

AN ECONOMIC PERSPECTIVE



By Robert N. Stavins

A Better Climate Change Agreement

The causes of environmental problems in market economies are fundamentally economic: they are the unintentional and unfortunate by-products — externalities — of businesses producing goods and services and/or consumers using them. Likewise, the consequences of environmental problems have important economic dimensions. Given that both the causes and consequences of environmental problems have key economic dimensions, it should not be surprising that an economic perspective can provide useful insights into sensible solutions. A timely example is provided by national and international debates about global climate change.

After seven years of uncertainty, the Kyoto Protocol to the UN Framework Convention on Climate Change has just come into force — despite the lack of participation by the United States, Australia, and several other industrialized countries. With ratification by Russia late last year, the threshold required for implementation of the protocol was finally met.

It may be said that when President Bush withdrew the United States in 2001 from international negotiations on the Kyoto Protocol he missed an opportunity to propose a sound alternative, but his opposition was hardly new or unique. In 1997, Senator John Kerry joined with his Senate colleagues in its 95-0 vote (on the Byrd-Hagel resolution) that critiqued the Kyoto Protocol in advance, warning of reliance on targets for industrialized countries alone, despite the fact that

growth in greenhouse gas emissions is projected to come primarily from developing countries.

So neither the president nor his recent Democratic challenger endorsed Kyoto, which would have been very costly for the United States to implement, partly because our unparalleled economic growth in the 1990s made our target under the agreement particularly difficult to achieve, and because meeting the protocol's abrupt target would have rendered large parts of our capital stock prematurely obsolete. At the same time, the protocol will have only trivial effects on global emissions, because it relies on short-term emissions reduction targets for 34 industrialized countries and no targets for the 154 other nations. Thus, the Kyoto Protocol is too little, too fast.

Although such bipartisan skepticism about Kyoto is fundamentally well founded, it need not imply opposition to meaningful action. A credible international approach is required for this global problem. Support for the unilateral, domestic program in the McCain-Lieberman legislation is not sufficient, and the claim that research and voluntary action are sufficient is not credible. Rather, the United States should work to develop the architecture of an international agreement that is acceptable to the president, the Senate, and the international community. There is no silver bullet, but an economic perspective suggests three key elements.

First, both industrialized and developing countries must have serious responsibilities, if an agreement is to be truly effective. There needs to be a mechanism for developing countries to take on commitments once their per capita GDP has reached agreed levels. In the short run, developing nations must board the global climate agreement train, but cannot be expected to pay for their tickets. A well structured international emissions trading program, combined with targets for developing countries that become more stringent as they become wealthier, can do the job cost-effectively and fairly.

Second, long-term targets are required for this long-term problem. Greenhouse gases remain in the atmosphere for decades to centuries. Costs

can be kept low in the short-term by employing moderate targets, which will not require drastic actions. But the anticipated future severity of the climate change threat requires that more ambitious long-term targets be put in place now, to motivate needed technological change. We ordinarily lament the fact that politicians in representative democracies design policies that place the greatest costs on future — not present — voters. In the case of global climate policy, that is not only politically pragmatic, but also scientifically sound and economically rational.

The third key element is to work through the market. Market-based instruments can keep down costs of emissions reductions in the short term and bring them down even lower in the long term through technological change. Domestically, a system of tradeable permits can be used, the same mechanism employed in the United States in the 1980s to eliminate leaded gasoline from the market, and the mechanism used currently to cut sulfur dioxide emissions by 50 percent, at a savings of \$1 billion per year, compared with conventional approaches. Internationally, a system of tradeable permits can reduce costs by as much as 75 percent by financing more climate-friendly development paths in poor countries while sparing rich countries the most wrenching and least politically realistic adjustments.

By working with other nations to develop the architecture of a new international agreement based on sound science, rational economics, and pragmatic politics, the United States can place itself where it ought to be — in a position of international leadership — on this global issue. There is no denying that the challenges facing adoption and successful implementation of this policy architecture will be significant, but they need not be insurmountable nor any greater than the challenges facing other approaches to the threat of global climate change.

Robert N. Stavins is the Albert Pratt Professor of Business and Government at the John F. Kennedy School of Government and Director of the Environmental Economics Program at Harvard University. He can be reached at robert_stavins@harvard.edu.