Hemisphere*, HOUS. CHRON., Dec. 2, 1993, available in LEXIS, News Library, HCHRON File.

218. *See, e.g.,* Steve Charnovitz, *The North American Free Trade Agreement: Green Law or Green Spin?*, 26 LAW & POL'Y INT'L BUS. 1 (1994) [hereinafter Charnovitz, *NAFTA*]; Lori Wallach, *Hidden Dangers of GATT and NAFTA*, in THE CASE AGAINST FREE TRADE 23 (1993).

219. *See NAFTA Panel Mulls New U.S. Charges in Dairy-Poultry Case*, INSIDE U.S. TRADE, Sept. 6, 1996, at 1, 23 (reporting that panel refused to accept U.S. claims of trade discrimination).

220. *See Esty, Making Trade*, *supra* note 116, at 373.

dustries to migrate from the United States to Mexico, attracted by Mexico's status as a "pollution haven."<sup>221</sup> This migration would, in turn, increase the risks of pollution spillovers into the United States and fuel demands by U.S. industry for lower U.S. environmental standards.

NAFTA addresses these concerns in two different ways. First, NAFTA's investment chapter attempts to prevent parties from lowering their environmental standards to attract investments. Specifically, Article 1114 provides that

[t]he Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, a Party should not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. If a Party considers that another Party has offered such an encouragement, it may request consultations with the other Party and the two Parties shall consult with a view to avoiding any such encouragement.

There has been considerable debate over the sufficiency of this "pollution haven" provision. Environmental critics of NAFTA argued that this provision has no "bite"—no threat of "snap back" tariffs, eco-duties, or other trade sanctions—and would not deter parties from pursuing strategies of competitive environmental deregulation.<sup>222</sup> Ironically, many trade officials and some members of the business community expressed a contrary fear that this provision would open a potential protectionist point of attack on NAFTA and would result in a flood of complaints against U.S. companies and practices.<sup>223</sup>

Like other aspects of NAFTA, Article 1114 is ambiguous on key points. For example, while the meaning of "waiver" may be reasonably clear, it is less obvious what constitutes "derogation" of environmental measures. The meaning of "relaxing" environ-

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221. See, e.g., *NAFTA and the Environment*, N.Y. TIMES, Sept. 27, 1993, at A16.

222. See, e.g., PIERRE MARC JOHNSON & ANDRÉ BEAULIEU, *THE ENVIRONMENT AND NAFTA: UNDERSTANDING AND IMPLEMENTING THE NEW CONTINENTAL LAW* 43-47 (1996).

223. No such flood of cases has occurred. See NORTH AMERICAN COMMISSION FOR ENVIRONMENTAL COOPERATION, 1995 CEC ANN. REP. 21-22 [hereinafter 1995 ANNUAL REPORT].

mental standards is not at all clear. While the article explicitly prohibits parties from providing a formal “pass” on environmental rules, it does not make clear whether the parties can relax enforcement. NAFTA parties clearly remain free to lower their environmental standards for purposes other than attracting or retaining a specific investment. For example, they can relax their laws to increase overall export competitiveness.<sup>224</sup>

Second, the North American Agreement on Environmental Cooperation (the NAFTA Environmental “Side Agreement”),<sup>225</sup> negotiated by the Clinton Administration with Canada and Mexico after the conclusion of NAFTA itself, has a number of provisions designed to ensure that parties adequately enforce their environmental laws.<sup>226</sup> Here again, the negotiators balanced environmentalist demands against fears that enforcement requirements might be captured and manipulated for trade purposes by protectionists.

The Side Agreement establishes a trilateral North American Commission for Environmental Cooperation (“NACEC”)<sup>227</sup> designed to: (1) facilitate cooperation between NAFTA countries on environmental issues; (2) serve as a forum for regular ministerial-level meetings; (3) provide an independent Secretariat to report regularly on significant environmental issues confronting NAFTA parties; (4) ensure that environmental enforcement remains a priority in all three countries, including provision for an annual enforcement activity report; (5) coordinate with the trade officials in all three countries on any NAFTA-related environment issues; and (6) ensure that there are ample opportunities for public participation in the development and implementation of environmental laws and programs in all three NAFTA countries.<sup>228</sup>

Parties, individuals or nongovernmental organizations can turn to the NACEC to convene consultations with a NAFTA government regarding any “persistent pattern of failure . . . to effectively enforce” environmental laws or regulations.<sup>229</sup> If, however, no agree-

224. See Charnovitz, *NAFTA*, *supra* note 218.

225. See North American Agreement on Environmental Cooperation, Sept. 14, 1993, Can.-Mex.-U.S., 32 I.L.M. 1480 (1993) [hereinafter Side Agreement].

226. See *id.* at 1492–93.

227. See *id.* at 1485.

228. See *NAFTA: Hearings Before the House Comm. on Ways & Means*, 103d Cong. 47–48 (1993) (testimony of Carol M. Browner, Administrator, U.S. Environmental Protection Agency).

229. Side Agreement, *supra* note 225, at art. 24.

ment is reached, a NAFTA party may seek arbitration that could theoretically result in a "monetary enforcement assessment."<sup>230</sup> Several intervening steps, however, make the imposition of eco-duties most unlikely.<sup>231</sup> In fact, in the three years since NAFTA went into effect, no "lack of enforcement" dispute has ever gone to arbitration, much less resulted in penalties.<sup>232</sup>

Of greater significance are the elaborate cooperative environmental programs established by both the United States and Canada with Mexico. U.S. EPA and Mexican environmental authorities have developed an Integrated Border Environmental Plan and an action agenda of collaborative projects.<sup>233</sup> The United States and Mexico have also launched a series of joint environmental efforts.<sup>234</sup> Hundreds of Mexican enforcement officials have participated in training programs in the United States. Thus, the essence of NAFTA's response to trade-environment tensions is found, not in the Trade Agreement or the Side Agreement, but in the ongoing U.S. and Canadian efforts to help Mexico enforce its own environmental laws.<sup>235</sup>

### C. Comparative Analysis

Both the EC and NAFTA seek to promote market access and to blunt competitiveness concerns, but the relative emphasis on these two goals and the tools chosen vary considerably. This section compares the approaches that they have taken.

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230. *Id.* at arts. 35-36; see also Esty, *Making Trade*, *supra* note 116, at 378 (observing that there is almost no chance that the nonenforcement provision will ever result in trade penalties being imposed).

