



GLOBAL WARMING AND THE WORLD TRADING SYSTEM

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Preface

The ongoing global negotiations on global warming are likely to produce the greatest changes in international institutional architecture since the end of the Second World War. The new climate change regime is in turn likely to have profound effects on the world trading system and its institutions. Hence the relationship between the prospective rules on greenhouse gases and international trade will be of enormous importance to both the global environment and the world economy. This study analyzes those linkages and proposes a course of action that would maximize the success of the attack on global warming while minimizing the risk to world trade.

Before the financial crisis hit the world economy in 2008, optimism prevailed that US emission controls would soon be enacted. Congressional debate on the design of climate change measures was vigorous as experts and the public alike reconsidered their attitudes toward global warming. The severe global downturn, however, has slowed momentum toward climate action both in the United States and internationally. Domestically, it seems unlikely that the United States will enact its own emissions control legislation before 2010. Internationally, it seems likely that countries will agree on broad principles at the Copenhagen conference, scheduled for December 2009, but hard decisions could be delayed another year or more.

A stumbling block for the United States in enacting mandatory emission targets is the apprehension that heavy costs will lead to “leakage” of production and jobs to foreign firms located in countries that do not equivalently limit carbon emissions, such as China and India. Not surprisingly, the severe economic downturn has intensified fears of losing

competitiveness. To address these “leakage” concerns, US legislators have drafted special provisions in their greenhouse gas control bills such as free allocation of allowances, exemptions from the new controls, and border adjustments. Other countries have done the same in binding legislation (the European Union) or draft proposals (e.g., Australia and Canada). Several US bills also contain “leverage” provisions designed to prod China, India, and other large but reluctant emitting nations to take action. Both “leakage” and “leverage” measures could affect US exports and imports, especially two-way trade with countries that do not enforce comparable climate policies. Similar adverse trade impacts could result from national legislation enacted by other countries.

Against this background, the authors evaluate the consistency of climate policy options with core principles of the world trading system as set forth in the decisions of the General Agreement on Tariffs and Trade, the World Trade Organization (WTO), and its Appellate Body. Gary Clyde Hufbauer, Steve Charnovitz, and Jisun Kim argue that both import-restrictive measures and measures that appear to subsidize exports stand a fair chance of being challenged in the WTO. Unilateral import bans, border taxes, and comparability mechanisms could cause a drawn-out period of severe trade friction.

Given the uncertainties of the effectiveness of trade steps, their potential to interrupt trade, and their possible conflict with WTO rules, the authors argue that WTO members should attempt to negotiate a code that defines the “policy space” for climate control measures in ways consistent with core WTO principles. To encourage WTO negotiating efforts toward a Code of Good WTO Practice on Greenhouse Gas Emissions Controls, the authors suggest that the United States and other important emitting countries adopt time-limited “peace clauses” in national climate legislation. These clauses would suspend the application of border measures or other extraterritorial controls for a defined period while WTO negotiations are under way.

The Peter G. Peterson Institute for International Economics is a private, nonprofit institution for the study and discussion of international economic policy. Its purpose is to analyze important issues in that area and to develop and communicate practical new approaches for dealing with them. The Institute is completely nonpartisan.

The Institute is funded by a highly diversified group of philanthropic foundations, private corporations, and interested individuals. About 22 percent of the Institute’s resources in our latest fiscal year were provided by contributors outside the United States, including about 9 percent from Japan. The Doris Duke Charitable Foundation provided generous support for this study.

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Introduction

Scientific opinion has coalesced around the view that human activity, through the emission of greenhouse gases, makes a major contribution to global warming, even though natural forces are also at work.¹ In 2006 a team led by the English economist Sir Nicholas Stern issued a striking report that sized up the economic dimensions of global climate change and called for immediate collective action to reduce greenhouse gas emissions. According to the Stern report, the danger of huge future costs can be reduced by incurring relatively modest costs over the next few decades.² In this vein, at the United Nations Climate Change Conference in Bali, Indonesia, in December 2007, representatives of 187 countries agreed on the so-called Bali Roadmap, which promises talks over the next two years

1. “Radiative forcing” measures how the energy balance of the earth-atmosphere system is influenced by various factors that affect climate. The Intergovernmental Panel on Climate Change (IPCC) has found that radiative forcing resulting from factors that are affected by human activity has been much larger than the radiative forcing resulting from natural processes. For more details, see IPCC (2007a). The report is also available at www.ipcc.ch (accessed on January 12, 2009).

