MANUFACTURERS ALLIANCE Policy Review

1525 Wilson Boulevard, Suite 900, Arlington, VA 22209 • 703/841-9000 • FAX 703/841-9514

PR-138 April 12, 1996

Economic Growth and Environmental Quality: Is There a Trade-Off?

Introduction

Over the last 15 years, Americans have begun to reevaluate traditional approaches to solving social problems. This reevaluation has led to an infusion of new ideas concerning environmental regulation. Many people now agree that environmental laws and regulations tend to be too complex, too rigid, and that their administration is too bureaucratic.

There is an active debate about what should replace current programs. President Clinton has made "protecting the environment" a major component of his reelection campaign. Despite this pro environmental stance, the Administration and most Democrats recognize that environmental laws and regulations have some weaknesses. Their policy response is, however, to call for marginal changes in current laws, working around the edges to address obvious problems. The new Republican congressional majority has given those who believe that environmental requirements impose a large, deadweight burden on the potential growth of private enterprise the opportunity to propose fundamental reforms, including rewriting existing statutes and imposing restrictions on the powers of the Environmental Protection Agency. To date, neither side has succeeded in convincing the public that its approach would both reduce unnecessary regulatory burdens and protect the environment. Both parties assume a trade-off between economic growth and environmental protection: increasing environmental standards will increase the operating cost of the private sector, lowering both profits and national income.

Two recent papers by Michael E. Porter and Claas van der Linde challenge this assumption by arguing that there need be no tradeoff between environmental improvements and economic growth.[1] Their articles carry two messages. First, by making regulations more flexible and market-oriented, government can lower the cost of achieving environmental goals. On this point they will find little argument from industry. Second, and more surprising, they strongly imply that efficient regulations can actually ***increase*** profitability and competitiveness, compared to the case of no regulation.

This latter argument has important implications. The traditional justification for environmental laws is that the social costs of pollution often exceed the social benefits of the activities that generate it. Thus, government intervention is needed to enforce environmental standards and increase social welfare by limiting pollution. The traditional justification does not contest the fact that environmental laws impose net costs on the firms subject to them. It justifies these costs by pointing to the larger social benefits of a cleaner environment.

[1] "Green and Competitive: Ending the Stalemate," *Harvard Business Review*, September-October 1995, pp. 120-134; "Toward a New Conception of the Environment-Competitiveness Relationship," *Journal of Economic Perspectives*, Fall 1995, pp. 97-118. For rebuttals of this argument, see Karen Palmer, Wallace E. Oates, and Paul R. Portney, "Tightening Environmental Standards: The Benefit-Cost or the No-Cost Paradigm?" *Journal of Economic Perspectives*, Fall 1995, pp. 119-132, and Noah Walley and Bradley Whitehead, "It's Not Easy Being Green," *Harvard Business Review*, May-June 1994, pp. 46-52.

Initial distribution of PR-138 is being made to general managers, environmental officials, and manufacturing, engineering and technology, quality, and productivity executives of member companies in the Manufacturers Alliance.

For this reason it is important to choose environmental standards that increase social welfare. This requires measurement of both the costs and benefits of proposed laws, recognizing that these measurements will always contain uncertainty. This in turn requires an objective assessment of the environmental risks involved. It is then important to enforce these standards in ways that minimize the cost of meeting them.

Global competition makes the cost of environmental laws even more relevant. If the environmental standards domestic firms must comply with are more costly than those their competitors must comply with, domestic firms will be at a competitive disadvantage, just as if they had to pay higher costs for energy or labor. In highly competitive markets, domestic firms must make up these higher costs somewhere else. If they pass the costs on to customers they are likely to lose market share. Alternatively, they may try to cut the cost of other inputs, including labor, by paying lower wages or hiring fewer workers. The only other alternative is to accept a lower profit margin. This last alternative will detract investors and reduce the firm's access to capital. The social cost of environmental regulations is likely to be greater whenever domestic firms are exposed to international competition.

But if environmental laws do not hurt, and may even help competitiveness, then higher environmental standards can be enforced without worrying about the possible loss of income and jobs. Indeed, regulators may wish to impose new standards even when the social costs exceed the benefits because of the efficiency gains to business.