231. See Esty, *Making Trade*, *supra* note 116, at 378.

232. See 1995 ANNUAL REPORT, *supra* note 223. As of mid-April 1997, this is still true. Telephone Interview with David van Hoogstraten, EPA, Office of General Counsel (Apr. 15, 1997).

233. U.S. ENVIRONMENTAL PROTECTION AGENCY & SECRETARIA DE DESARROLLO URBANO Y ECOLOGIA, INTEGRATED ENVIRONMENTAL PLAN FOR THE MEXICO-U.S. BORDER AREA (1991); see also Esty, *Making Trade*, *supra* note 116, at 376-78.

234. See Esty, *Making Trade*, *supra* note 116, at 377-78.

235. See 1995 ANNUAL REPORT, *supra* note 223, at 85-88.

*I. Market Access*

All regional trade agreements focus on market access, at least to some degree. Thus, the concern that environmental regulations may become a guise for protectionism, as outlined in Part II, plays a key role in both the European Community and NAFTA systems. Both regimes seek to remove obstacles to trade, including regulatory barriers that may be created by environmental standards. On the other hand, both the EC Treaty and NAFTA recognize that trade liberalization should not override legitimate environmental standards.

There are some important similarities between the Community and NAFTA approaches to trade-environment concerns. Both systems promote trade liberalization through judicial bounding. The European Court of Justice has interpreted Article 30 of the EC Treaty broadly to cover a large number of Member States' measures, including environmental standards affecting trade. Similarly, NAFTA chapters 7B and 9 impose a set of disciplines designed to limit the use of unduly restrictive environmental standards affecting trade. Both the EC and NAFTA market access disciplines rely on comparable legal concepts such as nondiscrimination between domestic and imported products and the avoidance of unnecessary obstacles to trade.

The EC Treaty and NAFTA also contain language designed to ensure that legitimate environmental standards are not systematically sacrificed at the altar of trade liberalization. For example, Article 36 of the EC Treaty allows Member States to adopt trade-restrictive measures to protect human, animal and plant life. This provision could be used to justify a number of environmental product standards such as prohibitions on products containing hazardous substances. Moreover, in the *Danish Bottles* case, the European Court of Justice made clear that, to the extent that they are proportionate, trade-restrictive environmental products standards will be deemed legitimate under the rule of reason.<sup>236</sup>

Similarly, NAFTA provisions assure parties of the right to select their desired levels of public health and ecological protection and of the ability to adopt environmental requirements that are more strict than international standards. If another country objects

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236. See *supra* text accompanying note 133.

to these standards, it bears the burden of proving a violation of NAFTA requirements. Specifically, the challenger must show that the standards do not fall within the established environmental exceptions. Under NAFTA guidelines, there is no unnecessary obstacle to trade if the intent of the standard is to promote environmental protection and if it is only applied as necessary to achieve the jurisdiction's selected level of environmental protection. Indeed, because NAFTA contains no proportionality test, it appears to set a lower hurdle for environmental rules.<sup>237</sup> NAFTA's overriding objective of promoting sustainable development<sup>238</sup> and its investment provisions designed to blunt regulatory races toward the bottom have won the praise of environmentalists. Former EPA Administrator William Reilly called NAFTA the "greenest" trade agreement ever drafted.<sup>239</sup>

Beyond judicial bounding, the approach to environmental protection varies quite considerably between the EC and NAFTA. In the EC, harmonization of product standards has emerged as a central tool to address market access concerns. As a result, the EC has issued a large number of harmonization Directives, and a growing institutional structure supports the development of an EC supranational environmental law and regulatory system.<sup>240</sup> For several reasons, the creators of NAFTA did not pursue harmonization as a primary response to trade-environment tensions. First, NAFTA does not aim to achieve the deep level of economic integration envisioned by the EC.<sup>241</sup> In contrast to the EC Treaty, NAFTA does not create a set of institutions with broad regulatory powers. Second, at the time NAFTA was negotiated, U.S. and Canadian environ-

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237. NAFTA tracks the GATT rules in requiring that environmental policies that disrupt trade be "necessary" (defined in practice to mean the "least trade restrictive" tool available) to accomplish the established goals. See ESTY, GREENING THE GATT, *supra* note 8, at 48-50; Esty, *Making Trade*, *supra* note 116, at 380. In contrast, recent case law suggests that the European Court of Justice requires both that the environmental policy be the least trade-restrictive tool available and that its trade disruptive impacts be proportionate to the environmental gains anticipated. See generally Damien Geradin & Raoul Stewardson, *Trade and Environment: Some Lessons from Castlemaine Tooheys (Australia) and Danish Bottles (European Community)*, 44 INT'L & COMP. L.Q. 41 (1995).

238. See NAFTA, *supra* note 5, at the Preamble.

239. See EPA Head Defends NAFTA as Greenest Trade Pact Ever, REUTERS FIN. SERV., Aug. 13, 1992, available in LEXIS, Busfin Library, Reufin File.

240. See *infra* note 264.

241. See generally Frederick M. Abbott, *Integration Without Institutions: The NAFTA Mutation of the EC Model and the Future of the GATT Regime*, 40 AM. J. COMP. L. 917 (1992).

mentalists strongly opposed harmonization.<sup>242</sup> They shared the belief that U.S. and Canadian environmental standards represented the highest levels of environmental protection and that any harmonization with Mexican standards would compromise domestic environmental protection.<sup>243</sup>

This resistance on the part of U.S. and Canadian environmental communities resulted in a NAFTA focus on the preservation of national environmental policy prerogatives, not the creation of new supranational environmental rules or authorities. From an environmental perspective, this strategic choice appears to have been a mistake. Regardless of the standard set, many environmental problems go unattended because of a lack of resources and weak governmental commitments to policy development, implementation, and enforcement. NAFTA presented an opportunity to supplement the existing national regulatory systems with additional institutional support at the international level. The fact that NAFTA does not create much of an international environmental policy structure represents a missed opportunity to advance the environmental cause.<sup>244</sup>

## 2. *Competitiveness*

Concern in the United States about the impact of NAFTA on the competitiveness of U.S. industry has been dramatic. Fueled by Ross Perot's memorable suggestion that NAFTA would result in a "giant sucking sound" as factories and jobs moved to Mexico,<sup>245</sup> an active coalition of anti-NAFTA labor and environmental<sup>246</sup> in-

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242. See, e.g., Keith Bradsher, *Last Call to Arms on the Trade Pact*, N.Y. TIMES, Aug. 23, 1993, at D3 (reporting opposition of advocacy group, Public Citizen, based on fears that American regulations would be challenged as illegal trade barriers).

