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Green Competitiveness

By Michael Porter

Do strict environmental standards make U.S. industry less competitive in international markets? Many think so. Richard Darman, director of the Office of Management and Budget, has quipped that “Americans did not fight and win the wars of the 20th century to make the world safe for green vegetables.”

The conflict between environmental protection and economic competitiveness is a false dichotomy based on a narrow view of the sources of prosperity and a static view of competition.

Strict environmental regulations do not inevitably hinder competitive advantage against foreign rivals; indeed, they often enhance it. Tough standards trigger innovation and upgrading. In my book *The Competitive Advantage of Nations*, I found that the nations with the most rigorous requirements often lead in exports of affected products.

Although the U.S. once clearly led in setting standards, that position has been slipping away. Until the grudging passage of the Clean Air Act in 1990, Congress had passed little environmental legislation since the mid-1970s. Today our leadership in setting environmental standards has been lost in many areas. Even Japan, a nation regarded as relatively unconcerned about the environment, has moved ahead of the U.S. in important fields.

As other nations have pushed ahead, U.S. trade has suffered. Germany has had perhaps the world’s tightest regulations in stationary air-pollution control, and German companies appear to hold a wide lead in patenting—and exporting—air-pollution and other environmental technologies. As much as 70 percent of the air pollution-control equipment sold in the U.S. today is produced by foreign companies. Britain is another case in point. As its environmental standards have lagged, Britain’s ratio of exports to imports in environmental technology has fallen from 8:1 to 1:1 over the past decade.

In contrast, the U.S. leads in those areas in which its regulations have been the strictest, such as pesticides and the remediation of environmental damage. Such leads should be treasured and extended. Environmental protection is a universal need, an area of growing expenditure in all the major national economies (\$50 billion a year in Europe alone) and a major export industry.

Even in the broader economy, strict standards may actually foster competitiveness. Exacting standards seem at first blush to raise costs and make firms less competitive. This may be true if everything stays the same except that expensive pollution-control equipment is added.

But everything will not stay the same. Properly constructed regulatory standards, which aim at outcomes and not methods, will encourage companies to re-engineer their technology. The result in many cases is a process that not only pollutes less but lowers

costs or improves quality. Processes will be modified to decrease use of scarce or toxic resources and to recycle wasted by-products.

Strict product-regulations can also prod companies into innovating to produce less polluting or more resource-efficient products. As a result of the U.S. proposed phaseout of chlorofluorocarbons (CFCs), for example, Du Pont and other American firms are pioneers in finding substitutes.

This is not to say that all companies will be happy about tough regulations: increased short-term costs and the need to redesign products and processes are unsettling at the least. The aversion to tough standards will be particularly strong in industries that feel threatened by international competition, as is too often the case in America today.

The strongest proof that environmental protection does not hamper competitiveness is the economic performance of nations with the strictest laws. Both Germany and Japan have tough regulations. In America, many of the sectors subject to the greatest environmental costs have actually improved their trade performance, among them chemicals, plastics and paints. Japan has become a world leader in developing pollution-control equipment and cleaner, more efficient processes.

Turning environmental concern into competitive advantage demands that we establish regulations that stress pollution prevention rather than abatement or cleanup. They must not constrain the technology, or else innovation will be stifled. Because U.S. environmental regulations have traditionally violated these principles, the substantial amount we spend on protecting the environment has not yielded the benefits it could have. The resurgence of concern for the environment, then, should be viewed as an important step in regaining America's preeminence in environmental technology and its competitive edge in the international marketplace.

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