The articles are important because this view has already gained the attention of the current Administration. During their successful campaign, the future President and Vice President promised to "shatter the false choice between environmental protection and economic growth by creating a market-based environmental protection strategy that rewards conservation and 'green' business practices while penalizing polluters."[2] More recently, the Department of Labor has sponsored a study that concludes that "environmental and energy technologies can result in both cleaner and more efficient production" and that "environmental standards could prove to be a trade advantage in the future."[3] And, in a recent article, two of the top policymakers in the Department of Energy cite approvingly Porter and van der Linde's argument that pollution is a sign that resources have been used inefficiently.[4]

This report examines the Porter and van der Linde argument. Porter and van der Linde make sensible recommendations for both improving the economic efficiency of environmental regulations and increasing industry's attention to environmental compliance as an area for cost reduction. Their recommendations would not eliminate the trade-off between environmental standards and economic growth, however.

Environmental laws will still impose large costs on the business community and ultimately on society. Often the benefits of cleaner air, water, or land will justify this cost. Often, however, they will not, and only a careful assessment of the risks involved and a measurement of the costs and benefits can guide policymakers in setting the proper standards.

The Porter and van der Linde Thesis

Mr. Porter is well-recognized for his work on industrial competitiveness. In a recent book, he argues that the long-term profitability of a given company is closely linked to the general conditions surrounding it.[5] These conditions include factor markets, market demand, related and supporting industries, and firm strategy, structure, and rivalry. Specifically, industries do best when placed in a competitive environment in which they have easy access to inputs, infrastructure, and information but are forced to innovate continuously in order to stay competitive. It is this type of environment that government policy should try to foster. The articles discussed in this report apply this theory to environmental policy.

It is somewhat difficult to discover just what Porter and van der Linde are arguing. They explicitly state that:

> Our focus here is not on the social benefits of environmental regulation, but on the private costs. Our argument is that whatever the level of social benefits, these costs are far higher than they need to be. The policy focus should, then, be on relaxing the tradeoff between competitiveness and the

[2] Bill Clinton and Al Gore, *Putting People First: How We Can All Change America*, Times Books, 1994, p. 94.

[3] Skip Laitner, *Environment and Jobs: The Employment Impact of Federal Environmental Investments*, National Commission for Employment Policy, 1995, p. ii.

[4] Joseph J. Romm and Charles B. Curtis, "Mideast Oil Forever?" *The Atlantic Monthly*, April 1996, p. 67.

[5] Michael E. Porter, *The Competitive Advantage of Nations*, New York: Free Press, 1990. The main arguments of this book are summarized in Michael E. Porter, "The Competitive Advantage of Nations," *Harvard Business Review*, March-April, 1990, pp. 73-93.

> environment rather than accepting it as a given.[6]

In arguing for environmental regulation, they do not intend to rely on the traditional justification for environmental statutes. In this statement the authors focus instead on minimizing the cost of enforcing a given standard. Their statement is not controversial. All economists would agree that, once an environmental standard is chosen, it should generally be implemented in the most efficient, least costly way.

This does not, however, remove the need for a careful cost-benefit analysis to find out whether the standard itself will impose net costs or benefits on society.[7] Nor does the minimization of costs imply their elimination. Porter and van der Linde state that under certain circumstances this may, however, be the case when they promise to argue an "intriguing possibility" that:

> . . . properly designed environmental standards can trigger innovation that may partially or more than fully offset the costs of complying with them. Such "innovation offsets," as we call them, cannot only lower the net cost of meeting environmental regulations, but can even lead to absolute advantages over firms in foreign countries not subject to similar regulations. Innovation offsets will be common because reducing pollution is often coincident with improving the productivity with which resources are used. In short, firms can actually benefit from properly crafted environmental regulations that are more stringent (or are imposed earlier) than those faced by their competitors in other countries. By stimulating innovation, strict environmental regulations can actually enhance competitiveness.[8]

There is no doubt that regulations have encouraged the search for ways to reduce compliance costs and there may even be instances when this contributed to dramatic productivity improvements that reduced the firm's costs of production below their level prior to the new regulation, improving the firm's competitive position. Such fortuitous outcomes from the growth of environmental regulations are not common and certainly not relevant to the future development of environmental policies. For example, it would be unrealistic to believe that the huge expenditures made by the steel industry to reduce air pollution or the taxes paid by the chemical industry to finance the failed Superfund program have improved the competitiveness of these industries. These industries may be able to reduce some compliance costs through greater efficiency, but the high costs of environmental regulation remain and do nothing to improve the competitive position of U.S. industry. In highly competitive global markets, these industries have no choice but to transfer these costs to workers in the form of lower wages and fewer job opportunities and/or to shareholders in the form of reduced profits.

