5. THE GREENING OF ADAM SMITH

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The environmental movement is poised to enter a second generation. For two decades it prompted significant improvements in the quality of our air, water, land, and natural resources, primarily through "command and control" regulations that essentially told firms what pollution control technology to use and how much pollution they could emit.

Now, in an era of new environmental challenges and heightened sensitivity to regulatory compliance burdens, there is an emerging awareness that market forces can offer a more powerful, far-reaching, efficient, and democratic tool than centralized regulations for protecting the environment.

The progressive challenge for environmentalists in the 1990s is to move toward greater reliance on market-based policies. In particular, our nation can combat many old and new environmental threats with one subset of market-based approaches, called pollution charges or "green charges."

Command and control regulations were powerful in the early battles against environmental degradation, but they have begun to reveal many of the same limitations that led to the collapse of command and control economies around the globe. Command and control regulations are often economically inefficient — that is, excessively costly — because they ignore market signals about which firms can reduce emissions most cheaply.

ommand and control rules can hamper technological innovation by locking firms into outdated pollution control equipment. They ignore important differences

among individuals, firms, and regions. And command and control regulations tend to make the environmental debate a closed, technical discussion among bureaucrats and vested interest groups rather than an accessible public dialogue.

arket-based policies start with the assumption that the best way to protect the environment is to make it in the daily selfinterest of individuals and firms to do so. The key to greater environmental protection, then, is not more centralized rulemaking, but decentralization - by changing the financial incentives that face millions of firms and individuals in their private decisions about what to consume, how to produce, and where to dispose of their wastes. As a result, market-based policies offer many important advantages:

- They can enable environmental protection to be pursued at less cost of compliance to private industry, and thereby at less cost to consumers.
- They can give firms a constant incentive to find new and better technologies for combatting pollution rather than locking one kind of pollution control technology into place.
- They can help move environmental protection laws and regulations out of the exclusive domain of experts scientists, economists, lawyers, and lobbyists and open up the process to the public.
- They help decentralize power from public bureaucrats to private firms and individuals by building incentives for pollution control into the cost structure, and, as a result, into daily decisions and long-term strategies.
- They make the incremental costs of environmental protection more visible, and thus focus public debate on the tradeoffs between protection and other economic goals, rather than sim-

ply on the evils of pollution.

• Because some market-based approaches such as pollution charges

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raise substantial revenues, they can enable government to reduce "distortionary" taxes — ones that reduce market efficiency by taxing desirable activities, such as investment and labor — and replace them with levies that discourage socially undesirable behavior, such as pollution and degradation of natural resources.

Thile such market-based approaches are not a new idea - they have been proposed by economists for the past 25 years — their use has been widely resisted: by environmentalists who view the market as the problem rather than a solution; by environmental bureaucrats who resist change from an old regulatory system that emphasized highly-technical specifications about pollution control devices and standards; by lobbyists on both sides of the debate whose role in the process could be endangered by this new approach to environmental protection; by elected officials who are either worried that the public will view these market-based approaches as new taxes, or simply resistant to new ideas; and, of course, by those who oppose environmental protection altogether.

But now a confluence of forces has heightened interest in market-based approaches. Sluggish economic growth, high public sector deficits, and concerns over international competitiveness have focused new concern on the private and public costs of environmental regulation; some estimate that we now spend over \$100 billion annually to comply with Federal environmental rules.

Changes of attitude within the environmental movement and bureaucracy also seem to herald a new openness to using market forces to regulate the market itself. And the emergence of new threats to the environment, such as global warming, has combined with the stubbornness of old threats, such as toxic wastes, to spur the search for better ways to control pollution.

These forces are likely to focus attention on market-based environmental policies, if not as a replacement for current regulatory approaches, then at least as a valuable new set of tools for pursuing environmental quality.

The most significant step to date at the Federal level was the inclusion of tradable "pollution-reduction credits" in last year's Clean Air Act Amendments. These permits represent a distinctly market-based approach to combatting acid rain by encouraging the greatest reductions in smokestack emissions from those electric utilities that can make those reductions most efficiently.

While some of the possible savings from trading may ultimately be eroded by regulatory constraints, the potential for cost savings is enormous, and this action may have launched a new era in environmental policy. Legislators and other policy makers are now discussing the potential for tradable permits for a broad range of environmental problems, ranging from the recycling of newsprint to the control of greenhouse-gas emissions.

Tradable permits, however, are by no means the only market-based instrument at the disposal of policy makers. In fact, a portfolio of market incentives exists. One of the more promising of these is green charges.

reen charges force firms or individuals to pay for the external costs of pollution and to incorporate those added costs into their daily decision making; in the parlance of economists, they "internalize the externalities." Green charges could be put into use in the context of four specific environmental challenges:

Global Warming. Carbon charges to reduce "greenhouse" gases, as part of U.S. efforts to combat global warming.

Motor Vehicle Fuel Efficiency. Gasoline taxes to foster greater fuel efficiency by affecting the kinds of automobiles people choose to buy and the amounts they choose to drive.

Garbage and Landfills. More effective charges to households for trash pick-up, and new charges to retail consumers for certain kinds of containers, in order to encourage conservation and reduce the volume of solid waste going into municipal landfills.

Toxic Wastes. "Deposit-refund" systems (akin to the idea behind deposits on returnable bottles) to help ensure the proper disposal of the 20 million lead batteries disposed each year, as well as industrial solvents and other hazardous wastes.

In these and other settings, green

charges can provide environmental solutions that are more cost-effective, require less government intervention, encourage greater conservation, and spur the development of better technologies.

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The argument for green charges is fundamentally political as well as technical. The American public has been shielded for years from many of the very real trade-offs involved in establishing our environmental goals and standards. Policy formulation has been shrouded in technical complexity, which obscures the more basic choice of how much we are willing to sacrifice for increased environmental quality.

Conventional regulatory approaches impose costs on industry and consumers that are not readily visible. Because neither policy makers nor citizens can see how much they are paying for given levels of environmental protection, they have little basis for weighing relative risks.

Green charges bring these important tradeoffs into the open civic arena, where they belong, by making the incremental costs of environmental protection explicit. As a result, policy discussions can move away from a narrow focus on technical

specifications to a broader consideration of goals and strategies. This shift should encourage the involvement of the American public in debates over the right degree of environmental protection. In this way, the public can recapture the critical decisions of environmental goal-setting from bureaucrats, technicians, and special interest groups.

ecause green charges require political and bureaucratic change, they are unlikely to be adopted instantly or without controversy. But ultimately, rising concerns over economic stagnation, high deficits, and new environmental challenges are likely to make green charges increasingly attractive in the coming years. And the old hesitancy to adopt such market-based approaches may be overcome as politicians discover that they can be explained to voters in terms that resonate well with Americans' fundamental sense of fairness: "the polluter ought to pay."

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