FEDERALISM AND ENVIRONMENTAL REGULATION: LESSONS FOR THE EUROPEAN UNION AND THE INTERNATIONAL COMMUNITY

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Professor Daniel Farber’s article usefully shows us certain similarities in the structures of what he calls “free trade” and “environmental” regimes, as well as similarities in the rules governing these regimes in the United States, the European Union, and the international community.1 By focusing only on the various similarities, however, Professor Farber provides an incomplete account of the relevant issues.

This Commentary has four parts. First, it shows why Professor Farber’s reliance on an analogy between the two types of regimes is misplaced. Second, it shows why, as a result of his reliance on this analogy, Professor Farber underestimates the benefits of multilateral regulation in the case of “free trade” regimes and overestimates the corresponding benefits in the case of “environmental” regimes. Third, it explains why the issues concerning federal environmental regulation are framed differently in the European Union than in the United States; in so doing, it underscores the importance for the European Union of the debates concerning the proper allocation of authority over environmental regulation currently being waged primarily on this side of the Atlantic. Fourth, it explains why the assessment of centralized intervention is different in the international community than in federal systems, and provides a framework for analyzing the desirability of environmentally-based trade restrictions in the international community.

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I.

The central conclusion of Professor Farber's article is that "free trade and environmental regimes have much in common." He adds:

Notably, the rationale for both the trade and environmental regimes is the fear that a prisoner's dilemma may lead to a race to the bottom, whether through trade restrictions or environmental laxity. It turns out that both kinds of races can occur only under particular-and similar-circumstances. Thus, the appropriate conditions for multilateral trade regimes often coincide with those for multilateral environmental regimes.

Professor Farber’s reliance on this analogy, however, is misplaced. Before exploring why these two types of measures are analytically distinct, it is useful to define with some precision what Professor Farber means by “free trade” and “environmental” regimes. The structures of these two regimes can best be understood by reference to the two-by-two matrix shown in Table I.

The rows in the table indicate that a jurisdiction’s regulatory standard can be either a product standard, which regulates the environmental consequences of the product itself, or a process standard, which regulates the environmental consequences of the industrial process through which the product is produced. The table’s columns indicate whether, in addition to being enforced against domestic producers, the standards are also enforced by means of trade restrictions. In the case of product standards, a trade restriction bars the entry into the jurisdiction of products that violate the jurisdiction’s product standard. In the case of process standards, a trade restriction bars the entry into the jurisdiction of products manufactured through an industrial process that violates the jurisdiction’s process standards.


[2] Id. at 1284-85 (citations omitted).

[3] A jurisdiction might attempt to enforce its standards only by means of trade restrictions, exempting domestic producers. Such discriminatory measures would run afoul of any plausible system of trade regulation. Thus, Table I does not contemplate this possibility. A complete description of the problem, however, would require a two-by-two-by-two matrix.
The paradigmatic case of what Professor Farber calls a "free trade" regime is the regulation, by a federal or international authority, of overly stringent product standards coupled with trade restrictions. Such measures are sometimes motivated by a desire to reduce the negative effects of a product that are external to its purchaser. For example, a product's price might not fully reflect the cost of disposing of its packaging. Similarly, the consumption of the product (as is the case, for example, with tobacco products) might have negative effects on the health of third parties, or on the public health system. Alternatively, the restriction might be adopted at the behest of in-state producers of the product, who might be able to meet the more stringent product standard more cheaply than their out-of-state counterparts. The reason for federal regulation or international regulation is the concern that the jurisdiction externalizes, to individuals and firms outside of the jurisdiction, too many of the costs of meeting its product standard.5

In contrast, the paradigmatic case of what Professor Farber calls an "environmental" regime is the regulation, by a federal or international authority, of overly lax process standards not enforced by means of trade restrictions. The concern here is that the jurisdiction imposes unacceptable environmental consequences upon its residents.6

These two types of measures are not exclusive. Table I reveals the existence of two other categories. Product standards need not be coupled with trade restrictions. Such measures are not commonplace, however, because domestic

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5 See Stewart, supra note 1, at 1334-35.
6 Professor Farber's terminology is somewhat confusing. Both regimes have environmental consequences. In one case, the purpose of the higher level intervention is to preempt overly lax environmental regulation whereas in the other it is to preempt overly stringent environmental regulation. Similarly, both regimes have trade consequences. Constraints on coupling overly stringent product standards with trade restrictions expand the market for products manufactured by states with less stringent standards. Constraints on overly lax process standards expand the market for products manufactured in states with more stringent process standards by reducing a differential in production costs.
producers would be put at a disadvantage compared to their out-of-state counterparts, and the benefits of the standard would be defeated if the consumption of imports became prevalent.