243. Of course, fears of downward harmonization could have been dealt with by focusing on the adoption of minimum standards under NAFTA.

244. Mexico, as noted earlier, has received some institutional reinforcement, but this is largely due to environmental programs running in parallel with NAFTA, not because of the agreement *per se*. The creation of the North American Commission on Environmental Cooperation is a very modest boost to the existing institutional structure. See 1995 ANNUAL REPORT, *supra* note 223, at Annex I: North American Report on Environmental Enforcement.

245. See, e.g., George F. Will, *Free Trade, Faster Change*, WASH. POST, Oct. 11, 1992, at C7.

246. Note that ultimately a significant number of U.S. environmental groups supported NAFTA. See ESTY, GREENING THE GATT, *supra* note 8, at 28, for an explanation of how NAFTA divided the U.S. environmentalist community into "sustainable develop-

terests made fears about the disadvantage U.S. industry would suffer in a unified North American marketplace a central NAFTA focus. The U.S. Trade Representative ("USTR") made a major effort to win over environmental skeptics.<sup>247</sup> EPA officials testified more than a dozen times before House and Senate Committees about NAFTA and the Environmental Side Agreement.<sup>248</sup> Every USTR discussion of the merits of the Treaty included some consideration of the environmental competitiveness issue.<sup>249</sup>

The investment provisions designed to deter shifts to pollution havens and the Side Agreement language on enforcement discussed above were introduced primarily to address these fears.<sup>250</sup> The ongoing U.S. and Canadian efforts to reinforce Mexico's regulatory capacity are also aimed at blunting the potential differences in environmental compliance costs that might induce industrial relocation or trigger a race toward the bottom.<sup>251</sup> These provisions represent some of the most innovative parts of NAFTA. Indeed, there are no corresponding elements in the EC Treaty. As investment conditions become a more significant dimension of trade liberalization, these provisions may grow in significance.<sup>252</sup>

In contrast, competitiveness concerns have not been at the forefront of the EC policy debate. Although competitiveness pressures exist, Euro-skeptics have not harped on the prospect of industry migration. This reflects, in part, the fact that there is no true "Europolitics."<sup>253</sup> EC bureaucrats, rather than politicians and the

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ment" environmentalists who were pro-NAFTA and a "limits to growth" faction opposed to the agreement.

247. See, e.g., GARY C. HUFBAUER & JEFFREY J. SCHOTT, NORTH AMERICAN FREE TRADE: ISSUES AND RECOMMENDATIONS 133-34 (1992).

248. See, e.g., *Environmental Implications of NAFTA: Hearings Before the House Comm. on Merchant Marine and Fisheries*, 103d Cong. 14-18, 80-98 (1993) (statement of Carol M. Browner, Administrator, EPA); *NAFTA (Part 2): Hearings Before the Subcomm. on Commerce, Consumer Protection and Competitiveness of the House Comm. on Energy and Commerce*, 103d Cong. 194-212 (1993) (statement of Alan D. Hecht, Acting Assistant Administrator, International Activities, EPA); *NAFTA and its Environmental Side Agreements: Hearings Before the Senate Comm. on Environment and Public Works*, 103d Cong. 68-84 (1993) (statement of Carol M. Browner, Administrator, EPA).

249. See *Esty, Making Trade*, *supra* note 116, at 374-75.

250. See *id.* at 374-78.

251. See *id.*

252. See, for example, the OECD effort to draft a Multilateral Agreement on Investment and the mounting pressure to include environmental provisions within this treaty.

253. See generally Joseph Weiler, *The Transformation of Europe*, 100 YALE L.J. 2403 (1991) (characterizing the EC as a "non-unitary polity"); B. Guy Peter, *Bureaucratic*



public, address broad policy issues such as competitiveness concerns. As a result, the European debate is both less passionate and less public than the comparable NAFTA discussions. Moreover, interest groups are generally less analytically sophisticated—and therefore less powerful—in the EC than in the United States.<sup>254</sup> EC environmental groups, in particular, have done little to raise concerns about competitiveness impacts on environmental policymaking processes.<sup>255</sup>

To the extent that competitiveness concerns arise in the EC, they generally focus on the issue of distortions of competition. Member States with high environmental protection standards, most notably Germany, fear that such standards represent a competitive disadvantage to their companies.<sup>256</sup> The NAFTA debate, in contrast, focused almost entirely on the issues of industrial migration and the race toward the bottom. U.S. environmentalists feared that Mexico's less demanding standards would attract U.S. industry, and that the threat of industrial relocation would force the United States, in a strategic countermove, to lower its environmental standards to prevent such migration.

To understand why the competitiveness issue took such different forms in the EC and NAFTA, we must consider two questions: why has the prospect that environmental cost differentials would lead to industrial migration and a race toward the bottom been less significant, or at least perceived as less significant, in the EC than in NAFTA? Why has the focus in the EC context been on preventing distortions of competition, such as lost market shares or profits, rather than on other dimensions of the competitiveness problem?

Five factors seem to make industrial relocation less likely to occur in the EC than in NAFTA. First, because environmental standards tend generally to be less stringent in the EC than in the United States, environmental compliance costs represent a smaller

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*Politics and the Institutions of the European Community*, in *EURO-POLITICS: INSTITUTIONS AND POLICYMAKING IN THE "NEW" EUROPEAN COMMUNITY* 75 (Alberta M. Sbragia ed., 1992).

254. For example, the European Environmental Bureau ("EEB"), which represents more than 100 grassroots, nongovernmental environmental groups, has only a handful of staff in Brussels. Compared with large industrial associations, their output is quite limited.

255. Some German environmental organizations have, however, accused the German government of reducing the stringency of environmental standards in order to avoid suffering competitive disadvantages. See *Government Accused of Softening Stance on Environment in Face of Economic Crisis*, Int'l Env't Rep. (BNA), Jan. 8, 1997, at 25.

256. See Schnutenhaus, *supra* note 180, at 323.

fraction of the total cost structure for European companies.<sup>257</sup> The potential gains of moving to jurisdictions with low environmental standards are therefore less significant for European companies than for American companies, reducing the threat of industrial relocation.

