

TAXES, TRADEABLE PERMITS, AND GLOBAL CLIMATE CHANGE

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At a time 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, and efficient tool than conventional "command-and-control" regulations for protecting the environment. Market-based environmental policies can harness the powers of our economy on behalf of environmental protection, and thereby can enable us to achieve our environmental goals with less sacrifice of other social and economic objectives. Senator Joseph Lieberman is to be commended for his enthusiastic endorsement of this set of new, innovative approaches to environmental policy in his article, "To Market, To Market."

Much attention is now being given to the market mechanism adopted in the Clean Air Act Amendments of 1990 for the control of acid rain -- tradeable sulfur dioxide (SO₂) allowances. It is estimated that this policy mechanism will serve to reduce SO₂ emissions by half at an annual savings in control cost of some \$1 billion. This same approach was previously used in EPA's successful phasedown of lead in gasoline at a savings of over \$250 million annually. Such successes, however, do not mean that this single policy tool is appropriate for all environmental problems. While I applaud the use of tradeable permits for acid rain control and the leaded gasoline phasedown, I also believe that we have to question the wisdom of adopting this approach as the new panacea for the environment.

Senator Lieberman, and the co-sponsors of the COPE (CO₂ Offset Policy Efficiency Act) legislation -- Senator John Chafee, and Representatives Jim Cooper and Mike Synar - are moving in the right direction, but they need to reconsider their proposal and channel their enthusiasm and creativity into designing a truly workable approach. No single policy mechanism -- whether incentive-based or conventional -- can adequately address all environmental problems. The real challenge is to choose the right approach for each problem we face.

In the case examined by Senator Lieberman -- U.S. control of carbon dioxide (CO₂) emissions as part of a national greenhouse-gas strategy -- the tradeable-permit system he describes is simply *not* the best approach to take. The monitoring and enforcement burden of the Senator's system of tradeable CO₂ permits would be so great that it would erase any efficiency gains the system might otherwise provide. There are far too many discrete sources of CO₂ in our fossil-fuel based economy for the system described to make sense.

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If a CO₂ tradeable permit system is to be adopted, permitting and trading should *not* be at the *plant* level (on CO₂ emissions), but rather should apply to permits issued to fossil-fuel producers and importers, linked to the carbon content of coal, petroleum, and natural gas. In this way, the number of firms involved in trading will be vastly decreased, transactions costs trimmed tremendously, and the nearly impossible task of monitoring and enforcing emissions levels at so many disparate sources will all but disappear.

Such a tradeable permit system among fossil-fuel producers would not be a true "emissions" program, but this need not be a concern. Since the carbon content of fossil fuels is roughly proportional to the CO₂ they emit upon combustion and since CO₂ sequestration technologies (apart from forestation) are unlikely to play a major role in control strategies, economic-incentive regulations aimed at fossil fuels will have the same effect as regulations aimed at actual emissions, but at great savings in administrative costs.

Furthermore, there exists an even better alternative for CO₂ control, and this comes from another category of market-based environmental policy mechanisms -- a pollution charge system, in particular, a set of "carbon taxes," set proportional to the carbon content of fossil fuels. Charges would do the job of reducing CO₂ emissions at vastly lower administrative costs than would the COPE tradeable-permit system.

In addition, because charge systems, such as carbon taxes, would raise substantial revenues, they can enable government to reduce simultaneously "distortionary" taxes -- ones that reduce market efficiency by taxing and thus discouraging fundamentally desirable activities, such as labor and investment -- and replace them with levies that discourage socially undesirable behavior, such as environmental pollution. Appropriately scaled carbon taxes could be introduced together with multi-billion dollar cuts in personal income taxes or corporate profits taxes for revenue-neutral policy changes, thereby providing the double dividend of minimum-cost environmental protection and increased efficiency of the economy.

Senator Lieberman provides several arguments against a tax approach. First, he indicates that "no new tax scheme would survive the legislative process without a host of exemptions, fluctuating rates, and other loopholes." I cannot disagree, but even a cursory glance at the recently enacted tradeable-permit program for SO₂ -- with its special "bonus allowances" intended to favor specific regions, technologies, and industries -- indicates that tradeable-permit programs are hardly immune from such legislative tinkering. Second, Senator Lieberman states that fossil fuel taxes are regressive. But, the revenue-neutral policy I have outlined above can be made as progressive as one desires, simply by the nature of the cuts in existing taxes.

Third, the Senator worries that "the public's willingness to accept tax increases ... is dubious." Although I lament the apparent paralysis on this issue in Washington, the public's "willingness to pay" for increased environmental protection certainly *ought* to be considered, *not* derided. Indeed, one of the great advantages of the pollution-charge approach is that such charges make the costs of environmental protection more visible to both industry and the general public. While this may be politically problematic in the short-term, it clearly

signals and educates the public about the very real costs and tradeoffs associated with various levels of environmental protection.

Because pollution charges such as carbon taxes require substantial political 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."