



By Robert N. Stavins

Worried About Competitiveness?

The potential impacts of proposed national climate policies on the competitiveness of industries is a major political issue. The ultimate answer to the question of how best to address such concerns is to bring all key countries — both the industrialized nations and the developing world's large, rapidly growing economies (China, India, Brazil, Korea, Mexico, South Africa, and Indonesia) — into a meaningful (post-Kyoto) international climate change agreement. But, for the most part, that long-term objective is outside of the reach of the domestic policy of any single nation, even the United States.

Imposing a price (cost) on carbon in the United States — whether through a cap-and-trade system or some other means — at a time when some countries (in the developing world) are not taking comparable actions raises grave concerns about negative impacts on the competitiveness of U.S. industry, particularly in energy-intensive, trade-sensitive sectors, which serves to heighten worries about possible job losses.

The environmental side of the same coin is “carbon leakage.” Imposing a cost on the production of carbon-intensive goods and services shifts comparative advantage in the production of those same goods and services in the direction of countries not taking on such costs. Also, reduced demand

in the United States for carbon-intensive fuels such as coal can be expected to reduce worldwide demand enough that the global price of coal would fall, thereby making it more attractive for use in countries that are not participating in a meaningful international climate agreement (or otherwise taking significant domestic climate actions).

Both routes can result in a shift of carbon-intensive production to countries without climate controls, and therefore an increase in their CO₂ emissions. This is carbon leakage, which reduces the environmental benefits of mitigating emissions and reduces cost-effectiveness of any actions (properly measured in terms of net changes in CO₂ atmospheric concentrations). Given that the United States, the European Union, and Japan are net importers of embodied CO₂, while China and India are net exporters, the environmental — as well as the economic — impacts of carbon leakage are a natural concern of lawmakers.

But despite the high levels of attention that international competitiveness therefore receives in debates about domestic climate policies in the United States, economic research has consistently found that the actual competitiveness impacts of proposed domestic climate policies would not — in quantitative terms — constitute a major economy-wide economic issue, partly because differences in other costs of production (including labor and energy costs, without accounting for carbon constraints) across countries swamp differences in costs due to environmental policies, including prospective climate policies.

On the other hand, this is a real issue for some sectors, in particular, energy-intensive industries subject to international competition, such as aluminum, cement, fossil fuels, glass, iron and steel, and paper. More importantly, it is in any event a major (economy-wide) political issue. So, it needs to

be addressed in any domestic climate policy which is to be both meaningful and politically pragmatic.

The approach most frequently proposed by policymakers and the approach utilized in the European Union in its Emission Trading Scheme is to give allowances for free to specific sectors and companies. This makes the receiving companies happy, but has no effect on their international competitiveness. Such a free grant of allowances is no different than cash; that is, a fixed subsidy. The allowances can be sold by the receiving companies, are as good as cash, and represent a lump-sum transfer from the government, not tied to carbon abatement efforts or production (and hence, in the language of economics, are infra-marginal subsidies rather than marginal incentives).

Since the subsidy has no effect on the company's marginal cost of production (its supply function), it has no effect on international competitiveness. The company will continue to find it as challenging as it did without the subsidy to produce cement, steel, or whatever at a price that can compete

with companies located in countries without climate policies (apart from liquidity effects, which are minor in most cases). And the domestic company will have the same incentives as previously to locate its next production facility in a country without a climate policy.

So free allocations can not really address international competitiveness impacts of a cap-and-trade system. But are there other ways that the impacts can be mitigated within a well-designed cap-and-trade system? The answer is yes, and that will be the topic of my next column.

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