Second, there is less variation between high- and low-standard countries in the EC than in NAFTA. Indeed, the discrepancies between the environmental protection requirements of Germany and a low-standard state like Portugal pale in comparison to the perceived gaps between the levels of U.S. and Mexican protections.<sup>258</sup> As a result, from a compliance costs standpoint, the potential gains that a German company can realize by moving to Spain are less significant than the gains that an American firm might realize by moving to Mexico.

Third, in the EC, there are a number of legal obstacles to industry migration that do not exist in the United States. For example, in most European countries, companies that close a production plant must provide workers with high severance pay and long-term notice. To the extent that such laws render plant closures extremely difficult, these obstacles increase the transaction costs, and hence reduce the appeal of moving from one European country to another.

Fourth, the quality of transportation and telecommunications infrastructure varies considerably among European countries. Infrastructure is generally superior in the northern Member States. Potential problems in getting products to market militate against industry migration in the EC. This problem is less significant in NAFTA where production facilities can be located on the U.S.-Mexico border. Products manufactured on the border can be shipped with relative ease to the major markets in the United States.

Finally, differences in language, legal systems, and administrative traditions across the EC considerably increase the "search

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257. For instance, hazardous waste management standards tend to be less strict in the EC than in the United States. See GERADIN, *COMPARATIVE STUDY*, *supra* note 68. In addition, there is no equivalent to the U.S. Superfund regime in the EC. Generally, for a comparison of EC and U.S. environmental standards, see TURNER T. SMITH JR. & PASCALE KROMAREK, *UNDERSTANDING US AND EUROPEAN ENVIRONMENTAL LAW: A PRACTITIONER'S GUIDE* (1989).

258. The fact that environmental process standards have been widely harmonized across EC Member States makes wide variations in the rigor of environmental regulation hard to sustain. See *supra* text accompanying notes 159-185.

costs” for companies contemplating an intra-Europe relocation. In the NAFTA context, companies need only explore one alternative market, and information on Mexican standards is generally easy to obtain.

As we noted earlier, it is more difficult to explain why the risk of a race toward the bottom has not been seen as a major issue in the EC.<sup>259</sup> The lack of a real fear of industrial relocation has certainly been a factor limiting the gains that a Member State could anticipate from any attempt to relax environmental requirements. To the extent that Member States *are* concerned that high environmental standards may affect the competitiveness of their industries, a race toward the bottom could be triggered.

Several factors indicate that a race-toward-the-bottom dynamic is likely to become a more serious concern in the EC. First, the completion of the internal market will intensify competition and make cost differences across Member States more important.<sup>260</sup> Second, the possible integration into the EC of a new set of countries from Eastern and Central Europe with poor environmental records may exacerbate competitiveness fears in the high-standard Member States.<sup>261</sup>

The EC’s focus on distortions of competition reflects several factors of the European market. First, while European companies usually face strong competition from companies located in other Member States, most U.S. industries face relatively little competition from Mexican companies. Because the Mexican economy is about one-twentieth the size of the U.S. economy, competition from Mexico is unlikely to affect the competitive dynamics of most U.S. markets. Thus, even if Mexican companies have an environmental-policy-based cost advantage, their impact on most North American markets is small. Many U.S. companies saw NAFTA as an opportunity, not as a threat. A number of large U.S. firms set up facilities in Mexico to take advantage of lower production costs.<sup>262</sup> The American auto industry, for example, welcomed the opportu-

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259. See *supra* text accompanying note 186.

260. See Richard B. Stewart, *Environmental Law in the United States and the European Community: Spillovers, Cooperation, Rivalry, Institutions*, 1992 U. CHI. LEGAL F. 41, 63–65.

261. See *Central/Eastern European Nations Must Adopt Environmental Laws to Enter EU*, 19 Int’l Env’t Rep. (BNA) 803 (Sept. 18, 1996).

262. See, e.g., James Sterngold, *NAFTA Trade-Off: Some Jobs Lost, Others Gained*, N.Y. TIMES, Oct. 9, 1995, at A1.

nity for co-production with Mexican facilities as a way of lowering costs and making their vehicles more price competitive.<sup>263</sup> Some European companies, though not many, are siting facilities across Europe to take advantage of such cost differentials.

The EC and NAFTA have taken divergent approaches in their response to competitiveness concerns. The EC reaction has centered on harmonization of standards; NAFTA has committed to strengthened enforcement of *national* environmental standards. As a result, a significant EC environmental infrastructure has developed in Brussels and Copenhagen.<sup>264</sup> This important institutional commitment to the environment has fostered the development of a growing body of EC environmental law. In NAFTA, the transnational institutional commitment has been far more modest; the NACEC in Montreal has a staff of just a few dozen people. Nevertheless the focus on enforcement and implementation of environmental commitments has been far stronger in the U.S.-Mexico-Canada context than in the EC.

Although the EC emphasis on adopting supranational environmental rules has paid important dividends, the impact on actual environmental quality has been quite limited in some countries by a lack of focus on implementation.<sup>265</sup> Likewise, the minimal institutional commitment in NAFTA has undercut potential environmental gains from supranational programs and efforts. A trade agreement that incorporated *both* law-building and enforcement/implementation strategies might be even more successful.

## V. LESSONS FOR THE MULTILATERAL TRADING SYSTEM

Environmental issues have become a major preoccupation in the multilateral trading system.<sup>266</sup> The WTO's Committee on Trade

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263. See, e.g., Thomas J. Leuck, *Businesses Say Most Jobs Now Exist in Industries Trade Accord Will Help*, N.Y. TIMES, Nov. 18, 1993, at A22; Anthony DePalma, *Reshaping Mexico's AutoFuture*, N.Y. TIMES, Nov. 16, 1993, at D1.

264. The EC institutions which specialize in environmental matters are the Commission Directorate General XI, which is responsible for preparing and ensuring the implementation of Community laws and environmental policy, and the European Environment Agency, which oversees information gathering tasks.

265. See *supra* text accompanying notes 187-193.

266. See GATT, INTERNATIONAL TRADE 90-91 19-40 (1992) [hereinafter TRADE AND ENVIRONMENT REPORT]; WTO COMMITTEE ON TRADE AND ENVIRONMENT (visited Apr. 9, 1997) <<http://www.wto.org/wto/Trade+Env/tocte.html>>; Daniel C. Esty, *Green-*

and Environment (“CTE”) has been meeting regularly to identify ways to alleviate the tension between trade and environmental policies.<sup>267</sup> Although the CTE had little progress to report at the December 1996 WTO Ministerial Conference in Singapore, WTO Director General Ruggiero has declared “trade and environment” to be one of the organization’s central post-Uruguay Round challenges.<sup>268</sup> Despite their protestations of interest, the managers of the international trading system—both the WTO’s Secretariat and the national representatives who govern it—have failed to take seriously the need to integrate better the goals of environmental protection and trade liberalization.

