

Carbon Taxes May be Ineffective in Discouraging Emissions

Taxing carbon at the border could be protectionism

By Olivier Cattaneo *Created: Jul 5, 2010 Last Updated: Jul 5, 2010*



Green protectionism...a new tax aims to protect domestic industries against unfair competition by countries that fail to adopt measures to reduce emissions.

Of the many ways considered by Western governments to fight climate change, perhaps the most troublesome is raising a tariff wall in the name of clean environment.

One month after France and Italy called for implementation of a carbon tax at European borders, two U.S. senators unveiled the American Power Act, which would arm the United States with the same adjustment mechanism. In the event no global agreement on climate change is reached by 2019, the U.S. bill would phase in a border tax on imports from countries that have not taken action to limit emissions.

Enthusiasm of Sens. John Kerry and Joseph Lieberman to “create millions of jobs that cannot be shipped abroad” contrasts sharply with the cold reception for President Nicolas Sarkozy and Prime Minister Silvio Berlusconi’s proposal in Brussels.

For promoters, the tax aims to protect domestic industries against unfair competition by countries that fail to adopt measures to reduce emissions. Such bills also aim to prevent domestic efforts to reduce global emissions being undermined by production relocations and rising emissions elsewhere.

Protectionism

Opponents point to a risk that the tax could be used for protectionist purposes at the expense of environmental goals. Patrick Messerlin, of SciencesPo in Paris, has shown an almost perfect match between the European Commission’s tentative list of sectors exposed to a “significant risk of carbon leakage” and main users of antidumping safeguards and other trade remedies.

At the same time, experts regard only a few sectors listed as carbon-intensive emitters. Thus, the proposals signal that the priority of such legislation is not to reduce carbon emissions but rather allow protectionist rot to set in.

Not surprisingly, Sarkozy, Berlusconi and the U.S. senators claim that the adjustment mechanism will be consistent with commitments made at the World Trade Organization (WTO). India, on the other hand, has announced that it will raise a dispute in the WTO if the border adjustment tax targets its exports.

President José Manuel Barroso of the European Commission has called the trade problem the nuclear bomb of the climate-change debate. Rather than provide clear guidance, the WTO tiptoes through this minefield, highlighting the need for agreement first within the environmental community. Too much cannot be assumed, but the taxes will likely be prima facie (at first view) WTO-consistent, and the devil will be—as the 2009 U.S. Recovery Act demonstrated—in the details of implementation.

Costs Passed to Consumers

Beyond this controversy, carbon border taxes will likely fire debates and raise many questions for the U.S. Congress and European institutions. Chief among these may be why a new border tax makes sense, when for the last 60 years multilateral negotiations have aimed to reduce tariffs.

Costs will likely be passed on to consumers and importers: For each job saved from otherwise unfair competition, other jobs that rely on inexpensive imports will be lost. The history of tariffs shows that such measures can miss targets, or hit them, with higher costs for society as a whole.

For example, former U.S. President George Bush's 2002 measures to protect the steel industry, both tariffs and quotas, were estimated by the Institute of International Economics to cost U.S. consumers \$6.8 billion a year—or \$750,000 for each steel-industry job saved. One of the first industries likely to be targeted by a carbon tax, of course, is steel.

Some protectionism could be the price of leadership in the global clean-energy economy. But governments must ensure that consumers get the biggest environmental bang for their buck. This may not be easy to achieve. Border carbon taxes would be difficult and costly to implement, leaving the door open to leakages and ultimately resulting in a limited net effect on global carbon emissions.

Difficult to Calculate

Recent analysis by the World Bank, in particular by Michael Jensen and Paul Brenton, highlights challenges in calculating carbon content of the imports to be taxed. At least 14 methodologies for calculating carbon footprints of products are already operating or under development.

Established by either governments or businesses, particularly in the agri-food industry, these schemes vary in approach and methodology. Using select methodologies to measure the carbon emissions produced from transporting 1 metric ton of sugar 2,000 kilometers (1242.74 miles) by road in a 16-ton truck, a World Bank study found a range of results, with the highest emission figure three times as large as the lowest one.

The more complex the product, and the more countries are part of the value chain, the more difficult it is to calculate carbon content. Policymakers must consider whether to include the whole life cycle of a product in the analysis.

Traceability of products is far from perfect: For example, in refining bauxite into aluminum, the choice and quantity of other metals used for blending and methods of casting, rolling, and extruding the alloys contribute to the carbon content of the final product. Will the automobile exporter have access to this information and document it at the border? Will the vehicle be subject to a high tax because of the high energy-intensity of aluminum production, even if its own transformation activity was clean? How will the amounts paid throughout the life cycle of the products in countries imposing carbon taxes be discounted at the border of the downstream countries?

The calculation of the carbon footprint of products requires access to data on production and emissions that are either unavailable or too expensive to produce in the poorest countries. As a result, the poorest countries could become prime targets for carbon adjustment taxes, even if they utilize lower energy-intensive production techniques.

Perverse effects could add to unfairness: Companies sourcing from poor countries could move production to more polluting countries that provide adequate documentation. Border taxes could ultimately serve neither development nor environment goals.

Ineffective

The taxes may be ineffective in targeting the practices they aim to discourage. A 2008 study by the Peterson Institute for International Economics and the World Resources Institute revealed that large emerging economies, such as China, only export a low percentage of their production of high energy-intensive products, such as aluminum, steel, paper, cement or basic chemicals.

A simple reorganization of production, whereby only the goods using low-emission production techniques, such as hydro or nuclear energy, would be exported to the United States or Europe, would allow China to comply with emission limits and be exempt from border taxes, without any effect on global emissions. Thus, a border adjustment mechanism may risk carbon leakage, despite the fact that avoiding carbon leakage is the motivation.

Contrary to popular belief, some of the most competitive emerging economies also lead in clean technologies and emission-reduction efforts. According to the Alliance for Clean Technology Innovation, China is already the leading renewable-energy producer in the world; it is also the world's leading manufacturer of wind turbines, and second to Japan in the production of photovoltaic solar technology.

Together with Japan and China, India tops worldwide rankings for government R&D spending in clean technology, ahead of the United States and Europe. Brazil is the world leader in biofuels. Yet these countries may be the main targets for border carbon taxes.

Many denounce eco-skepticism, but eco-enthusiasm manipulated by interest groups to serve nonenvironmental purposes and the adoption of solutions that potentially have adverse effects on development, with little or no effect on global emissions, is equally dangerous. Segmenting markets and dividing the world is surely not the best solution to a global problem.

Olivier Cattaneo is research associate with the Groupe d'Economie Mondiale, SciencesPo, Paris. With permission from YaleGlobal Online. Copyright © 2010, Yale Center for the Study of Globalization, Yale University.