2. The Stern report argued that the risk of the worst effects of climate change can be substantially reduced if greenhouse gas levels in the atmosphere are stabilized between 450 and 550 parts per million (ppm) CO₂ equivalent (CO₂e). The current level is 430 ppm CO₂e, and the concentration is rising at more than 2 ppm each year. Stabilization in the range advocated by Stern (450 to 550 ppm CO₂e) would require a drop in emissions at least 25 percent below current levels by 2050. Ultimately, annual emissions would need to be brought down by more than 80 percent below current levels. The report estimated annual costs of about 1 percent of global GDP to achieve stabilization between 500 and 550 ppm CO₂e if strong action is taken now. The full Stern (2006) report is available at www.hm-treasury.gov.uk (accessed on January 12, 2009).

to develop a new treaty that would replace the Kyoto Protocol after 2012.³ At the United Nations Climate Change conference held in Poznan, Poland in December 2008, countries reaffirmed their commitment to the post-Kyoto regime and asserted that the economic downturn should not be an excuse for delaying action on climate change. While countries addressed technical details and presented proposals for elements in a post-Kyoto agreement, the Poznan conference failed to address key issues such as bound targets for emissions reduction by developing countries and technical and financial assistance from developed countries. Moreover, the current financial turmoil raises doubts that countries will reach agreement on a comprehensive new international climate regime in Copenhagen by December 2009.

In the midst of the climate change debate, the United States has been roundly criticized for its reluctance to take action. Although the United States ranked among the largest emitters of greenhouse gases, the US Senate passed the Byrd-Hagel Resolution by a 95–0 vote in 1997, effectively rejecting the Kyoto Protocol.⁴ The Bill Clinton administration signed the Kyoto Protocol in 1998, but it never submitted the protocol to the Senate, acknowledging the force of the resolution. The George W. Bush administration rejected the Kyoto Protocol in 2001 and only grudgingly agreed to the Bali Roadmap.⁵ However, some state governments (notably Califor-

3. The United Nations first called for collective action on climate change when it adopted the Framework Convention on Climate Change (UNFCCC) in 1994. After years of talks, in 1997, the Kyoto Protocol, which requires developed countries to reduce their greenhouse gas emissions below levels specified for each of them in the treaty, was adopted at the third Conference of the Parties to the UNFCCC in Japan. The Kyoto Protocol is scheduled to expire in 2012.

4. The Byrd-Hagel Resolution (S. Res. 98) stated: "Whereas the Senate strongly believes that the proposals under negotiation, because of the disparity of treatment between Annex I Parties and Developing Countries and the level of required emission reductions, could result in serious harm to the United States economy, including significant job loss, trade disadvantages, increased energy and consumer costs, or any combination thereof; and.... That it is the sense of the Senate that (1) the United States should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992, at negotiations in Kyoto in December 1997, or thereafter, which would—(A) mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or (B) would result in serious harm to the economy of the United States...." The full text of the resolution is available at <http://thomas.loc.gov>.

5. In a statement following the Bali conference, the White House expressed its dissatisfaction: "The United States does have serious concerns about other aspects of the Decision as we begin the negotiations.... Accordingly, for these negotiations to succeed, it is essential that the major developed and developing countries be prepared to negotiate commitments, consistent with their national circumstances, that will make a due contribution to the reduction of global emissions. A post-2012 arrangement will be effective only if it reflects such contributions" (quoted from the statement by White House Press Secretary Dana Perino on December 15,

nia) have enacted their own measures over the past six years, and several bills are now on the congressional agenda. Box 1.1 discusses core elements of current US climate policy.