Continued disregard of this linkage imperils the WTO and threatens to weaken its capacity to serve as a key manager of the international economic system. Thus, the WTO should draw on the EC and NAFTA experiences for guidance on how to reconcile trade-environment tensions. This Part first explains why it is imperative that the international trading system address environmental issues. It then reviews how the WTO could apply the lessons from regional trade agreements to make the simultaneous pursuit of trade liberalization and environmental protection more mutually reinforcing.

#### *A. Perils of Environmental Disregard*

From a theoretical perspective, attention to environmental concerns improves both the substantive performance and political attractiveness of multilateral trade agreements. Fundamentally, the international trading system needs an environmental dimension to ensure its internal coherence as the world’s economic management structure. Inattention to environmental matters jeopardizes the potential for obtaining the full net welfare benefits of trade liberalization. Specifically, the efficacy of the WTO depends upon the

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*ing World Trade, in THE WORLD TRADING SYSTEM: CHALLENGES AHEAD* 69 (Jeffrey Schott ed., 1996) [hereinafter Esty, *World Trade*].

267. See generally Geert Van Calster, *The World Trade Organisation Committee on Trade and Environment: Exploring the Challenges of the Greening of Free Trade*, 4 EUR. ENVTL. L. REV. 44 (1996); Esty, *World Trade*, *supra* note 266 (criticizing the CTE for slow progress).

268. See, e.g., WTO Director General Renato Ruggiero, *The International Trading System: Challenges Ahead*, Address at the Institute for International Economics Conference (June 24, 1996).

implementation of existing rules and regulations that internalize environmental externalities and prevent the over-exploitation of common resources. Absent such provisions, unconstrained market forces at play in the international economic sphere will result in allocative inefficiencies and environmental degradation, thereby diminishing the trade-derived gains in social welfare.<sup>269</sup>

Furthermore, the higher the degree of economic integration in a trading system, the greater the level of policy coordination and integration required in other realms such as environmental regulation.<sup>270</sup> Without such parallel integration, conflicts between market access commitments and divergent national policy choices promise to grow.<sup>271</sup> Likewise, unhappiness in high-standard countries will mount over the competitive advantage seized by companies operating in low-standard jurisdictions where goods are produced under conditions considered morally sub-par.

Finally, new trade agreements are more likely to win approval if environmentalists can be brought into the pro-free-trade camp. In a number of countries critical to further progress toward freer trade, notably the United States, environmental interest groups represent a key "swing" constituency.<sup>272</sup>

### *B. Learning from Regional Trade Agreements*

The interface between global trade and environmental protection policies reflects both the market access and competitiveness concerns found in regional trade liberalization efforts. Market access questions have always been at the heart of multilateral trade

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269. See Bhagwati & Srinivasan, *supra* note 16, at 196-99.

270. See Esty, *Federalism*, *supra* note 17, at 613-38; see also ROBERT Z. LAWRENCE ET AL., A VISION FOR THE WORLD ECONOMY: OPENNESS, DIVERSITY, AND COHESION 7-8 (1996) (arguing that deeper political coordination facilitates trade liberalization); HENRY M. HART, JR. & ALBERT M. SACKS, THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW lxii (William N. Eskridge, Jr. & Philip P. Frickey eds., 1994) (1958) (discussing New Deal-era recognition that federal law provided "conditions of continuity" needed to facilitate creation of national market).

271. See Esty, *Federalism*, *supra* note 17, at 624-27 (explaining how the lack of policy integration creates tensions).

272. See JOHN AUDLEY, GREEN POLITICS AND GLOBAL TRADE (forthcoming 1997); Daniel C. Esty, *Environmentalists and Trade Policymaking*, in REPRESENTATION OF CONSTITUENT INTERESTS IN THE DESIGN AND IMPLEMENTATION OF U.S. TRADE POLICIES (Alan V. Deardorff & Robert M. Stern eds., forthcoming 1997).

negotiations.<sup>273</sup> Competitiveness concerns are increasingly cited as a reason not to proceed with further trade liberalization.<sup>274</sup>

### *I. Market Access*

The market access concerns that derive from differential environmental product standards among jurisdictions have received a great deal of attention in the WTO context. Over the last few years, a number of disputes between WTO Members have demonstrated the uneasy relationship between the free movement of goods and environmental regulation in the global trade context. Such disputes include the EC ban on U.S. beef that had been treated with growth hormones,<sup>275</sup> the EC challenge to the U.S. fleetwide Corporate Average Fuel Economy (CAFE) mileage requirements for automobiles,<sup>276</sup> and the Venezuelan GATT case brought against the U.S. reformulated gasoline regulations issued under the 1990 Clean Air Act.<sup>277</sup> In each of these cases, the exporting nation felt that environmental standards had been crafted to advantage domestic producers.

Like the EC Treaty and NAFTA, the WTO contains provisions to deal with such market access concerns. GATT Article III's national treatment clause prohibits WTO Members from adopting standards that discriminate against products made in, or exported from, other Member States.<sup>278</sup> In addition, the Technical Barriers to Trade Agreement ("TBT Agreement")<sup>279</sup> and the Agreement on

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273. See ESTY, GREENING THE GATT, *supra* note 8, at 247-48 (reviewing the market access commitments made in the eight "rounds" of multilateral trade negotiations since World War II).

274. See, e.g., WILLIAM GREIDER, ONE WORLD, READY OR NOT: THE MANIC LOGIC OF GLOBAL CAPITALISM (1997); SASKIA SASSEN, LOSING CONTROL? SOVEREIGNTY IN AN AGE OF GLOBALIZATION (1996).

275. Generally on this dispute see Allen Dick, Note, *The EC Hormone Ban Dispute and the Application of the Dispute Settlement Provisions of the Standards Code*, 10 MICH. J. INT'L L. 872 (1989); Werner P. Meng, *The Hormone Conflict Between the EEC and the United States Within the Context of GATT*, 11 MICH. J. INT'L L. 819 (1990).

