

Panel: How the CO₂ economy would work in practice

By tying the use of natural resources to a limited CO₂ budget, the CO₂ economy would come with a built-in operational and verifiable standard of sustainability. Our use of resources and life support systems would be determined by real natural resources that can be used on a sustainable basis rather than by our earning capacity or by the amount of capital we can mobilise at any given moment. A resources-based budget activates a feedback and control mechanism that enables us to react directly to any indications of scarcity or to signs of stress which, if left uncontrolled, might take on a massive and life-threatening form.

The budget allocated to each individual would be stored on the magnetic strip of a charge card or on the chip of a smart card. Laser scanners in the supermarket or at the petrol stations would read one bar code for the price and one for CO₂ content from the price label, and the card terminal would charge the card accordingly. A new chip card charged with the new reduced CO₂ allowance would be issued every year. If someone used up their allowance before the year was over they would have the choice of earning more by carrying out environmental restoration such as planting trees, taking care of threatened biotopes or re-naturalising the beds of rivers and streams. Alternatively, they would be able to buy extra credits from people who did not need all theirs. Naturally, as each person's CO₂ quota shrinks, the price of emission rights will go up steeply.

1 - Separating needs from wants

In a CO₂-bounded economy, the distinction between survival and luxury goods would emerge as a matter of course and of personal choice as opposed to a distinction decreed by an authority.

2 - Long-term planning and structural change

Bringing in a CO₂ economy over a time span of 40 years would provide industry with the security of long-term planning it often demands. It would enable individuals to change their personal lifestyles, their energy consumption, the way they use their cars, their culinary and leisure habits.

3 - Industry, the world of work, the world we live in would be radically changed by re-defining what is economical or cost-effective.

Whereas conventional cost-effectiveness is expressed as the ratio of money revenues over money invested or spent, *real* cost effectiveness is achieved only when needs are satisfied using the minimum amount of real resources such as labour, raw material, syntropy potential.

4 - The effect on the character and the meaning of work, on workplaces and unemployment.

The focus would shift from producing exchange value for sale on the market, i.e. for money - to the production of useful goods. There would be little point in producing exchange value money because only very few useful things can now be purchased with it. It will make more sense to produce utility values for yourself or your immediate environment, such as

- to grow food - fruit, vegetables, potatoes - in the garden or an allotment
- to repair bicycles and toys instead of buying new ones
- to make your own furniture and household articles
- to sew, repair and alter your clothes. In other words, do all those things that are completely pointless under the current definition of what is economic (cf. point 3)
- to create a LETS system or some other type of mutual neighbourhood support using vouchers for real goods and services based on an exchange system.

5 - A new standard for technical best performance

In a society which functions on a limited resource budget, the idea of best performance will be applied to the much higher level of the needs to be satisfied, rather than to the level of the product (heating, car, house, TV set, long-distance flight). The aim is to find the method that uses as little material and energy as possible in meeting such needs as

- ◆ comfortable room temperature
- ◆ mobility
- ◆ protection, privacy, peace and security
- ◆ entertainment and leisure pursuits.

For engineers and designers, the higher degree of efficiency has always been something like a Holy Grail. Nothing could be worse than a steam engine that needs nearly as much coal as it extracts from the mine. But corporate calculations soon degraded their noble striving towards energy and material efficiency to mere cost efficiency.

6 - A solar society

A CO₂-bounded economy would allow all types of renewable forms of energy to develop and find the niche they are best suited for:

- n solar collectors on the roofs and walls of buildings for interior heating and hot water
- n photovoltaic panels for generating electricity also on walls and roofs
- n wind power stations
- n bio-gas plants producing fuel for cars with gas-powered engines and for supplementing the supply of electricity and heating from direct solar energy.
- n cars powered by fuel cells running on hydrogen produced with electricity generated by windmills.
- n small scale co-generation plants based on bio-gas and plant oil to supplement direct solar power during periods of little sunlight.

7 - Foreign trade, local and regional economy

The limitation represented by a CO₂ allocation would add the full cost of transport to imported products - the further they have to travel, the greater the CO₂ 'cost'. It would not be long before this affected the massive flow of goods between countries and continents. World trade has multiplied by a factor of ten since 1945, and it is not impossible to imagine it shrinking to 1945 levels or further.

A resources-based currency would, over the next few decades, bring this international division of labour back to manageable levels. Charging transport costs in full (in CO₂) could be the first step towards making many of today's imports and exports economically non-viable. Taking environmental pollution into account at the production stage would cause products that are able to compete in the market solely because they are produced with total disregard to ecological conditions or by over-exploitation of natural resources to drop out of the import statistics. A reduction both of global trade and of the extreme division of labour, both of which have resulted in an unbearable volume of air and road transport, would bring economic activity back to the local and regional level. As for imports from far-away countries, people would tend to apply their limited CO₂-budget to a few luxury goods where, due to their small bulk transport costs are minimal, like tea, coffee, spices and silk - i.e. the exotic products which were imported at the beginning of long-distance trade.

8 - CO₂ budget and CO₂ account as a means of information

Even short of its introduction as a parallel currency, a simple CO₂ index summarising the environmental impact of products and services would serve as a useful guide and incentive. In regard to motivation and behaviour, a CO₂ quota would have the advantage of saving the individual from all the negative emotions that environmentally conscious people experience in all their lifestyle and consumer choices. No more uncertainty, guilt, resignation, no more feeling like a fool, fearing that whatever you do will not be enough. If

marketed properly, the CO₂ quota could make us feel contented about doing the right thing, saving the planet for our children, not taking more than is our due, to be united in something worthwhile, to feel that we are all in the same boat: none of us want it to sink, so we all have to limit our baggage!

9 - CO₂ currency as a pure means of exchange

The CO₂ budget would be a testing ground for a currency which is designed to be a pure means of exchange - uncontaminated by the runaway effects of money-as-capital, i.e. money for making money for making money.



This article is from the first Feasta Review, a 204-page large format book. Copies of the book are available for £15 from [Green Books](#).