A New Economics

A Price on Carbon

There's an old philosophical chestnut known as the "tragedy of the Commons." The story goes like this: There are a bunch of farmers, each with a herd of cows. But there's only one meadow, or Commons. Each farmer, acting in his own self-interest, puts as many of his cows as possible out to graze on the Commons, getting all the benefit, but bearing none of the cost. Since they all do the same thing, the Commons are soon destroyed by overgrazing. Everyone loses.

The lesson comes from a paradox (or conundrum)—actions that seem to be in our best interest are often the worst thing for us. Now think of the Commons as the environment, and all those grass-guzzling cows as CO_2 emissions. The free market, with every person acting in their own rational self-interest, can't by itself solve the global climate change problem. We need a new economics.

Coal plants emit carbon dioxide. Since the cost of those emissions doesn't directly impact the coal plant, why would the owner be motivated to turn it off? The cost is shared by everyone, and the owner gets all the benefit. Whether we're talking about a plant owner, an entire country or any group in between, without some kind of intervention, everyone will sit around waiting for everyone else to make the first move.

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The new economics says that emitting carbon can no longer be free—paying to emit the stuff is like paying to graze. There are a few proposals out there that suggest how to do this: a carbon tax, a concept called "cap-and-trade" and straight regulation. The final formula will probably involve a bit of each.

A carbon tax is just what it sounds like—a tax on carbon that's cranked up over time. The idea is to motivate consumers and industry alike to emit less. To ensure that the poorest among us can still afford to heat their homes—and to satisfy those who are ideologically opposed to big government and higher taxes—proponents of this model suggest redistributing the carbon tax dollars, making it revenue-neutral.

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The benefits? The tax is clear to everyone, and they apply to all emissions. The downside? It's hard to link the tax rate to a specified cut in emissions.

Cap-and-trade applies to big industry. The idea here is to put a ceiling on how much carbon a specific sector can emit, and gradually reduce that cap over time. Factories would each get "carbon credits"—the right to pollute a certain amount. Any factories that exceed their cap must buy extra credits from factories that come in beneath their cap. Everyone is motivated to reduce emissions, since they not only save money, but can actually *make* money in the process.

The benefits? There's none of the guesswork that's involved in a carbon tax system, since the price determinant for carbon can be directly linked to an emissions reduction target. And it unleashes the creative forces of the market as factories compete to find new ways to reduce emissions. The downside? Lots of bureaucracy.

Straight regulation is pretty simple: Just pass laws that require reductions in emissions, and enforce those laws with strong penalties and enforcement mechanisms.

The benefits? Again, they're pretty obvious. The downside? It would be very hard to enforce regulations in every economic sector, and there's little incentive for the creative entrepreneurial forces to come into play. If overused, straight regulation would probably result in a noticeable downsizing of the economy (if it worked at all). However, regulation will certainly play some role in specific targeted industries, activities and regions.

The hard part is not designing the new economy. The hard part will be to get every country to sign up. The key to carbon pricing is that it must be international and universal in scope. New international institutions will have to be built to set and enforce the price.

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That brings us right back to the tragedy of the Commons. Why would, say, China slap a new tax on industry, when it can just wait for everyone else to start? Why would the US? It's clear that leadership, diplomatic arm-twisting and outright coercion will be required. If, for example, one country doesn't sign up to a carbon pricing scheme, we'd see most of the high-carbon industry move there. And why not? It would be in any company's best interest to do so.

Finally, international tariffs linked to the carbon emissions embedded in products could be put in place. That's a kind of carbon tax. So we'll have to redesign the World Trade Organization (WTO), the General Agreement on Tariffs and Trade (GATT) and other international institutions that govern trade.

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It's going to be hard, but it can be done. The tools are there to build a new, carbon-light economy.