276. See generally Charnovitz, *Automobile Taxes*, *supra* note 23 (discussing the nature and outcome of the dispute between the EC and the U.S. over the U.S. gas guzzler tax and the U.S. CAFE law).

277. See *supra* note 109.

278. See, e.g., United States: Taxes on Petroleum and Certain Imported Substances, June 17, 1987, GATT B.I.S.D. (34th Supp.) at 154-59 (1988) [hereinafter *Taxes on Petroleum*] (finding by GATT dispute settlement panel that petroleum tax, which discriminated between domestic and imported oil, was contrary to GATT Article III).

279. Agreement on Technical Barriers to Trade, GATT B.I.S.D. (26th Supp.) at 8

Sanitary and PhytoSanitary measures (“SPS Agreement”)<sup>280</sup> impose specific disciplines on government regulations that specify the technical characteristics of products and health requirements respectively.<sup>281</sup> Indeed, the success in reducing tariffs—the most blatant of trade barriers—over the last four decades has shifted the focus of recent trade liberalization efforts to “non-tariff barriers,” including environmental standards.<sup>282</sup>

The WTO also contains language designed to safeguard legitimate environmental regulations. GATT Articles XX(b) and XX(g) authorize (under narrowly defined circumstances) the adoption of trade-restrictive measures to promote specified environmental objectives.<sup>283</sup> The TBT and SPS agreements also contain language designed to preserve the freedom of WTO Members to adopt and enforce appropriate environmental standards.

Environmentalists, however, criticize these rules as biased in favor of free trade.<sup>284</sup> They note that while the free trade provisions of the WTO have an extremely broad scope, the environmental exceptions are narrowly defined.<sup>285</sup> The sense of imbalance is heightened by the fact that the exposure goes only one way: either the public health or environmental protection standard is deemed appropriate, or it is not allowed to stand. Under WTO “judicial bounding,” there is no prospect of strengthening the environmental program or removing trade obstacles to better environmental results.

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(1979). See generally on the TBT Agreement, Steve Charnovitz, *The World Trade Organization and Environmental Supervision*, 17 INT’L ENV’T REP. (BNA) 89 (1994) [hereinafter Charnovitz, *WTO Environmental Supervision*].

280. Agreement on the Application of Sanitary and Phytosanitary Measures, reprinted in FINAL ACT EMBODYING THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 69 (1994). Generally on the SPS Agreement see John J. Barcelló III, *Product Standards to Protect the Local Environment—the GATT and the Uruguay Round Sanitary and Phytosanitary Agreement*, 27 CORNELL INT’L L.J. 755 (1994).

281. See generally SYKES, *supra* note 47 (reviewing the impact of the TBT and SPS agreements on the ability of WTO members to adopt technical, health and safety standards).

282. See JACKSON, TRADING SYSTEM, *supra* note 45, at 117 (discussing the shift in focus of the international trading system from tariff reduction to non-tariff barriers); see also Peter F. Cowhey & Jonathan D. Aronson, *A New Trade Order*, 72 FOREIGN AFF. 183 (1993) (discussing the market access focus of today’s trade regime).

283. Generally on Article XX see Charnovitz, *Environmental Exceptions*, *supra* note 204, at 37; Jan Klabbbers, *Jurisprudence in International Trade Law—Article XX of GATT*, J. WORLD TRADE, Apr. 1992, at 63.

284. See, e.g., Charnovitz, *WTO Environmental Supervision*, *supra* note 279.

285. See, e.g., Charnovitz, *WTO Environmental Supervision*, *supra* note 279; ESTY, GREENING THE GATT, *supra* note 8, at 99–136.



This contrasts with the EC strategy which has advanced the regulation of environmental product standards via its harmonization process.<sup>286</sup>

Environmentalists also observe that WTO dispute settlement panels, the quasi-judicial bodies that are in charge of assessing the compatibility of trade-restrictive standards with the WTO rules, lack the neutrality and the expertise to provide a fair balance between trade and environmental objectives.<sup>287</sup> Such bodies have also failed to take into account in their assessments widely recognized environmental values and principles.<sup>288</sup> Again, this perception of weakness in the multilateral trading system contrasts with the willingness of the European Court of Justice to use its authority to refine free trade rules in order to promote legitimate environmental values.<sup>289</sup> Contrary to the WTO practice, the EC Treaty also recognizes the importance of the principle of preventive action, the Polluter Pays Principle, and the precautionary principle as core policy rules governing Community action.<sup>290</sup> Thus, while the EC is designed to promote free trade, its approach to judicial bounding reflects more careful balancing of trade and environment goals than does the WTO. This more refined approach to trade and environment conflicts may provide a useful starting point for reform of the WTO's judicial bounding practices.

Another central, and perhaps even more significant, difference between the WTO and the EC is that the former does not attempt to harmonize environmental product standards. Like Chapters 7B and 9 of NAFTA, the TBT and SPS Agreements merely urge WTO Members to base their regulatory requirements on international standards.<sup>291</sup> The flaw in this approach is that standards in many

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286. See *supra* text accompanying notes 138–153.

287. Environmentalists note that dispute settlement panels are staffed with trade officials who generally have little understanding or sympathy for environmental issues. The environmentalists further fault the WTO dispute settlement process for failing to provide for technical expertise where cases turn on scientific questions. Finally, they observe that panels operate in secrecy, refusing the input of environmental institutions and nongovernmental groups. See, e.g., Goldman, *Resolving, supra* note 73, at 1285–87.

288. For example, in *Taxes on Petroleum, supra* note 278, at 162, the GATT panel concluded that the Polluter Pays Principle was not to be taken into account in its assessment of the challenged regulations. See generally ESTY, *GREENING THE GATT, supra* note 8, at 52–53, 77–78.

289. See, e.g., *supra* text accompanying notes 132–136.

290. See EC TREATY, *supra* note 4, at art. 130r(2).

291. See TBT Agreement, *supra* note 110, at 10; SPS Agreement, *supra* note 280, at 70.

substantive areas have not been harmonized and divergent national rules thus continue to inhibit the free movement of goods.