Similarly, process standards can be coupled with trade restrictions. Such measures are not part of the legal regimes of the United States and the European Union, but they are becoming a prominent feature of international trade disputes.7

“Free trade” and “environmental” regimes are different in three important respects: (1) the determination of who wins and who loses under the regulatory regime, both in-state and out-of-state; (2) the instances in which there is a divergence between the in-state calculus and the global social calculus concerning the desirability of the regulatory measures; and (3) the impact of public choice considerations. These differences severely undercut the force of Professor Farber’s analogy.

First, the two types of measures produce different winners and losers. Within the regulating jurisdiction, a product standard coupled with trade restrictions imposes costs on consumers, who must pay higher prices for the product. In turn, it confers benefits on the victims of the externality, who suffer fewer adverse consequences. It also confers benefits on producers of the product within the jurisdiction if they have a comparative advantage in meeting the jurisdiction’s product standard, or on in-state producers of substitute products. In deciding whether to impose the regulatory measure, a welfare-maximizing jurisdiction would weigh these benefits to environmental victims and producers against the costs to consumers.

The jurisdiction would not concern itself, however, with the effects of the measure outside its borders, which are likely to be negative. Out-of-state producers will have a smaller market in which to sell their products, leading to a loss of jobs, wages, and tax revenues in that jurisdiction. In addition, out-of-state consumers will face higher prices if there are economies of scale in production.

In contrast, the winners and losers, both in-state and out-of-state, are different in the case of process standards not coupled with trade restrictions. As with product standards, in-state victims of environmental externalities benefit from the regulatory measure. In-state producers, however, bear the increased cost of operation. Thus, there is a divergence between the interests of in-state producers and environmental beneficiaries, which were aligned for product standards coupled with trade restrictions. Moreover, as a result of the higher operating costs, industrial plants may move to a state with less stringent process standards, leading to fewer jobs, lower wages, and lower tax revenues in the state adopting the process standard. In assessing the desirability of a

7 See infra text accompanying note 35 (discussing the Tuna Dolphin Case).

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particular process standard that is not coupled with trade restrictions, a state must strike a different balance, weighing the standard's health benefits against its labor and fiscal costs.

Second, in the case of product standards coupled with trade restrictions, there is the possibility of divergence between the in-state calculus of the importing jurisdiction and the global social calculus: The regulatory measure that maximizes the jurisdiction's welfare might not maximize the overall welfare. Indeed, the jurisdiction imposing the restriction will not concern itself with the negative impact of the restriction on out-of-state producers and consumers. Thus, left to its own devices, a welfare-maximizing jurisdiction might impose restrictions that reduce the global social welfare.

In contrast, in the case of process standards not coupled with trade restrictions, there is no divergence between the in-state calculus and the global social calculus. Even though a decision to weaken or strengthen a process standard may have consequences outside the jurisdiction, in the form of industrial inflow or outflow, respectively, these consequences do not give rise to the type of externality that reduces the global social welfare. The process standard can be thought of as a component of the price charged by the jurisdiction for the right to locate within its borders. The external effect is thus the result of the normal competitive mechanism for the reallocation of resources in response to changes in prices. Thus, the weakening or strengthening of a state environmental standard gives rise to a pecuniary externality, with no adverse social welfare consequences, rather than a true or technological externality.¹

Third, public choice considerations suggest that the two types of measures would be the product of political pressures from distinct groups. Disproportionate political influence on the part of environmental beneficiaries would lead to overly stringent product and process standards. In contrast, disproportionate political influence on the part of manufacturers might lead to overly stringent product standards but overly lax process standards.

