

# Carbon – Tax, Rationing or Cap?

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## Life without Bounds

We often think it would be nice to live in a world without restraints. To be able to spend money freely, but without earning it, or being given it. To take things we want, but not have to give up things other people want.

We usually learn quite young that the world does not work this way. That, quite often, if we take something that deprives other people of it, then they will want to be rewarded for their sacrifice. It is not an easy lesson, and, even as adults, we often work very hard to beat the rules, to overcome constraints, get what we want without taking it from somebody else. Indeed, necessity is the mother of invention, and invention has rewarded us well.

But always, there are limits. We can only beat the rules so far, and then some other rules get in the way. Usually, as individuals, we choose our own limits, we choose to restrain ourselves, in other words, we behave ethically. For many of us, this restraint brings its own rewards.

As societies, we have often worked within limits, choosing norms and cultural habits that keep things within perceived bounds. When we do, we often find that, like Mr Micawber, happiness comes when outgoings are less than income<sup>1</sup>. Sometimes our internal policing of these cultural habits can get unfair and uncivilised, but, more recently, our culture seems unwilling to recognise bounds, and, even when we do, we are finding it painful learning how to go about working within them.

So it is hard to develop and agree policies to ensure we operate within limits, even when, as now, breaking the limits brings Climate Change that is a threat to us all.

Necessity, however, has once again forced invention this time an economic instrument – Cap and Trade – which, if we learn how to operate it, holds out hope for us all. So let us start with the Cap.

## Gaia's Ration

The global ration or Cap that we need in response to Climate Change is not a policy decision or choice. It is imposed by Gaia, the earth system, and is a limit we, mankind, must live within if we, as a civilisation, perhaps even as a species, are to survive. We have no choice about the global rationing (although I prefer the term Cap). Our only choices are about how to divvy it up.

It is true that choosing the Cap we work to is a political choice. Whether we choose 350, 450 or 550 ppmCO<sub>2</sub> depends upon how much Climate Change we currently and collectively consider acceptable. We can, if we wish, define the Cap in terms of acceptable temperature change, and leave it to science to work out what this means by way of emissions Cap, but this still gives very narrow choice. The choice we make impacts everybody and every living thing. It is a shared choice – there are no ghettos of low CO<sub>2</sub>. We can, and are, choosing to aspire to a current Cap (550) that appears to offer little more than bare survival. But the Cap can come down.

What we can say with certainty about the Cap is that future generations (and probably us when we are older and wiser) will have wished us to have chosen and implemented a lower one. I am sure we would wish our elders to have been less extravagant with emissions, but they can at least claim the excuse of ignorance. Those to whom we become elders will not be able to offer us that excuse. So future generations will, beyond question, wish us to have chosen a lower Cap rather than our current convenience and our extravagance with fossil

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<sup>1</sup> See [http://www.ellopos.net/dickens/copper\\_micawber2.html](http://www.ellopos.net/dickens/copper_micawber2.html) for the actual text

fuels. Indeed future historians, if there are any, will undoubtedly condemn our society, our leaders and us for failing to deal with this threat to survival and loss of well being.

We do, as a society, have choices about the policies we adopt to meet the Cap, and many wrongly see this as a choice between taxes or Cap and Trade. So let us consider the purpose of these two economic instruments.

## **Taxes**

The primary purpose of taxes is to raise money for services to the taxed community. For many services, such as roads, education, health care, clean air, defence, etc. etc. the cheapest and most cost effective way to provide the services is to pay for it through taxes. So taxes make the society (and the people in it) richer. If the services were charged for then parasitic transaction costs absorb resources and create overheads that devalue the service, and make society poorer. We see this in, for example, the US healthcare system, where transaction costs absorb a huge proportion of the payments people make for healthcare.

Taxes are to raise money and we aim to do it fairly. Of course, taxes have other incidental consequences, the greatest of which are distributional effects. Do they help to distribute wealth more evenly, or do they make the rich richer and the poor poorer? Perhaps the greatest single feature of the European Social Model is that taxes are explicitly intended to have distributional effects, evening the wealth of members of society, as well as raise money. This motive is less explicit in the US model.