The Importance of Clear Language

The confusion in Porter and van der Linde's argument often stems from a confusion over definitions. One source of difficulty arises over their use of the term "waste." They correctly argue that companies must learn to frame environmental improvement in terms of resource productivity.[9] Companies maximize profits by using resources as efficiently as possible. A company that uses resources inefficiently can be said to incur waste. But this does not imply that "[f]undamentally, [pollution] is a manifestation of economic waste and involves unnecessary, inefficient or incomplete utilization of resources, or resources not used to generate their highest value."[10] Waste in the form of inefficiency is not always the same as waste defined as pollution, and confusing the two definitions can lead one to the false conclusion that it is always efficient to eliminate pollution. As a dissenting economist points out, "[f]rom a ***company's*** perspective, pollution is only inefficient if it can be prevented for less than it costs the company to deal with it. Because the marginal cost of pollution control rises sharply with the level of removal, it will almost always make sense for a company to stop short of 100% removal, sometimes far short."[11]

Another source of confusion stems from Porter and van der Linde's use of the word "savings." Suppose the government implements a new regulation that increases the cost of a certain firm by $10 million per year. Next assume that this additional cost spurs the business to develop a new technology

---

[6] "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 98.

[7] Porter and van der Linde acknowledge that risk assessment and cost-benefit analysis "is a crucial component of environmental regulation. . . ." Letter to the Editor, *Harvard Business Review*, November-December 1995, p. 206.

[8] "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 98.

[9] "Green and Competitive," *op. cit.*, p. 122

[10] "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 105.

[11] Paul R. Portney, Letter to the Editor, *Harvard Business Review*, November-December 1995, p. 204 (emphasis in original).

that reduces the annual cost to $5 million, while improving productivity. In their examples, Porter and van der Linde often cite this as a "savings" to industry and in one sense it is. But in another sense it is merely a reduction in the cost of the original regulation.[12] If the use of the word "savings" is used to imply that there is no longer any cost to keeping the regulation in place, this is patently false.

Do Environmental Regulations Impose Costs?

Few economists would disagree with any of the following statements: (1) Almost every environmental regulation imposes costs as well as benefits. (2) The annual cost of any regulation is likely to fall over time as those bearing it develop new technology and alter their behavior. For this reason, initial estimates of the cost of new regulations are often overstated. (3) If the total costs exceed the total benefits, the regulation will lower the economic welfare of society and should not be implemented unless there are compelling noneconomic reasons. (4) Whatever environmental standard is chosen, it should be implemented as efficiently as possible.

It is difficult to discover which of these statements Porter and van der Linde agree or disagree with. Statements (1) through (3) all argue for a careful cost-benefit analysis of any standard before it is enacted. This in turn requires measurement of the risks involved. While not taking direct issue with any of the above statements, Porter and van der Linde strongly imply that the need for cost-benefit analysis is overemphasized because the net cost of regulation is likely to be small or even zero, not just for society as a whole, but for regulated sectors as well.[13] In other words, there are no costs, only benefits.

For example, Porter and van der Linde point out that "[p]roperly designed environmental standards can trigger innovations that lower the total cost of a product or improve its value."[14] This sentence merely agrees with statement (2) above. But they then go on to claim that "[u]ltimately, this enhanced ***resource productivity*** makes companies more competitive, not less."[15] This is extremely controversial because it seems to imply that there is no cost to environmental regulation. In other words, they are disputing statement (1) above.