Professor Farber is undoubtedly right that under certain conditions jurisdictions will reach the socially optimal result, absent higher-level intervention, with respect to both product and process standards. He also is right that there are some similarities in the instances in which higher-level intervention is appropriate. Nonetheless, the paradigmatic models of the two situations are analytically distinct. Inattention to those differences is likely to impede the development of desirable public policy concerning when a jurisdiction's decisionmaking processes ought to be displaced.

¹ Nonetheless, if the jurisdiction cannot pursue a welfare-maximizing strategy, perhaps because of the presence of distortionary taxes, its choice of a process standard might have distortionary effects elsewhere. For a discussion of the difference between technological externalities and pecuniary externalities, see William J. Baumol & Wallace E. Oates, The Theory of Environmental Policy 29-31 (2d ed. 1988).
II.

Perhaps in part as a result of his reliance on the analogy between “free trade” and “environmental” regimes, Professor Farber is too trustful, when jurisdictions adopt product standards coupled with trade restrictions, that global social welfare will be maximized absent intervention from a federal or international authority. In this regard, Professor Farber is mistaken to rely on the standard case for free trade, which maintains that “‘a nation would profit most by pursuing a free trade policy . . . whether its trading partners were free-traders or protectionists.’”

Indeed, the textbook case for free trade does not contemplate the situation in which a product might have negative effects that are external to its purchaser. When all the positive and negative consequences of a product accrue to its purchaser, raising the product’s price through a tariff or entry barrier hurts the consumers within the jurisdiction more than it helps any other in-state group. There is no divergence in that case between the jurisdiction’s calculus and the global social calculus.

But, as indicated in Part I, product standards sometimes seek to reduce the adverse consequences of external effects, such as disposal costs or health risks of third parties, that are not internalized in the product’s price. In such circumstances a trade restriction, as a tool used to enforce the product standard, can increase the welfare within the jurisdiction but reduce the global social welfare.

In contrast to his overly optimistic outlook for the results of interjurisdictional competition over product standards coupled with trade restrictions, Professor Farber is too pessimistic in his assessment of the effects of competition over process standards not coupled with trade restrictions. Despite his generous discussion of my prior work, Professor Farber notes for “environmental” regimes that we should be “wary of criticizing” the “general tendency . . . to strengthen multilateral regulation.” This conclusion is inappropriately uncritical of the race-to-the-bottom rationale for the types of federal environ-

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9 Farber, supra note 2, at 1287 (quoting Jagdish Bhagwati, Protectionism 24 (1988)).


11 Farber, supra note 2, at 1306.
mental regulation commonly used in the United States and the European Union. 12

Relying on the model developed by Wallace Oates and Robert Schwab, 13 Professor Farber states that "economic theory suggests the race to the bottom might occur, justifying some multijurisdictional legal intervention." 14 It is indeed possible, as Professor Farber maintains, that in particular instances game-theoretic interactions among the states would lead to underregulation absent federal intervention. 15 In such cases federal minimum standards, pre-empting less stringent state standards, would be desirable. But as I discuss at more length in a recent essay, 16 it is equally possible that in other instances the reverse would be true: that the game-theoretic interactions between the states would lead to overregulation absent federal intervention. 17 In such cases, federal regulation would be desirable as well, but in such cases federal maximum standards would be called for. Accordingly, there is no compelling race-to-the-bottom justification for across-the-board federal minimum standards, which are the cornerstone of federal environmental law in both the United States and the European Union. 18

For example, in the Oates and Schwab model, environmental standards will be suboptimally lax if a jurisdiction imposes a positive net tax on capital (that is, a tax that is higher than the cost of the additional public services required by the capital). In contrast, environmental standards will be suboptimally stringent if a jurisdiction chooses a tax on capital that is less than the cost of the public services that the capital requires. 19

Similarly, game-theoretic models have ambiguous conclusions if one relaxes the assumptions of constant returns to scale and perfect competition, which are a cornerstone of the Oates and Schwab model. If an industry exhibits increasing returns to scale, a condition generally associated with imperfect competition, depending on the levels of firm-specific costs, plant-specific costs,

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12 Professor Farber recognizes in passing that the federal standards have not been an effective means of dealing with the problem of interstate externalities—the other major justification for vesting authority over environmental regulation in the federal government. See Farber, supra note 2, at 1301 & n.84. I address this issue at length in Revesz, Interstate Externalities, supra note 10, at 2346-74.


