

Pricing the carbon

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To get politicians to put a price on carbon, economists will have to accept some inefficiency

ECONOMISTS have long championed a price on carbon as the ideal way to limit the greenhouse-gas emissions that cause global warming. So has this newspaper: it first embraced the idea in 1989. Yet the bitter truth is that the world is nowhere near the sort of carbon-pricing regime that would keep greenhouse gases at tolerable levels. The negotiations under way in Paris this week will not yield one. Economists are used to being ignored, yet the contrast between academics' enthusiasm for a carbon price and the rest of the world's disinterest is striking.

Carbon prices tackle the problem of emissions head on. When people engage in a carbon-intensive activity, such as driving a car, they impose a cost on others, often without even realising it: the emissions produced when petrol is burned contribute to global warming. Because that cost is not built into the price of petrol, people buy more of it than they otherwise would, atmospheric carbon goes up, and the world bakes. A carbon price that added the missing cost to the price of petrol (and coal and every other carbon-generating activity) would give people an incentive to emit less. To impose a price, a government can choose one directly, and apply it in the form of a tax. Or it can decide the level of emissions it is prepared to tolerate and issue a corresponding amount of tradable permits to pollute. In that case, the cost of permits on the open market determines the price.

Such schemes work when designed well. In the 1990s America used emissions trading to reduce the amount of sulphur dioxide produced by coal-fired power plants. Between 1990 and 2004 SO₂ emissions dropped by 36% even as electricity generated by the affected plants rose by 25%. In 2008 British Columbia, a province in Canada, implemented a carbon tax close to an economist's ideal. At C\$30 (\$24) a tonne it is high relative to others that have been adopted. Relatively few sources of carbon (only about a quarter) are exempted from the tax. Emissions are down by 5-15% since its adoption. The tax does not seem to have harmed the provincial economy, and is more popular now than at its inception. The new left-leaning government in neighbouring Alberta is preparing to beef up its tax to mimic British Columbia's.

Admittedly, carbon-pricing schemes have often been poorly designed. Europe's Emissions Trading System, introduced in 2005, initially allowed national governments to choose their own emissions caps. Most opted for a high one to protect domestic industry, leading to the issuance of too many permits and thus to a crash in their value. They are currently hovering just above €8 (\$9) a tonne. Yet the bigger problem is that the vast majority of the world's emissions—nearly 80%, according to the World Bank—remain totally untaxed. Why?

Politics is the biggest obstacle. Opponents of a carbon price decry it as a job killer. Republicans in America are fond of noting that since very few activities involve no emissions, a carbon tax is a "tax on life". Since the cost of a carbon price falls most heavily on producers of dirtier forms of energy, they have a strong motive to lobby against it. The benefits of reducing warming, in contrast, are spread thinly, both geographically and temporally. Governments tend to appease green interests by showering renewable power with goodies rather than by socking it to big oil and electricity companies. Effective carbon-price regimes therefore tend to be limited to places with unusual politics: voters in British Columbia, for instance, are enthusiastic greens. In most of the world, raising the standard of living is a much higher priority.

There are nonetheless some ways to make carbon prices more politically palatable. First, the prospect of a steep carbon price will be less daunting if there are affordable, effective substitutes ready to be swapped in for coal plants and gas guzzlers. That requires innovation, which in turn suggests that more public money should be spent on energy research. Even some free-market types now call for such measures to help overcome the institutional advantages enjoyed by incumbent dirty technologies.

Second, the proceeds from carbon pricing should be used to compensate opponents of the policy. Such payouts reduce the economic efficiency of a carbon price, which would be maximised by using carbon-price revenues to cut other distorting taxes, such as those on income. But they may nonetheless be worth it if not having a carbon price would cause more economic damage—as would almost certainly be the case. Much as America's Department of Labour offsets the costs of free-trade agreements by providing special assistance to workers who lose their jobs when tariffs fall, governments could promise a cut of the carbon-tax revenue to those harmed by its introduction.

Non-barrier tariffs

Finally, it may even be worth considering carbon tariffs, which would be levied on imports according to the emissions involved in producing them, if they come from places which do not tax carbon. In theory, they would help prevent polluting manufacturers abroad from putting greener ones at home out of business. In practice, carbon tariffs would be enormously complicated to administer, and would not prevent all such "leakage" of dirty industry. Yet they might improve the politics of a carbon price all the same. Like carbon-based assistance to displaced workers, a credible promise to impose carbon tariffs would blunt domestic opposition to a carbon price. It should reduce the unfairness of some countries exploiting the conservation efforts of others. And it would give individual exporters to carbon-pricing countries an incentive to become greener, irrespective of whether their own government had adopted a carbon price.

As solutions go, these three can be criticised for lacking elegance and simplicity. But a functioning carbon price in the real world beats the textbook version every time.