Several organizations and countries have recently initiated efforts to develop common standards, or at least some convergence between major trade partners. The United States, for example, has proposed the creation of an international forum to harmonize U.S.-EC environment and safety regulations for automobiles. This proposal recommends that the mandate of the UN Economic Commission for Europe ("UN/ECE") working party on vehicle construction be extended.<sup>292</sup> Similarly, the EC Commission has proposed alignment of Europe's emission standards for non-road motor vehicles with U.S. requirements so as to facilitate a large trans-Atlantic market in such vehicles.<sup>293</sup>

Pressure for worldwide standards that improve market access are likely to increase with globalization and will become difficult for the WTO to ignore. In some cases, adoption of a single standard may not be feasible, or even desirable. But other, looser forms of harmonization drawn from regional trade agreements might be appropriate for the WTO. The "essential requirements" harmonization strategy used in the EC seems like an especially useful precedent. As we have seen, the central characteristic of this approach is that harmonization is limited to the adoption of core standards,<sup>294</sup> and that the task of developing the detailed product specifications is left to European standardization organizations.

Under the auspices of the WTO, officials from Member countries might undertake to reach agreement on a set of core regulatory standards for selected products, designed to facilitate global trade in these goods. Technical expert groups from pertinent standardization organizations might undertake to draft standards that fulfill such requirements. To answer the traditional critique from environmentalists that the work of the WTO or international standardization groups does not take sufficient account of environmental considerations, it might make sense to have the technical analysis and work done under the supervision of a committee of inde-

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292. See *Car Makers Search for Common Environmental Standards*, EUR. ENV'T, Apr. 16, 1996, at 7.

293. See *Transatlantic Norms Agreed on for Mobile Machinery Emissions*, ENV'T WATCH, July 3, 1996, at 14.

294. See *supra* Part III.F.1.d.

pendent environmental experts, UNEP, or a revamped international environmental regime.<sup>295</sup>

Similarly, while uniform standards on pesticide residues on food might not be appropriate because of differences in dietary exposure (for example, the Japanese eat more rice than Americans and thus might want a more stringent rice residue rule), pre-standard setting harmonization of data collection and testing protocols, as the EC has done with respect to some chemicals,<sup>296</sup> would be valuable as a mechanism for improving the flow of goods in the global marketplace.

## 2. *Competitiveness*

Although many WTO officials dismiss competitiveness concerns as a non-issue,<sup>297</sup> industry and environmental groups in industrialized nations have increasingly complained about what they perceive as unfair competition from low-environmental-standard developing nations.<sup>298</sup> Failure to take these concerns seriously—especially where the sense of unfairness derives in part from production processes that entail transboundary pollution spillovers—creates the risk of ongoing trade-environment friction within the international trading system. At the same time, the WTO must guard against a protectionist response to competitiveness pressures.

The WTO has at its disposal the same variety of options available to regional trade agreements to mitigate welfare-reducing competitiveness dynamics. Where environmental policy differences reflect variations in circumstances across countries, a laissez-faire approach may be appropriate. Efforts to blunt all environmentally derived competitive advantages would undermine the potential gains from trade and deprive countries of the opportunity to exploit their

295. See Daniel C. Esty, *The Case for a Global Environmental Organization*, in *MANAGING THE WORLD ECONOMY: FIFTY YEARS AFTER BRETTON WOODS* 287-310 (Peter B. Kenan ed., 1994) (calling for a new Global Environmental Organization).

296. See *supra* text accompanying note 145.

297. See TRADE AND ENVIRONMENT REPORT, *supra* note 266.

298. See, e.g., Robert Koenig, *Experts Fear "Eco-Dumping" by Nations with Less-Stringent Environmental Laws*, J. COM., Mar. 27, 1996, available in LEXIS, News Library, JOC File; Steve Charnovitz, *Environmental Trade Measures and Economic Competitiveness: An Overview of the Issues*, in OECD, ENVIRONMENTAL POLICIES AND INDUSTRIAL COMPETITIVENESS 141 (1993); Charles Arden-Clarke, *Environment Competitiveness, and Countervailing Measures*, in OECD, ENVIRONMENTAL POLICIES AND INDUSTRIAL COMPETITIVENESS 150 (1993).

natural comparative advantages. But where transboundary externalities are present, laissez-faire policies yield allocative inefficiency, reduced welfare gains from trade, and unnecessary environmental degradation.

The imposition of trade restrictions at the national level is likely to be a sub-optimal approach to competitiveness concerns. Eco-duties are susceptible to "capture" by protectionists whose ultimate goals are not environmental.<sup>299</sup> Moreover, calculating the proper level of an eco-duty—high enough to countervail inappropriately low standards, but no higher—introduces a range of practical problems: what standard is appropriate? Who determines whether a country's policy is inadequate? How do you adjust for standards that are strong but enforcement that is lax?<sup>300</sup>

Inevitably, however, some countries will invoke these rather crude devices because they can be advanced by national governments acting alone in defense of their own environmental requirements and in response to perceived unfair advantages obtained by others. Obviously, the unilateralism inherent in eco-duties—as well as subsidies for polluters<sup>301</sup>—weakens the multilateralism necessary for a smoothly functioning international economic regime.

Trade measures imposed based on violations of multilateral environmental agreements generate less tension with the trade system.<sup>302</sup> To encourage international standard-setting, the WTO should move quickly to amend its rules. Alternatively, it could find mechanisms to allow the trading system to acknowledge and reinforce trade measures which the parties apply—to multilateral environmental agreements, groups of countries or even individual nations—in order to discipline violations of environmental treaties or to deter environmental free-riding.

Collaboration in enforcing national environmental laws represents another significant policy advance over unilateral actions and

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299. See Arvind Subramanian, *Trade Measures for Environment: A Nearly Empty Box*, 15 *WORLD ECON.* 135 (1992).

300. See Barceló, *supra* note 53, at 12–21 (analyzing arguments supporting countervailing duty regimes).

301. "Green" subsidies, defraying the cost of pollution control investments, represent a less aggressive stance toward competitiveness concerns. But such subsidies, nevertheless, may be captured by protectionists or otherwise subverted in ways that are similar to eco-duties. See ESTY, *GREENING THE GATT*, *supra* note 8, at 169–71.

302. See *id.* at 142–52 (explaining the various degrees of multilateral environmental agreements, from standard-setting to compliance-monitoring to enforcement).

a potential way forward on the competitiveness front. Allowing countries to set their own standards minimizes the risk of riding roughshod over natural comparative advantages. But insisting that every nation have some standard reduces the prospect of a race-toward-the-bottom dynamic driving environmental policies to sub-optimal levels. Especially where the collaboration includes technical training and support, the likely result is improved low-standard country environmental performance where it counts the most—in the field (or factory, mine, or waste site).