14 Farber, supra note 2, at 1289.

15 Revesz, Federalism and Environmental Regulation, supra note 10, at 104.

16 Id. at 103-06.

17 Revesz, Federalism and Environmental Regulation, supra note 10.

18 See Revesz, Interstate Externalities, supra note 10, at 2342-44; Revesz, Race to the Bottom, supra note 10, at 1210-11, 1221-24.

19 See Revesz, Race to the Bottom, supra note 10, at 1243-44.
and transportation costs, interstate competition can produce either suboptimally lax or suboptimally stringent levels of pollution.20

Moreover, as Professor Farber recognizes in passing,21 even if states systematically enacted suboptimally lax environmental standards, federal environmental regulation would not necessarily improve the situation. Race-to-the-bottom arguments appear to assume, at least implicitly, that jurisdictions compete over only one variable, in this case, environmental quality. But under any plausible scenario, jurisdictions compete over a variety of regulatory and fiscal variables. If environmental regulation is federalized, the competition would shift to another arena and the reduction in social welfare implicit in race-to-the-bottom arguments would not be eliminated. The only solution would be total centralization of regulatory and fiscal functions, a policy that would have little, if any, support.22

III.

The legal issues concerning centralized environmental regulation are framed somewhat differently in the European Union than in the United States. Two differences are particularly salient: (1) the justifications for centralized intervention and (2) the legal status of the debates over the proper allocation of authority. This Part focuses solely on these two legal differences and does not attempt to address political, institutional, or historical differences.

One justification offered for centralized intervention in the European Union, as in the United States, is the presence of interjurisdictional externalities.23 The other prominent justification offered in the European context for centralized regulation is that harmonization of environmental laws promotes


21 Farber supra note 2, at 1305-06.

22 See Revesz, Federalism and Environmental Regulation, supra note 10, at 103-106; Revesz, Race to the Bottom, supra note 10, at 1244-47.

the establishment of a common market; this justification has not been nearly as prominent in federalism debates in the United States. The harmonization rationale has some force in the case of product standards. Indeed, a product cannot trade freely throughout a common market if states within the market can exclude it on environmental or health and safety grounds. Harmonization arguments, however, have also been invoked to justify the vesting of centralized responsibility over process standards, such as environmental ambient and emissions standards. There are several serious problems with extending the argument in this manner.25

First, as long as product standards are harmonized, there can be a well-functioning common market regardless of the stringency of the process standards governing the products' manufacture. Thus, more accurately, the argument must call for the harmonization of the products' production costs, so as to deny a comparative advantage to states with lax environmental standards.

The second problem, however, is that the costs of complying with environmental regulation, or, for that matter, the costs of complying with any regulation, are only one component of the total costs of production. Other components include a state's investments in infrastructure, health care, and education, as well as its wages, labor productivity, and access to raw materials. These factors, which can have a significant effect on production costs, are unlikely to be (or are incapable of being) the subject of the European Union's harmonization efforts. Thus, rather than eliminating cost differences, the harmonization of environmental standards has the effect of conferring a competitive advantage on states with lower non-harmonizable components of costs.

Third, the harmonization argument cannot be used, as it has in the European Union, to justify both uniform ambient standards and uniform emissions