The authors never explicitly deny that regulations can impose net costs to firms. Yet they often dismiss such costs in their analysis.[16] When faced with government statistics that show that the total cost of federal environmental regulation in 1992 was $102 billion, with less than $2 billion in offsets,[17] they state that "those data, self-reported by industry, overstate the costs and grossly understate (or do not even measure) the offsets."[18] Yet a recent study cited several times in one of their articles also uses these estimates and, while it discusses several reasons why the costs may be overestimated, also gives several reasons why, on the whole, they may be understated by 20 percent to 30 percent.[19] Porter and van der Linde also criticize the economic literature for ignoring innovation offsets and leaving out public and private benefits. But the studies do not ignore innovation effects, they just predict that they will be much lower than Porter and van der Linde think they should be. And the public and private benefits are the same ones that Porter and van der Linde earlier cast aside in seeking to show that the net costs to those subject to

[12] See their description of savings at 3M, Dow Chemical, and Robbins Company in "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 103. Porter and van der Linde also repeatedly misunderstand the role of dynamic models of firm behavior. While dynamic models may lower the estimated cost of compliance because they predict changes in management practice and technological innovation, there is no reason to think that these changes will be so large as to reduce significantly the cost of regulations, let alone eliminate them. Their real complaint is that even dynamic models do not predict offsets as large as they believe will exist.

[13] See text quoted in footnotes 8 and 15.

[14] "Green and Competitive," *op. cit.*, p. 120.

[15] *Ibid.* (emphasis in original).

[16] Porter and van der Linde dismiss studies that dispute their contention that current environmental laws do not impose large costs on firms. For example, they dismiss the results of one paper that points out that efficient combustion can still produce nitrous oxides with the comment that ". . . surely this is an anomaly, not the rule, and may represent an intermediate level of efficiency." It is misleading to describe the most efficient current technology as "intermediate technology" just because better technology will presumably exist in the future. "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 106, n. 7.

[17] "Tightening Environmental Standards: The Benefit Cost or the No-Cost Paradigm?" *op. cit.*, pp. 127-28. EPA estimated the costs at $135 billion.

[18] Letter to the Editor, *Harvard Business* Review, *op. cit.*, p. 206.

[19] U.S. Congress, Office of Technology Assessment, *Industry, Technology, and the Environment: Competitive Challenges and Business Opportunities,* OTA-ITE-586, 1994, pp. 186, 196-97, 222-25. The report concludes that "[t]he preponderance of evidence suggests that the survey underreports pollution control costs." P. 196. Porter and van der Linde cite this study several times for its examples of offsetting costs.

environmental regulation are low or negative.[20] The question here is not whether benefits outside the firm exceed the costs inside it. Porter and van der Linde claim to be challenging the existence of the latter.[21]

Porter and van der Linde consistently make the mistake of assuming that because the costs of past regulation have often been much lower than originally predicted, they do not exist. Although they challenge the accuracy of government data, they never give their own estimate. This obscures the exact degree to which they are challenging the conventional wisdom.

Finally, they confuse international competitiveness with the absence of costs. Several studies have shown that American industry as a whole remains internationally competitive despite the cost of environmental regulations. In part this is because our main competitors are also subject to their own environmental restrictions. In part it is due to the fact that, although large in magnitude, environmental costs are still relatively small as a portion of total costs.[22] But it makes no more sense to imply that the cost of environmental regulation is small or does not matter than it does to say that relative wage or tax rates or high health care costs do not affect competitiveness.[23]

Can "Offsets" Significantly Reduce the Cost of Environmental Compliance?

In asserting that environmental compliance can be costless, Porter and van der Linde seem to rely on the belief that the existence of strict environmental standards, by raising the stakes, will force companies to come up with innovative, cost-saving solutions that they would otherwise ignore.[24] Few executives would claim that their businesses are perfectly managed. Rather, they are painfully aware of a host of conceivable inefficiencies in almost every aspect of operations, including pollution control. Environmental regulations can motivate businesses to minimize these costs by reducing inefficiencies associated with existing environmental management practices. This does not mean, however, that business should strive for the elimination of all pollution even if such a goal was feasible. Firms should expend environmental control resources until their marginal cost equals their marginal benefit. This means that waste will be eliminated only if the cost of preventing it is less than the cost of the waste.