This approach, employed in NAFTA, permits less developed countries to apply less strict standards (as trade theory suggests they should), but ensures that some degree of commitment to environmental protection will be in place. As noted earlier, narrowing the environmental policy “gap” between countries reduces the likelihood of race-toward-the-bottom strategic regulatory behavior by shrinking the potential cost savings to a company considering an environmental-compliance-cost-driven locational shift. The use of each country’s own environmental requirements as the touchstone for policy adequacy allows for diversity in circumstances, while blunting, at least to some extent, the risk of races toward the bottom in environmental policy.

Divergent environmental standards cause the greatest stress when some parties have no effective environmental program whatsoever. In most countries, pollution control standards exist in law but are not enforced in practice. Where reasonable requirements are on the books but are systematically disregarded, collaborative environmental programs are especially likely to be useful. Such capacity-building efforts respond directly to the needs of low-standard nations and advance the interest of all countries in moving toward optimal environmental policies and maintaining a proper foundation for competition in the global marketplace.

As in regional trade agreements, the harmonization of standards offers a particularly promising mechanism for ensuring that inappropriate competition on the basis of environmental degradation does not occur. The EC experience teaches that harmonization approaches need not be rigid and absolute. Where differences in local circumstances would make uniform standards inefficient, these differences can be taken into account through flexible harmonization strategies. Minimum standards, multi-tier harmonization, differential standards based on ambient exposure limits, or the estab-

lishment of common essential requirements are likely to prove more useful than uniform standards.<sup>303</sup> These techniques balance the need to promote market access and to prevent a counterproductive race toward the bottom with the efficiency gains of allowing jurisdictions to exploit their natural advantages and different circumstances.

As noted above, there are a variety of international organizations to which the WTO could turn for help in setting environmental standards. Indeed, given the deep distrust of WTO environmental decisionmaking, it makes sense for standard-setting to be done by the ISO, the World Bank, UNEP, or a new global environmental body. The WTO could then incorporate the standards and even determinations of compliance with the agreed-upon requirements by reference, as it now accepts judgments by the International Monetary Fund about whether a country's balance of payments problems justify a temporary exemption from GATT obligations.<sup>304</sup>

Ultimately, international environmental rules, defining the baseline of behavior required for participation in the global economic system and spelling out the price for admission to the open world marketplace, are an essential element of the management of international economic relations. Without some harmonization of standards, individual countries will have an incentive to disregard both spillovers of harm caused by their policies and impacts they may have on the resources of the global commons.

## VI. CONCLUSION

If multilateral agreements to further liberalize trade and integrate markets are to succeed, they must also integrate environmental policies and other aspects of regulation. The parallel pursuit of trade liberalization and environmental protection in regional agreements offers useful experience in this regard.

Two core concerns must be addressed. First, the relationship between ensuring market access and pursuing environmental protection must be clarified. While free traders worry that environ-

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303. The Montreal Protocol's different CFC phaseout timetables provide an example of how a multi-tier regime might work. *See supra* text accompanying note 97.

304. *See GATT, supra* note 3, at art. XV.

mental product standards may act as barriers to trade, environmentalists fear that trade disciplines which compel market access may void environmental standards or orchestrate their downward harmonization. Second, competitiveness tensions between jurisdictions with dissimilar environmental standards must be addressed to the extent that they exceed national comparative advantage. Specifically, mechanisms must be developed to ensure that unjustified differences in the stringency of environmental process standards do not distort competition, trigger industrial relocation, or start a race toward the bottom that leaves some or all jurisdictions with sub-optimal environmental policies.

A variety of responses—ranging from a “do nothing” *laissez-faire* approach to the adoption of uniform environmental standards worldwide—could be advanced in response to these tensions. This spectrum of policy tools includes many refined harmonization strategies. Thus, trade agreements need not mandate inefficient uniform standards. NAFTA and the EC have adopted somewhat divergent approaches to the reconciliation of desires for market access with those for environmental protection. The EC addresses market access concerns through a mix of directives harmonizing standards and oversight of national product requirements that affect trade, as well as through judicial bounding. NAFTA also relies on judicial bounding but makes little use of harmonization. The opposition of Canadian and U.S. environmentalists to common North American standards and the weak environmental institutional structure created under NAFTA has translated into a limited U.S.-Mexico-Canada focus on harmonization. This represents a missed opportunity for environmental gains as well as freer trade.

NAFTA and the EC also respond to competitiveness concerns with different strategies. In North America, environmental and industry groups voiced fears that cost differentials created by relaxed environmental process standards in Mexico would induce industrial relocation and start a race toward the bottom. Although these competitiveness concerns might have led to harmonized process standards, they did not. Instead Mexico, Canada, and the United States chose to focus on the implementation and enforcement of national environmental rules. In contrast, European observers have not expressed particular fears about industrial relocation or environmental-policy-distorting races toward the bottom. In the EC, competitiveness concerns center on the risk that industries in high-standard

Member States, suffering from increased environmental compliance costs, will be forced to operate at a competitive disadvantage compared with industries in Member States with lax environmental standards and lower environmental compliance costs. The EC addresses these potential distortions through harmonized process standards. The EC's success, however, has been diminished by the lack of proper implementation and enforcement procedures in some Member States. Thus, the EC could improve its response to competitiveness concerns by drawing on the North American model of collaboration on the enforcement and implementation of environmental laws. In return, the EC provides NAFTA with a potential model for the harmonization of process standards.

Both the EC and NAFTA stand as models for the international trading system of how increased integration of environmental policies can and should accompany the integration of markets. Although the WTO structure contains mechanisms to address both market access and competitiveness concerns, its rules to date have concentrated primarily on preventing environmental regulations from becoming non-tariff barriers to trade. The WTO has done relatively little to confront concerns about the appropriateness of its judicial bounding process, or the risks of competitiveness distortions, industrial relocation, and races toward the bottom potentially caused by unjustified differences in environmental standards. Because NAFTA and the EC have begun to grapple with these tensions, they represent more advanced forms of economic integration. The WTO can and should learn from the successes and failures of these regional trade structures.

In the end, trade liberalization and environmental protection are ineluctably connected. Trade agreements that address this linkage expressly will ultimately be more durable because they incorporate environmental thinking and are positioned to maximize the net social welfare gains that flow from freer trade.