25 Despite its weak intellectual pedigree, it is not surprising that the harmonization argument has been influential. The European Union began as the European Economic Community under the Treaty of Rome in 1957. Treaty Establishing the European Economic Community, March 25, 1957, 298 U.N.T.S. 11 [hereinafter EEC Treaty]. This treaty did not contain any specific rules dealing with environmental protection. Environmental regulation between 1957 and 1986 was based principally on Article 100, which authorizes the issuance of directives "for the approximation of such legislative and administrative provisions of the Member States as have direct incidence on the establishment or functioning of the Common Market." Id. at 54. Thus, centralized involvement had to be justified by reference to the benefits of harmonization. The Treaty of Rome was amended by the Single European Act in 1986, 30 O.J. Eur. Comm. (No. L 169) 1 (1987), and by the Treaty on European Union (the Maastricht Treaty) in 1992. Treaty Establishing the European Community, Feb. 7, 1992, O.J. (C 224) 1 (1992), [1992] C.M.L.R. 573 (1992) [hereinafter EC Treaty]. Now, Articles 100a and 130r through 130t provide the European Union with explicit authority to promulgate environmental standards. Id. art. 100a(3); 130r-130t.
standards. A centralized regulatory regime consisting only of uniform ambient standards, which permits the states to allocate the pollution control burden among existing and new sources in any way they see fit, would confer a competitive advantage on the states with smaller industrial bases. Indeed, states with lower pollution output could offer their sources less stringent emissions standards without violating the ambient standards. The addition of centralized emissions standards moderates this comparative advantage, but it does not wholly eliminate it. Highly industrialized states, where the centralized ambient standards constrain further growth, would be unable to attract new sources without imposing additional costs on existing sources.

In light of these weaknesses, it is not surprising that recent European scholarship seeks to recharacterize the quest for harmonization in race-to-the-bottom terms. Commentators have argued, as have race-to-the-bottom advocates in the United States,\(^\text{26}\) that the goal of centralized intervention is to protect states from the pressure to impose suboptimally lax environmental standards as a means of attracting jobs and tax revenues.\(^\text{27}\) But, obviously, the weaknesses of the race-to-the-bottom rationale for centralized environmental regulation are not confined to this side of the Atlantic.\(^\text{28}\)

In addition, the legal status of the debates concerning the strength of the rationales for centralized environmental regulation is different in the European Union and the United States. In the United States, the choice between federal and state regulation (except when state regulation is coupled with trade restrictions) is, for the most part, a matter of policy. The constitutional constraints are extremely weak, even after the Supreme Court’s decisions in New York v. United States,\(^\text{29}\) United States v. Lopez,\(^\text{30}\) and Printz v. United States.\(^\text{31}\)

In contrast, in the European Union the subsidiarity principle adopted in the Maastricht Treaty in 1992 permits action at the federal level “only and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or

\(^{26}\) See Revesz, Race to the Bottom, supra note 10 at 1210-11, n.1.

\(^{27}\) See Ludwig Krämer, E.C. Treaty and Environmental Law 62 (2d ed. 1995); Lenaerts, supra note 23, at 881; Stewart, supra note 23, at 45; van den Bergh, Faure & Lefevere, supra note 23, at 132-33.

\(^{28}\) See Revesz, Federalism and Environmental Regulation, supra note 10; Revesz, Race to the Bottom, supra note 10.

\(^{29}\) 505 U.S. 144 (1992) (holding that Congress may not require states to enact or administer a federal program).

\(^{30}\) 514 U.S. 549 (1995) (holding, for the first time in over fifty years, that Congress exceeded its authority under the Commerce Clause).

\(^{31}\) 117 S. Ct. 2365 (1997) (holding that Congress may not compel state officers to execute federal laws).
effects of the proposed action, be better achieved by the Community.32 Thus, in the European Union, the subsidiarity principle constitutionalizes the inquiry concerning the level of government at which responsibility for environmental regulation should be allocated. Although commentators are divided about the likely role of the European Court of Justice in enforcing the subsidiarity principle, some believe that the principle is fully justiciable.33 The unsettled state of the doctrine lends particular significance to the strength of the various rationales for federal intervention. As a result, the debates concerning the proper allocation of authority over environmental regulation, which are currently being waged primarily on this side of the Atlantic, may well acquire an even greater salience in the European Union.

IV.

The issues concerning the desirability of centralized intervention are different, in two important respects, in the international community than in federal systems. First, in the international community, there is only weak capacity for centralized environmental standard-setting and virtually no capacity for centralized environmental enforcement. Second, the differences in wealth and economic development are far more salient in the international community than in federal systems.

As a result of the lack of a viable system of environmental standard-setting and enforcement, there are stronger arguments in the international community than in federal systems for allowing countries to impose environmentally-based trade restrictions. Even where centralized regulation might be preferable, for example as a result of interjurisdictional externalities, state regulation coupled with trade restrictions might be the best available outcome if centralized regulation is not feasible, or if it is not enforceable.