Porter and van der Linde argue correctly that government can assist firms in this search by acting as a clearinghouse for information and advice. The government's role in this respect would be somewhat like that of a management consulting firm brought in to advise a firm on how to increase profitability in a given function (in this case pollution reduction). By specializing in the study of waste management and by having knowledge about the practices of other companies, it is possible that government could serve as a useful source of information.

But if government is limited to this role, there would seem to be no need for mandatory environmental standards. If the government is truly able to identify win-win situations, it should be able to convince company executives to implement these new practices without writing them into legislation. Moreover, firms should be willing to pay for the cost of compiling the information since it will

---

[20] The existence of large costs is also documented in an earlier Manufacturer Alliance report, *Cost Implications of Environmental Regulations for U.S. Industry: Why Scientifically Based Risk Assessment and More Efficient Remediation Are Essential,* LAR-319, December 1994. That report found that "although environmental investment increases the social rate of return, such investment generally cannot raise productivity above the level which would have prevailed in the absence of regulation. The costs of lower productivity, however, can be accepted provided that the social benefits of regulations are balanced with the costs." P. 6.

[21] For example, Porter and van der Linde point to the fact that, within the pulp and paper sector, the costs of complying with the 1990 Clean Air Act are $4.00 to $5.50 per ton rather than the $16.40 originally estimated. This is still a large cost, however, both in absolute terms and as a percentage of the total cost of paper.

[22] The OTA study estimates that pollution control costs equaled 1.72 percent of manufacturing value added in 1991. *Industry, Technology, and the Environment, op. cit.*, p. 183.

[23] The authors frequently equate the competitiveness of companies specializing in environmental technology with that of U.S. industry as a whole. They thus lament the fact that American firms might import environmental technology. See, Michael E. Porter, "America's Green Strategy," *Scientific American,* April 1991, p. 96. It is not surprising that strict environmental standards will give a boost to domestic environmental firms. But the government should be concerned with the competitiveness of industry as a whole, not any particular sector. Standards should be based on whether they create net social benefits. If U.S. industry can lower the cost of meeting these standards by importing technology rather than developing it domestically, so much the better. Using environmental standards to assist the development of domestic environmental technology makes no more sense than using federal funds to subsidize agriculture.

[24] This belief does reflect a frequently used business practice. Some companies have found that, by setting "stretch" targets, they can motivate their employees to think "out of the box" and come up with innovative solutions that increase profitability. However, such solutions almost always increase profits by reducing the cost of a constraint rather than eliminate the cost altogether. Moreover, the success of such efforts requires the careful selection of likely areas of improvement. The chances of success are likely to fall if government officials rather than company executives choose the setting and nature of such targets because government lacks knowledge of the exact challenges and opportunities facing each firm.

benefit them. Once again, the government's role here can be compared to that of a management consultant. Companies hire such consultants at their own expense because they believe the consultant's advice will increase their profitability.

But Porter and van der Linde give no indication that the government should back away from mandatory standards. They claim that:

> . . . [T]he belief that companies will pick up on profitable opportunities without a regulatory push makes a false assumption about competitive reality—namely, that all profitable opportunities for innovation have already been discovered, that all managers have perfect information about them, and that organizational incentives are aligned with innovating.[25]

But no one is arguing this. Of course improvements can be made. This is precisely why government coordination could add value. But the existence of inefficiencies does not imply the need for government mandates, much less that such mandates will have little or no cost. The real question is not whether opportunities exist. It is whether it is profitable to look in one direction rather than another and whether government is in a better position to know the correct direction than are businesses. Indeed, it is likely that government would do a worse job because it has other interests beside those of the company to consider and because it lacks an intimate knowledge of the company's particular circumstances.

Most economists argue that exposure to competition and the drive for profits already give businesses strong incentives to eliminate unnecessary waste. In order for government profitably to add further incentives, it would need superior knowledge about the innovative capability of firms. The belief that government is better placed to find these opportunities requires a leap of faith that has seldom been justified by past practice.

Innovative solutions have usually arisen in the private sector, and government, not business, has resisted movements toward the regulatory flexibility that would allow innovative technologies. If the government is to take advantage of the role advocated for it here, it will require structural and management changes much deeper than those Porter and van der Linde urge on businesses.