The secondary effects are hard to anticipate, although we are getting better at it. Politicians work hard to avoid placing burdens on any specific group of people, as such groups, once they identify themselves, become a focus for opposition. In the case of the UK fuel tax, for example, this placed particularly heavy burdens on truckers, farmers, and small traders who needed vehicles to do their business. Individually, they could do little to reduce their fuel use, but the group that really needed to have their behaviour changed – like SUV buyers – were almost unaffected. So, as an instrument to change behaviour in specific ways, fuel taxes have proved a dismal failure.

Targeting something as specific as a ceiling on CO2 emissions means that we have to anticipate and plan for third order effects, far removed from the primary purpose of raising revenue (which taxes are good at). We have to plan and manage distributional effects and then work on our reduced emissions target. Bureaucrats and legislators do not have enough ingenuity, or motive, to outthink and anticipate the cunning of the very large number of the taxed, each of whom will have strong motivations to seek ways to reoptimise their economic life in the light of the taxes. Third order effects are unlikely to survive such ingenuity unscathed.

So taxes to meet a defined Cap on emissions is hard to conceive, certain to need a lot of tinkering, and unlikely to achieve the desired outcome. It is not their purpose.

## **Cap & Trade**

Cap and Trade, or Emissions reductions Trading, on the other hand, is an economic instrument specifically designed to meet constraints – to achieve a Cap. Indeed, it is the only economic instrument so far invented for this purpose. Emissions reductions Trading with an absolute Cap has been shown, in theory and in practice, to offer the most cost effective way of achieving the desired outcome. All alternatives, including taxation, have been shown to be less effective, more expensive, and less fair. With a Cap & Trade scheme our ingenuity can be directed towards reducing our emissions (delivering reductions that we can trade with profit), rather than trying to increase our share at someone else's cost.

Cap and Trade, like taxes, has secondary effects, and, like taxes, these are mainly distributional. How we choose to divvy up a Cap among participants, whether these are Nation States, organisations, or people, makes a lot of difference to the wealth of those among whom the cap is distributed. If we hand out parts of the Cap to the electricity generators, this makes them richer, at least for a while, and makes the rest of us poorer, as the electricity companies still charge us for the CO2 we use. This is a real, and unattractive,

distributional effect of the current EU Emissions Trading Scheme allocation approach, but does not alter the fact that the cost overall of achieving the Cap will be the lowest possible.

We do need to make sure that the distributional effects of Cap and Trade are fair, and seen to be fair, and this can be done though fair divvying up or allocation of the Cap. The divvying up of the Cap is a political decision, but, in economic terms, is a zero sum exercise. That is, the net welfare of the society is unchanged by what we do.

Acceptability to people, however, is changed by our allocations. We need an allocation scheme that is fair to all, seen to be fair, and operates to rules and processes that the (hopefully overwhelming) majority of participants can accept as fair. For me, and for most people, an equal allocation per person seems to be a basic approach from which to start, as we all share the air. The alternative approaches imply taking by force or coercion or by claiming some sort of historical right. This last grandfathering approach may be from where we start, but it is not where anybody (except the minority who benefit) will wish to end up.

As we understand Cap and Trade better, and tackle the secondary distributional issues, there may be some third order effects that we could choose to use for some other fiscal effect, perhaps even raising money. But that is not their purpose.

## The Priority

At this third order level, therefore, there may be some aspects that are common to both taxation and Cap and Trade. We should be mindful of these possible effects, and do our best to ensure they are benign. But they are of so little relevance to the primary purpose of meeting Gaia's Cap that debating them is unproductive. We should not let such debate distract us from our primary purpose of defining and adopting policies that have a realistic chance of working.

If we have to adjust the taxation rules and policies as often as we find they are not achieving the emissions reductions we seek, we will get inefficient investment, wasted debate, resentment and still no Cap. The policies will be seen as ineffectual, and the whole objective will be discredited, leading to a sort of fatalism in the face of catastrophic events that will doom us all.

Cap and Trade, with a science based Cap, and a clear, fair, per person allocation as soon as politically possible looks more likely to succeed than any other policy yet devised.

If we choose to distribute Gaia's emissions Cap down to the individual, this gives the people who are best able to make decisions the information they need to make the best trade-offs for them, yet without risking our collective need. As a policy, it is hard to beat.

So remember our purpose, stick to the Cap, and divvy it up as fairly as we can.

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