The different treatment of process standards in federal systems and in the international community is, therefore, not surprising. In both the United

32 EC Treaty, supra note 25, art. 3b. A similar principle, dealing exclusively with environmental regulation, was added in 1986 under the Single European Act. See id. art. 130r(4) (as in effect in 1986).

33 Compare Lenaerts, supra note 23, at 894 (indicating that the court may require and independently assess reasons for federal action), and Josephine Steiner, Subsidiarity Under the Maastricht Treaty, in Legal Issues of the Maastricht Treaty 49, 62-63 (David O'Keeffe & Patrick M. Twomey eds., 1994) (arguing that the court should play an active role in interpreting the concept of subsidiarity), with A.G. Toth, A Legal Analysis of Subsidiarity, in Legal Issues of the Maastricht Treaty, supra, at 37, 48 (arguing that the subsidiarity principle raises questions more appropriate for political, rather than judicial, institutions).
States and the European Union, state-imposed trade restrictions have been coupled with product standards but not with process standards. Instead, environmental regulation with respect to processes has been the domain of the federal government. There is little justification for allowing a state to impose a process standard designed to change the environmental behavior of another state when a centralized authority can do so directly.

In contrast, process standards have been coupled with trade restrictions in the international community; the United States’ restrictions on the import of certain tuna products at issue in the Tuna Dolphin Case is probably a well-known example. Even though the Secretariat of the General Agreement on Tariffs and Trade (“GATT”), the WTO’s predecessor, took a skeptical view with respect to the permissibility of such measures, the issue continues to draw the body’s attention and may well be decided differently in future negotiating rounds.

The second important difference between the systems of the United States and the European Union and the international community arises as a result of the extreme differences in wealth and economic development in the international community. This factor, coupled with the lack of a viable, widespread system for economic redistribution in the international community, implies that the distributional consequences of each policy ought to play a far more salient role in evaluating their relative desirability.

For example, in a federal system of relatively homogenous states, it might be desirable to adopt policies that lead to the maximization of social welfare without undue concern about how the costs and benefits of such policies are distributed across different geographic subdivisions. Indeed, federal governments regulate in many areas, and the distributional consequences may even out across programs. Thus, it may not be sensible to compromise the social welfare properties of each program in order to achieve a better program-specific distribution. Moreover, even if such evening out of the aggregate distributional consequences does not occur, it is likely to be more desirable to redistribute through a system of taxes and subsidies than by compromising the efficiency of the various regulatory programs. The situation is different in the international community, with its larger differences in wealth and economic development, and lesser opportunities for redistribution.

34 See Stewart, supra note 1, at 1342.
36 See GATT Secretariat, Trade and Environment, GATT/1529 at 10 (Feb. 3, 1992), in World Trade Materials, Jan. 1992, at 37, 50 (1992) (“In principle, it is not possible under GATT’s rules to make access to one’s own market dependent on the domestic environmental policies or practices of the exporting country.”).
A full analysis of when process standards coupled with trade restrictions ought to be permissible in the international community obviously cannot be undertaken here. The following taxonomy, however, seeks to provide a useful way to begin to analyze the relevant issues.

The first element of this taxonomy is defined by reference to the geographic scope of the physical effects of the pollution that gives rise to the trade restriction. Six situations are relevant:

a. purely domestic effects in the exporting country;
b. physical spillovers into the importing country;
c. physical spillovers into third countries;
d. impairment of existence values in the importing country;
e. impairment of existence values in third countries; and
f. effects on the global commons.

In the first situation, if the effects of the pollution are confined to the exporting country, trade restrictions are hardest to justify. Producers in the importing country may be upset that one factor of production is cheap in the exporting country, but restrictions imposed for this reason are unlikely to be welfare enhancing. Moreover, given that the costs of production have many non-harmonizable components, such as wages, labor productivity, infrastructure, and educational systems, it is not clear why a single factor should be singled out for special treatment.\(^8\)

One might sanction as a violation of a basic human right a sufficiently egregious disregard for human health or well-being, for example, the use of child labor. Many environmental disparities between exporting and importing countries, however, do not give rise to problems of this magnitude.

