



Climate Change Policy: From Negligence to Implementing a Carbon Tax

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Summary

With the UK leaving the EU in 2020, its policies to combat climate change currently remain undecided. One policy discussed in this report is a carbon tax. This report finds that implementation of a carbon tax will require a favourable political climate, public attention and an appropriate cost, with a starting price of £40 per tonne of CO₂ emitted, gradually rising to £100-125/tCO₂ (1). Also, to be politically acceptable, there must also be 'revenue recycling', with some of the proceeds of the carbon tax being redirected to public services (2,3).

Key words

Climate change, carbon tax, revenue recycling

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Introduction

Since the industrial revolution, humankind has made unprecedented development, with health, technologies and economies improving. The lives of people have improved immeasurably. Yet, we have exploited the environment to a breaking point, and urgent action is required to combat the worsening situation. With the United Kingdom (UK) leaving the European Union (EU), one such policy being discussed is implementation of a carbon tax. This report will address the evidence on climate change; why it did not reach the policy agenda earlier; and the implementation of a carbon tax policy to combat the deleterious effects of climate change.

History

Currently, the UK uses the EU's Emissions Trading System (ETS) system which is a 'cap and trade' system, where companies receive or buy emission allowances, which are tradable (4). All of one's emissions must be covered by this allowance and exceeding them incurs heavy fines (4). The UK has also maintained a carbon price floor since 2013, which producers were required to pay if the EU ETS carbon price fell below this threshold (5). However, with Brexit, the UK may need to revisit its carbon emissions strategy because the ETS may no longer be applicable.

The Evidence Base



The scientific consensus is that climate change is real and man-made, with around 97% of scientists holding this view. Data on the impact of climate change is provided by the Intergovernmental Panel on Climate Change (IPCC), which consists of working groups I, II and III who assess the physical

scientific basis for climate change, the impact of climate change to natural systems and how to mitigate the effects of climate change respectively. The findings of their most recent report, the 5th Assessment Report, are reported below (6):

- Average global temperatures have risen and humans are “extremely likely” to have caused this rise.
- Greenhouse gas emissions (nitrous oxide, carbon dioxide and methane) have risen since pre-industrial times, with the majority being due to humans.
- Global sea levels have risen and polar ice sheets have melted.
- There have and will be greater risks of extreme weather events due to global warming.
- Rising temperatures and extreme weather can and have caused crop failures.
- Rising temperatures will further threaten endangered species and ecosystems.

Policymakers aim to prevent global temperatures from rising by more than 2°C compared to pre-industrial figures because above this temperature, scientists feel that there will be irreparable damage to the planet (7).

Failure to Make the Policy Agenda

1) McDonalds meets Misinformation – the role of democracy, capitalism and profit maximisation

According to Forbes, six oil companies are in the largest 25 companies in the world (8). Clearly, they have large financial interests in the climate change agenda considering that the fossil fuel industry is a large driver of anthropogenic (man-made) climate change. These companies worry that tougher environmental regulation would affect their bottom line. In response, they have lobbied governments, paying US Congressional climate change deniers US\$1.87million between 2007 and 2015.

Similar to the tobacco industry, oil and gas producers have attempted to sow seeds of doubt about the deleterious effects of their activities upon the planet through the funding of research and misinformation. ExxonMobil funded 39 studies which “misrepresented the science of climate change” in 2005 (9) and funded the production of Sceptics’ Handbook, a pamphlet denying man-made climate change, which altered the evidence base and made some people sceptical about climate change. It also shifted the Overton Window, which defines the spectrum of acceptability of public policies, away from climate change action, allowing looser environmental regulations to continue; therefore, oil and gas companies could continue to operate freely and maximise their profits. Also, the economic capital of energy giants allows them to threaten to move their operations overseas if their demands are unmet and has allowed them to spend \$1billion since the Paris Agreement on lobbying (10).

2) The media and its framing of climate change:

Yet, the framing of climate change has been critical to the inaction regarding it (11). Firstly, it has become a partisan issue, preventing action. The left has largely wanted to tackle climate change, whereas the right has either displayed ignorance or an unwillingness to tackle climate change. In the UK, the partisan divide has impeded political progress, with Labour supporters 56% more likely to be extremely or very worried about climate change compared to Conservative voters (12). To this end, the role of the media, who are able to shape the thoughts and preferences of the public to dictate the political agenda, has been critical in framing climate change as a partisan issue (11). Overall, this political polarisation of climate change has prevented action to mitigate or adapt to its effects.

3) The People:

Despite scientific consensus over anthropogenic climate change, there are sceptics and deniers.



