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Yes: 'Green taxes would reduce pollution and support economic growth.'

BY ROBERT N. STAVINS

Imposing new charges on pollution-generating activities offers the Clinton administration and the new Congress a significant opportunity to both reduce pollution and encourage economic growth.

This "double dividend" is possible because the new charges can both discourage pollution-creating activities and generate significant new revenue for the federal government. This, in turn, would allow the government to reduce taxes on socially desirable activities, such as labor and investment. Such a move would make the federal tax code more supportive of economic growth.

To achieve these multiple goals, the Clinton administration and Congress should consider charges on greenhouse gases and increases in the federal gasoline tax. The administration and Congress could offset these tax increases by decreasing other taxes, such as personal and corporate income taxes and the Social Security tax. The entire system could be revenue neutral or it could provide limited new revenues for other major policy goals, such as deficit reduction or investments in human and physical capital.

Concern over the greenhouse gases, particularly carbon dioxide (CO_2), relates to global warming. Many scientists believe that if greenhouse-gas emissions continue to grow at current rates, global mean temperatures may rise by 2 to 5 degrees Fahrenheit over the next century. Such an increase could cause widespread changes in precipitation patterns, storm frequencies and intensities, and ocean levels.

International negotiations have focused on how much to limit emissions and how to allocate the control burden among nations. If the international community can agree, there will be even more pressure on the U.S. to find ways to achieve its national emissions reduction goals.

A properly designed CO_2 charge system could enable the U.S. to achieve in a cost-effective way an internationally set emissions reduction goal. Such a system would impose charges to increase the costs of CO_2 emissions. The "carbon-tax" would vary by the amount of CO_2 generated by principal types of fossil fuels (coal, oil and natural gas). This would reduce direct demand for fossil fuels, encourage conservation, lead to a more appropriate use of resources and stimulate the development of new, less carbon-intensive technologies.

The CO_2 charge offers several advantages over conventional regulatory approaches. First, it would be far more cost effective. By encouraging the

greatest reductions in CO_2 emissions by firms that can make those reductions most cheaply, a charge system could reduce total industry compliance costs. Its administrative costs would also be much lower than conventional regulatory standards that limit fossil-fuel burning by setting different standards for thousands of industrial, commercial and residential uses of fuel. Second, CO_2 charges would create incentives for technological innovation because the introduction of new technology might be cheaper than paying the new tax.

The charge level should be set to encourage reductions in CO_2 emissions sufficient to achieve the country's targets. This is easier said than done. While a carbon charge could reduce fossil-fuel use, the size of the reduction at different charge levels is uncertain. Projections indicate that a $100 per ton carbon charge, phased in over 10 years, would, by the year 2000, lead to between an 8 percent and 36 percent reduction in the amount of emissions relative to what would have occurred without the charge. Such a charge could lead to a 75 percent increase in the price of crude oil, a 30 percent increase in gasoline prices and a 25 percent increase in the price of electricity.

Some argue that our goal must be to reduce actual emissions to 20 percent below their 1990 levels. According to an analysis by Alan Manne and Richard Richels, achieving this goal would require a $200 to $400 per ton charge. Dale Jorgenson and Peter Wilcoxen, however, believe that Manne and Richels may have overestimated the necessary charge by making excessively conservative assumptions and failing to allow for technological change.

Policy makers obviously cannot overlook the impact of a carbon charge on U.S. economic activity. If the U.S. unilaterally adopted a phased-in $100 per ton charge, it could lead to a 2 percent annual loss in the gross national product by the time of full implementation. The impact, however, would be substantially less if other nations acted in concert. Rebating the revenues from this CO_2 charge by reducing other taxes, moreover, could offset any projected loss in GNP altogether.

The administration and Congress should also consider increasing gasoline taxes to address a broader set of environmental and economic concerns. According to the Department of Energy, a 50-cent-per-gallon increase in the gasoline tax could eventually reduce gasoline consumption by 10 percent to 15 percent, reduce oil imports by 500,000 gallons per day and generate about $40 billion a year in revenue.

This is a chance to bring environmental policy making out of the closet.

If our focus is purely on CO_2 emissions, a gasoline tax is likely to be less attractive than a carbon tax since gasoline consumption is linked less directly with carbon emissions. In principle, there may be arguments in favor of both a carbon and a gasoline tax, but the public may tolerate only one new federal green charge initiative. Apart from issues of dependence on foreign oil and global climate change, moreover, most of the problems associated with gasoline consumption—notably smog and traffic congestion—are regional or local in nature. A pragmatic approach, therefore, may be to focus on a carbon charge at the federal level and leave consideration of gasoline taxes to the states.

It is important to ensure that the impact of the gasoline and carbon taxes do not fall most heavily on the poor. By some measures, lower income households spend a larger share of their incomes on fossil-fuel related products than do more affluent households. As a result, a carbon charge might hit these households harder.

To prevent this from happening, the government could transfer some or all of the tax revenues to the Social Security trust fund while also reducing payroll taxes currently paid into the fund. If, for example, the government paid the $40 billion a year from a 50-cent-per-gallon gasoline tax into the Social Security trust fund, it could cut the payroll tax by almost a third. This means a worker with annual wages of $30,000 would take home an additional $700 a year. The extra income would more than offset the cost of the gas tax, unless the worker drove more than 35,000 miles per year in a car getting 25 miles (or less) per gallon. The gas tax could be phased in so workers and industries would have time to adjust to the new taxes. The government also could mitigate a carbon tax's impact on low-income households by establishing low "lifeline rates" for initial increments of energy.

These changes, along with a host of other market mechanisms for environmental protection, offer the opportunity to bring environmental policy making out of the closet. Achieving greenhouse goals such as an actual 20 percent reduction in CO_2 emissions could entail very substantial costs, regardless of the policy tool that is selected. By making these costs apparent, pollution charges tell the public what it will cost to reduce the risks of global climate change.

This would be an important policy change. Americans have historically been shielded from the many very real trade-offs involved in establishing our environmental goals, policies and standards. Policy formulation has been shrouded in technical complexity, which frequently obscures the more basic question of whether we are getting our money's worth from our choices about environmental goals and the means for achieving them.

Conventional regulatory approaches impose costs on industry that are not readily visible (but are partially passed on to consumers). Pollution charges and other market-based instruments can bring these important questions into the open by making explicit the incremental costs and advantages of environmental protection. 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 help get the American public involved in constructive debates regarding the desirable levels and types of environmental protection. The public can recapture the critical decisions of environmental goal setting from bureaucrats, technicians, special interest groups and politicians. ■

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