While scientific and economic uncertainties are often cited in climate change debates, another enormous obstacle to collective action is the chasm between competing conceptual standards for setting greenhouse gas limits.⁶ The chasm would exist even if all countries agreed on target levels for global greenhouse gas concentrations—which, of course, they do not. Even if a target for global levels could be agreed upon, however, a debate would still rage: Should national limits be based on “per capita comparability” or “carbon price equivalency”? Per capita comparability rests on the argument that the United States, Europe, and Japan emitted billions of tons of CO₂ on their path to industrialization and that China, India, and Brazil should not now be denied the same route. An approach based on “historic emissions,” often advocated by developing countries arguing that targets should reflect cumulative emissions, draws on the same tenets. If per capita comparability or a historic emissions approach is to be the accepted standard, then developed countries would have to enforce tremendous reductions, while developing countries could vastly increase their greenhouse gas emissions (see table 1.1).

The argument for carbon price equivalency rests on the proposition that an additional billion tons of CO₂ does the same damage to the globe whether it comes from New York or New Delhi. If bygones are bygones, and the standard for collective action is to be carbon price equivalency, then a short list of major nations would need to impose very similar limits (see table 1.2, panel b). The explicit or implicit tax on greenhouse gas emissions, per ton of CO₂ equivalent (CO₂e) emissions, would then reach roughly the same high level in all major countries.⁷

Based on the debates surrounding the original Kyoto Protocol and the Bali Roadmap, US climate negotiators have harbored grave doubts that important developing countries (notably China and India) will accept carbon price equivalency as the working standard. In turn, the US Congress is very worried that, by taking the lead and imposing national

2007, www.whitehouse.gov [accessed on January 12, 2009]).

6. Climate change skepticism has diminished but not disappeared, as uncertainties still exist in climate change science and economic analysis. Michaels (2006) of the Cato Institute, for example, argues that many studies on climate change are seriously flawed and exaggerate the negative impact of global warming. Appendix A discusses four major uncertainties that are embedded in climate change debates.

7. An unmentioned but powerful undertone in the debate between per capita comparability and carbon price equivalency is the footprint of damage caused by climate change. All countries will be adversely affected, but some much more than others. As the science of climate change improves, and severe as opposed to modest losers are identified, that will influence the lineup between countries advocating one standard or the other.

Box 1.1 Core elements of current US climate policy

Ethanol subsidies. At both the federal and local levels, the United States has subsidized ethanol (mostly corn-based) and other biofuels. The federal government currently provides a 51 cent tax credit per gallon of ethanol, and the states provide a wide array of policies to support ethanol and other biofuel industries. Economists have criticized the cost of ethanol and biofuel production, and scientists have questioned the environmental benefits, especially when CO₂ emissions from cleared land are taken into account. Issues related to biofuels are discussed in appendix B.

Energy standards. In December 2007 President George W. Bush signed an energy bill establishing higher fuel economy standards for new cars and light trucks and other conservation measures. New vehicles are mandated to increase their fuel efficiency by 40 percent, setting a standard of an average of 35 miles per gallon (mpg) by 2020, instead of the prior target of 25 mpg.

State climate policy. States have enacted tougher state laws to regulate greenhouse gas emissions. California became an environmental pioneer among states when Governor Arnold Schwarzenegger signed the Global Warming Solution Act into law on September 26, 2007. This is the first statewide cap on greenhouse gas emissions, mandating a 25 percent cut by 2020. Despite the denial by the Environmental Protection Agency in December 2007 of California's petition to adopt its own CO₂ guidelines, California has pledged to go further in a green direction. Other states have engaged in cooperative efforts by initiating regional programs such as the Regional Greenhouse Gas Initiative, the Western Climate Initiative, and the Midwestern Greenhouse Gas Reduction Accord (the Midwest Accord).

limits on greenhouse gas emissions, affected US industries will suffer a severe competitive disadvantage in the global marketplace. This would happen if China, India, and other developing countries were to insist on a per capita comparability or an historic emissions standard and impose few if any limits on their own carbon emissions.⁸ To address this concern, several US climate bills introduced in the 110th Congress contain competitive provisions that, in one way or another, extend domestic greenhouse gas policies to US merchandise imports and foreign greenhouse gas control systems.

8. While China has pushed historic emissions or per capita comparability standards in international negotiations over the past several years, China has also aggressively pursued a combination of measures to control air, water, and soil pollution, using industrial and energy policies, among others. See Leggett, Logan, and Mackey (2008).