In the second situation, the case of physical spillovers, trade restrictions might be the only way for the importing country to protect itself. In the United States, under the dormant Commerce Clause the permissibility of such restrictions is sometimes determined by comparing the welfare gains in the importing state with the corresponding welfare losses in the exporting state.\(^9\)

In the international community, however, the distributional concerns discussed above complicate such an inquiry.

In the third situation, where the physical spillovers affect third countries, the importing country's trade restriction might increase global social welfare. Because the importing country is not affected by the pollution, however, one

\(^8\) But see infra notes 42-44 and accompanying text (discussing legislative proposal and views of Vice President Al Gore).

\(^9\) See Revesz, Interstate Externalities, supra note 10, at 2405-08.
might be concerned that the asserted environmental reason for the restriction is a mere subterfuge, masking a protectionist motivation.

With respect to the fourth and fifth situations, there is no analytical reason for treating existence values, also known sometimes as non-use values, differently from physical spillovers. Citizens of the importing country might suffer a real loss in utility from learning about the destruction of a valuable natural resource abroad, even if they never planned to visit it. The claims of citizens of wealthy countries for trade measures to protect their existence values might not seem particularly sympathetic if the costs fall on citizens of far poorer countries, whose very livelihood might be at stake. Moreover, the controversy surrounding the use of the contingent valuation methodology, which is used to value existence values, makes any attempt to weigh the interests of the various jurisdictions problematic. As a result, trade measures motivated by the impairment of existence values are likely to be viewed as less legitimate than trade measures motivated by physical spillovers.

Finally, with respect to the global commons, in some cases trade measures will be expressly permitted by international treaties. Such treaties, however, often take a long time to negotiate (and an even longer time to result in the imposition of specific obligations). In the interim, unilateral trade measures may well be the best available way to protect the global commons.

The second element of the classification system is defined by reference to how the environmental standards in the exporting and importing countries compare to those that would maximize social welfare in the respective jurisdictions. The relevant categories are set forth in Table II.

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To illustrate this table by means of an example, consider the following situation, which is consistent with the box labelled "g." A's actual standard is 10 parts per million ("ppm") of a pollutant, whereas its optimal standard is 12 ppm; thus, A's actual standard is more stringent than its optimal standard. In turn, B's actual standard is 8 ppm (more stringent than A's actual standard) but its optimal standard is 6 ppm; thus, B's standard is less stringent than its optimal standard.

In the event that B's environmental standards are more stringent than A's, should B's use of trade measures be appropriate merely for that reason? Such an approach was embodied in the proposed International Pollution Deterrence Act, which would have authorized the imposition of countervailing duties equal to the amount that the foreign firm would have to expend in order to comply with the U.S. standards. Similarly, Vice President Gore wrote, while he was still a senator: "Just as government subsidies of a particular industry are sometimes considered unfair under the trade laws, weak and ineffectual enforcement of pollution control measures should also be included in the definition of unfair trading practices."

The problem with this approach is that it would authorize the erection of trade barriers even in circumstances when the disparity in the environmental standards is justified by differences in the preferences for environmental protection, differences in the costs of pollution control, and differences in the extent to which pollution produces adverse health and environmental effects in the two countries.

Alternatively, should trade measures be appropriate only in situations a, b, and c, in which A's standards are laxer than optimal? Such an approach would recognize the reasons why it is desirable for different countries to have different levels of environmental protection.

Or, should B be barred from using trade measures in situations a, d, and g because its own standards are laxer than optimal, even though A's are laxer still? Such an approach would create incentives for B to adopt socially desirable standards.

In situations c, f, and i, where B's standards are more stringent than optimal, should B be permitted to use trade measures only if its optimal standards are more stringent than A's standards? An affirmative answer might be predicated on the undesirability of allowing B to penalize other countries as a result of its own public choice problems that lead it to adopt suboptimally stringent standards.

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43 Id. at 3-4.
Professor Farber has contributed to the debate by explaining the nature of certain similarities raised by the environmental regulation in federal systems and the international community. Further advances, however, are likely to come from paying close attention to the respective differences: differences between federal systems and the international community, differences between the United States and the European Union, and differences between the reasons for centralized intervention to invalidate product standards coupled with trade restrictions and to invalidate process standards not coupled with trade restrictions.