

The Cost of Living

ANDREW STEELE ASKS IF CARBON PRICING CAN MAKE MARKETS MORAL.

CLIMATE CHANGE could become the single greatest humanitarian crisis in our history, and the power to avert it is in all of our hands. Yet, apathy is endemic at every level from individuals to governments: no one is willing to take responsibility, in spite of the fact that it's all of our faults.

So what can we do? Wave after wave of environmental campaigns have failed to rally individuals to action, and governments and business are all playing responsibility hot-potato on the basis that doing so will work out better for their coffers in the long run—a notion ridiculed by the Stern Report, commissioned by the UK government to analyse the economics of climate change, which damningly told us that fighting global warming was up to twenty times cheaper, financially speaking, than ignoring it.

So, given that asking nicely has failed, is there a solution less draconian than widespread banning and heavy-handed environmental legislation? Well, the same economists making the grim predictions also have a possible solution: carbon pricing.

Carbon pricing comes in various different guises, but it centres on making people pay for the carbon dioxide they emit. We'll hit consumers, industry and governments in their wallets, where they have to listen; and, rather than appealing to the global conscience, which current levels of action on environmental issues would suggest is nonexistent, we channel global purchasing power, which is enormous. Making environmentally damaging activities more expensive than green alternatives could help us transform our amoral markets into instruments of ethical good. But, rather than confine this discussion to the abstract, incomprehensible global economy, let's start by bringing it home. What does it mean to the average citizen of

the UK? Grab the back of an envelope: it's calculation time.

Scenario 1: the average UK citizen emits around twelve tonnes of carbon dioxide equivalent during the course of a year, and the average wage is just shy of £24,000. If we play it safe and assume that they save a lot of money, pay a lot of tax and share their income with their family, we could knock that salary down to £12,000 per capita. So, as a crude estimate, carbon diox-

"We have to work out how much we are willing to spend to stop x deaths..."



ide costs an average person in the UK a quid per kilogram. Of course, they don't get an enormous blimp full of carbon dioxide for their trouble—they'll get whatever goods and services that carbon dioxide was used to produce, and the waste CO₂ will drift off into the atmosphere, accelerating global warming.

Scenario 2: if you plan well in advance, it's not too hard to fly to Australia and back for less than £700. This is about as far as you can fly from the UK, and the near-circumnavigation of the Earth will cost each passenger on the plane eight tonnes of carbon dioxide equivalent—two thirds as much as you normally use in a year. Only this time it costs over ten times less: a bargainacious eleven pence per kilo of carbon dioxide. There is simply no cheaper ticket to accelerating climate change than a budget air fare (except setting fire to an oil depot).

The disparity is at its most stark when you compare aviation—an industry which pays virtually no tax due to a fortress of international treaties—to other common economic activities. It's obvious that air travel, to even remotely pay its way pollution-wise, needs to be made a lot more expensive. Even worse, the entire UK economy needs greening to the point where we are emitting only a tonne or two per person per annum for it to be environmentally sustainable.

So, how would applying a carbon price help? Goods and services which take a lot of CO₂ to provide will cost more, and greener goods will be better value. This would mean that wind power, for example, currently about twice as expensive per unit of electricity as coal, would become a cheaper option for households and businesses because of the extra

price the coal power stations would have to pay for the right to emit carbon dioxide.

Science has a crucial rôle to play in any debate about carbon pricing. As a trading or taxation programme progresses, climate models and observations must be synergised into the economic ones to establish what a 'safe' level of carbon dioxide is, and therefore where to set the tax or the cap. Enforcement is also going to rely heavily on scientists, with satellite observations, air monitoring, and calculation being used to verify emitters' carbon accounting.

Setting this safe cap is more than just a scientific endeavour, though: it's also a moral one. The only moral case to be made for tackling climate change is its effect on sentient beings—preserving rainforests is only as necessary as the human (and possibly, to dodge a moral can of worms, animal) lives it will save or improve. The science tells us that the results of uncontrolled climate change will be overwhelmingly negative. The heat can kill directly, with soaring temperatures in summer being especially deadly for the young, old and infirm; increasingly severe meteorological natural disasters can wreak death and destruction upon homes and farmland; changing weather patterns will render traditional farming methods unviable as centuries-old water sources run dry; and disease, whose distribution is strongly temperature-dependent, can increase in range to cover new populations, whose natural immunity is much lower than peoples which have lived with a disease for generations.