According to Schwartz (13), climate change sceptics and deniers display “wilful ignorance” of modern scientific evidence. They often dislike the economic and political implications of climate change, hence they choose to not believe in it (14). For these people, tackling climate change does not warrant the politico-economic trade off.

The Policy Agenda

Shaping the Policy Agenda

Firstly, for climate change action to be taken, it must be on the policy agenda. Kingdon states that implementation of policies requires action within windows of opportunity, which require (15):

- focusing events which attract public attention towards the issue.
- a favourable political climate.
- a solution to the problem.

Producing a Favourable Political Climate

The first challenge must be to convince the population of the deleterious effects of climate change and that action must be undertaken. Yet, considering the vested interests of corporations and the apathy of some individuals towards the subject, there may be some people who will be unchanging in their beliefs. However, 46% of Europeans did not feel that “climate change is a very serious problem” – if some of these people are open to changing their opinion, it will add further weight to the masses of people demanding further action (16). Therefore, those who understand the importance of climate change must undertake concerted action to highlight the issue to policymakers.

Ultimately, politicians are responsive to voters, hence greater public support for an issue will encourage political action. However, the political climate must also be appropriate for action. Considering UK Prime Minister Johnson’s previous statements labelling Extinction Rebellion climate change activists as “uncooperative crusties” and his previously sceptical views over anthropogenic climate change, this may prove difficult.

Also, the power of focusing events must be harnessed - including sudden, adverse weather events - which are more likely due to climate change, and the publicity gained by activists including Greta Thunberg and Extinction Rebellion (6,7,15,17).

A Potential Solution – A Carbon Tax

Having placed climate change action high up on the political agenda, a solution is required. One such response is a carbon tax, which taxes greenhouse gases emitted. It can be applied to manufacturing, power plants, transport and the household energy industries. Burning fossil fuels is a negative externality, with the societal costs of environmental damage outweighing the price paid by consumers and producers. Therefore, there is often overconsumption of these resources above what is societally optimal, hence a carbon tax should reduce the amount of greenhouse gas emitted by raising their costs.

The UK government had previously suggested a price of GB£16 per tonne of CO₂ produced if there had been a no-deal Brexit (18). However, this figure appears to be too low – Burke, Byrnes and Fankhauser suggest that to allow the UK to reach its net-zero emissions target by 2050, a carbon tax would need to cost around £40/tCO₂ in most sectors and rise to £100-125/tCO₂ by 2050 (1). It may reduce greenhouse gas emissions through several mechanisms, such as by: encouraging the energy industry to switch to cleaner forms of energy, with similar measures reducing UK coal usage by 91% since 1990 (19); reducing the amount of energy used by industries; and promoting efficient energy usage.

Political Implications of a Carbon Tax

Practically, a carbon tax would be relatively simple to implement in the UK, with fuel-use currently being monitored and reported in the EU ETS system (5,20). However, implementing new taxes



remains politically challenging, with the *Gilets Jaunes* movement arising in opposition to fuel price increases and Australia having repealed their carbon tax (2,5). Despite this, a carbon tax would generate £20 billion in annual revenue for the government (1). If recycled appropriately, these revenues would increase the willingness of the public to accept this new tax, with Swedish citizens more likely to accept a carbon tax if accompanied by income tax cuts (2,3).

Practical Implementation of a Carbon Tax

- To be effective at reaching a net-zero emissions target by 2050, a carbon tax must be set at around £40/tCO₂ in most sectors and rise to £100-125/tCO₂ by 2050 (1).
- To be politically acceptable, the carbon tax must increase gradually over time, allowing people and companies to alter their energy usage patterns, such as by switching to greener energy sources or increasing their energy efficiency (21).
- To be politically acceptable, a carbon tax must recycle revenue back into the economy (2,3,5). It is also essential that policymakers explain how these resources are being used to ensure public acceptability of the carbon tax – for example, these resources could be used to reduce income taxes, provide a carbon dividend or subsidise green technologies (21).

Drawbacks of a Carbon Tax

However, some people argue that implementation of a carbon tax will lead to negative economic and environmental consequences, with firms moving abroad to nations with less strict environmental regulations (20,22). However, these effects are likely to be modest, with the majority of greenhouse gas emissions in developed countries produced by nontraded sectors, including electricity, transport and construction, which cannot be outsourced overseas to nations with looser environmental regulations (20,22).

Also, a carbon tax may be regressive, harming the poorest in society, who spend a greater proportion of their income on energy and fuel (21). Appropriate recycling of revenue to the poorest in society may overcome this challenge (21).

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