Porter and van der Linde miss the crucial point that the whole rationale for federal environmental regulations is not to force companies to do things that are in their own economic interest. Rather, it is to force them to do things that are not in the firm's economic interest, but do, however, benefit the broader society's. Because most environmental regulations are not in a company's immediate interest, these standards impose a cost on their operations. This cost can come in a variety of forms including lower returns for stockholders, greater risk for bondholders, lower pay and fewer jobs for workers, and higher prices or lower quality for customers. Because these costs exist, it is extremely important for government to design regulations in a way that keeps costs as low as possible and to ensure that they are outweighed by other benefits to society such as better health, better living and recreational conditions, and a more robust ecosystem.

Need for Regulatory Reform

Perhaps, however, the disagreement between Porter and van der Linde on the one hand and most economists is one of degree only. Certainly, in their final words on the subject, the authors state that "[t]he issue is not whether there are costs involved in meeting environmental regulation. The issue is the way companies and regulations deal with those costs."[26] These costs (which certainly exist) would be much lower if the government adopted the principles for regulation advocated by Porter and van der Linde (and most other economists). Yet even these sensible recommendations often raise questions when it comes to implementation.

Porter and van der Linde recommend that regulations meet several criteria. For the most part these criteria seem sensible. Many of the recommendations have been advocated by economists and by many in the business community for some 25 years and it is only recently that environmental groups and regulators have begun supporting them. They recommend that regulators:[27]

- **Focus on Outcomes, Not Technologies.**—By increasing the options available to producers, flexible standards allow companies to chose the least expensive means of meeting a given standard. As they phrase it elsewhere, regulations should have "clear goals [and] flexible approaches."[28] The problem is that many flexible regulations offer policymakers and industry less

[25] "Green and Competitive," *op. cit.*, p. 127.

[26] Letter to the Editor, *Harvard Business Review, op. cit.*, pp. 206 and 208.

[27] "Green and Competitive," *op. cit.*, p. 124.

[28] "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 110.

certainty as to the final standards achieved. Distrust of business motives and the government's natural desire to control outcomes have caused many in the environmental community to resist the movement toward greater flexibility.

- **Enact Strict Rather Than Lax Regulation.**—By this Porter and van der Linde presumably mean that the final level of environmental protection should be higher rather than lower. They argue that incremental regulations will not force companies to adopt innovative solutions. This may be true, but it is nonsensical to believe that it will be less costly to meet a high standard than a low one. If this were true, companies would adopt the higher standard voluntarily even if the lower one were enacted (as they sometimes do). Again, Porter and van der Linde seem to rely on the hope that stricter standards will force companies to "think out of the box" and therefore come up with solutions that they would otherwise not find. As Samuel Johnson once said, "When a man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully." But the fact that this may occasionally happen in practice does not make it a wise basis on which to conduct government policy.[29]
- **Regulate as Close to the End User as Practical, While Encouraging Upstream Solutions.**—In some cases this is likely to be the most efficient means of minimizing costs within a chain of production. In other cases it will not be. Especially where taxation is used as a policy tool, the correct point of assessment within the chain will depend upon the ease of measurement and enforcement. For example, efforts to reduce environmental exposure to lead are likely to benefit more from a direct tax on lead imposed on refiners than from regulation of end users such as paint manufacturers.
- **Employ Phase-In Periods.**—This is a sensible policy that seems to conflict with the earlier support for strict regulation. Phase-in periods allow companies to delay the cost of compliance and to use existing technology for more of its natural life. However, they do not expose companies to the shock treatment that Porter and van der Linde seem to think motivates innovative solutions. What is perhaps most important about this regulatory goal is that companies know the long-term rules of the game and be permitted to plan on them. Whether the rules are fair or unfair, companies are better off knowing them well in advance.
- **Use Market Incentives.**—Most manufacturers would strongly agree with the contention that "[w]here possible, regulations should include the use of market incentives, including pollution taxes, deposit-refund schemes and tradable permits."[30] The demand for such incentives underlies much of the current push for a reform of environmental laws.
- **Harmonize or Converge Regulations in Associated Fields.**—Porter and van der Linde mention three areas in which coordination needs to be improved: between industry and regulators, between regulators at different levels and places in government, and between U.S. regulators and their international counterparts.[31] But convergence needs to occur in the direction of sensible regulations reflecting careful risk analysis and cost-benefit studies. Applying overly strict requirements more broadly is not the solution.
- **Develop Regulations in Sync With Other Countries or Slightly Ahead of Them.**—To the extent that foreign competitors face the same regulatory costs as American companies, we will not suffer a competitive disadvantage. The desire for uniformity does not, however, justify the adoption of rules that do not create net public benefits. If other countries begin moving toward carbon taxes to reduce global warming, the United States' decision on whether or not to join must still be based largely upon whether such taxes, imposed globally, would create net environmental benefits for Americans. As a second point, it is not always clear that the economy will benefit by leading other nations. On the one hand, higher American standards will spur innovative technology and place environmental firms ahead of the technology curve. On the other hand, lagging international standards could allow American companies to adopt, purchase, or lease environmental technology discovered by others at a lower cost than it would take to develop the technology *de novo*. Moreover, U.S. policymakers may do a poor job of predicting the direction of future regulations in other countries.