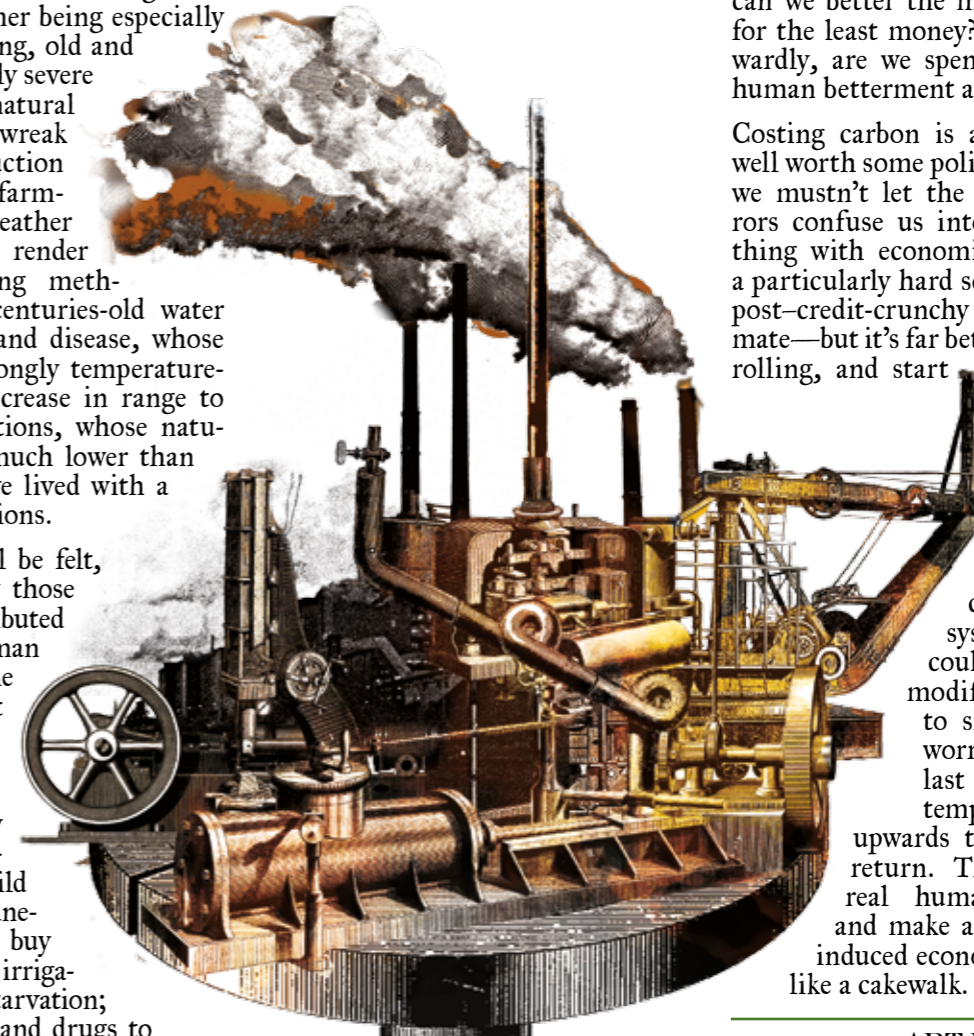
These effects will be felt, by bitter irony, by those who have contributed the least to human emissions: the World's poor. Not only that, but the poor are those least equipped to adapt, with no money to buy air conditioning units; build stronger, hurricane-proof buildings; buy GM crops or install irrigation to stave off starvation; or afford vaccines and drugs to prevent the spread of disease. A few

positive effects, like decreased deaths from cold in winter, will fail to redress the balance.

Deaths induced by global-warming are occurring even now—the World Health Organisation estimates that 150,000 people were killed by the consequences of climate change in the year 2000—and it's a figure which is doomed to rise with the global average temperature.

The uncomfortable corner that carbon trading backs us into is that we end up pricing human life and welfare. A tonne of emitted carbon dioxide results in a minuscule amount of extra climate change and in turn shifts the probability and intensity of humani-

"...which requires stopping y degrees of global warming, by not emitting z tonnes of carbon dioxide."



tarian consequences up a notch. We have to work out how much we are willing to spend to stop x amount of carbon dioxide being emitted, y degrees of global warming and z deaths. This morally awkward calculation is made worse by the uncertainties in the climate system and the even larger unknowns in the human systems it will affect. How much is mitigating the increased possibility of a death in a developing country in fifty years worth?

A carbon price will decrease spending power, diverting more of the economy's resources to expensive low-carbon alternatives because their high-carbon precursors are now even pricier. How much as a society we can afford to spend on increasing human welfare by reducing climate change must be balanced by how much this means we won't be spending to improve quality of life in other areas. Is it better to spend a pound on carbon mitigation, or put a pound towards building a well in an African village? Should a dollar be spent researching electric cars or cures for cancer? How can we better the most human lives for the least money? And, most awkwardly, are we spending enough on human betterment at all?

Costing carbon is a tricky business well worth some political debate—but we mustn't let the smoke and mirrors confuse us into inaction. Anything with economic uncertainty is a particularly hard sell in the current post-credit-crunchy economic climate—but it's far better to set the ball rolling, and start experimenting with a trading scheme before it's too late for a carbon price to save us. Better to roll out an imperfect carbon trading system (which we could, of course, modify later) than to sit on our hands worrying about every last detail whilst the temperature drifts upwards to a point of no return. That would be a real humanitarian crisis, and make a carbon-trading-induced economic wobble look like a cakewalk.

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