[29] The argument here is similar to saying that a company should unilaterally increase its wages across the board in the hope that this will motivate it to find new ways of using labor more productively. Higher wages no doubt will force the company to economize on labor, but its profitability is still likely to suffer as a result of the higher wages.

[30] "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 111.

[31] *Ibid.*, p. 113.

In the end, policymakers in all countries will be better off basing their decisions on traditional cost-benefit analysis.

Conclusion

Speaker of the House Newt Gingrich (R-GA) recently criticized a current member of the Clinton cabinet for basing policy on how business executives would run their businesses if they were smart enough to get tenure at Harvard. The same aura of confidence underlies the two articles discussed here. Almost all the examples cited by Porter and van der Linde came from the business community. Yet the authors still assert that ". . . companies are still inexperienced in dealing creatively with environmental issues"[32] and strongly imply that government (presumably guided by experts such as the authors) can do a better job.

The country is currently undergoing a broad reevaluation of government's traditional role in the economy. This search for better approaches has focused in particular on environmental policy. But if the need for better policy is widely accepted, the details of a new approach are not. This is why it is especially important to think clearly about both the costs and the benefits of environmental regulation. It is noteworthy that Porter and van der Linde have nothing to say about the current battle in Congress over the future direction of environmental and regulatory policy. In spite of their regulatory recommendations, the implication of their articles is that it is the business community, not the government, that most needs to change its behavior.

The real cause of the success stories that Porter and van der Linde mention is not environmental regulation but technological progress in general. New technology usually allows us to produce more with less, including less pollution. Although businesses could do a better job of integrating environmental constraints into their planning, it is likely that further technological progress, in whatever direction it occurs, will continue to contribute to a cleaner environment.

Unfortunately for policymakers, technological progress has its own pace and direction, which responds only weakly to government direction. By far the largest contribution that government can make toward technological progress is to maintain competitive environments in which businesses face continuous pressure to improve but have access to vital inputs such as capital, skilled labor, and raw materials.

Where Porter and van der Linde argue for maximum flexibility in the implementation of a given environmental standard, they lend important support to those in the business community who have long been advocating similar reforms. And when they cite instances in which companies have gained a competitive advantage by finding innovative ways to reduce or even eliminate the cost of environmental regulations, they remind executives that they should attack and scrutinize environmental costs the same way that they do other cost sectors.

But when they imply that we should not really worry about the cost of environmental regulation, they do a disservice and impede reform. There ***is*** a trade-off between competitiveness and growth on the one hand and environmental protection and health on the other. Although cases can be found where these goals are not in conflict, they are almost always likely to involve a trade-off. This does not mean policy officials should not choose environmental goals in many cases. But in doing so, we must be aware of the costs involved and, insofar as possible, make sure that the net gain to society is always positive.

This report was prepared by
Joseph V. Kennedy
Attorney/Economist
Further information on this subject may be obtained
by contacting him at 703/841-9000

[32] "Toward a New Conception of the Environment-Competitiveness Relationship," *op. cit.*, p. 99.