BLOG POST

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Towards a Decarbonised World: The What and Why of Carbon Trading

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Carbon trading is a market-based instrument designed to reduce greenhouse gas emissions by creating financial incentives to do so. It occurs within various carbon trading markets, usually operating within regulated emission trading schemes (ETSs) such as the EU Emissions Trading Scheme (EU ETS). ETSs can be both voluntary or mandatory and differ in sectoral and temporal coverage, as well as varying in their emission targets. All ETSs share a common premise - that “emission reductions should take place where the cost of reduction is lowest, thus lowering the overall costs of combating climate change” (Perdan, 2011). Carbon trading utilises a ‘cap and trade’ model. Within this model, governments or intergovernmental bodies set legal limits on carbon dioxide emissions and grant a fixed number of permits to emitters. Each permit is equivalent to one tonne of carbon dioxide equivalent (CO_2e). Each emitter must retain sufficient permits to account for the emissions they produced. If emitters were to exceed their fixed permits, they could face financial penalties from the ETS’ governing body - whether that be government or transnational, such as the EU.

If emitters are producing more pollution than their fixed permits grant, they may look to purchase offset credits. Offset credits are a supplementary source of ‘permits to pollute’ which can be purchased from countries and companies. These are external to the cap and not constrained by an ETS. As per the name, purchasing offset credits will ‘offset’ the excess emissions produced by an emitter through the purchasing of unused permits to account for these excess emissions. Companies and countries who reduce their emissions can therefore sell their excess carbon permits to other participants whose emissions have increased, thereby commoditising carbon and creating a market. Carbon trading is thus commonly utilised by countries to meet their domestic emission reduction targets through the purchasing of credits from other countries that have exceeded their targets (Hepburn, 2007). The commoditization of carbon has formed a lucrative global market valued at £652 million in 2021, according to Refintiv analysts (Anders, 2022).

It is evident that carbon trading presents a popular regulatory ‘solution’ to rising greenhouse gas emissions and human induced-climate change (Spash, 2010). Many countries and companies are now pressured by carbon reduction initiatives, such as government legislations or transnational agreements, for example the Paris Agreement. Carbon trading sets a simple goal: to make it cheaper for companies and governments to meet emission reduction targets (Gilbertson 2009). By placing limits on fixed permits and making emission reduction targets cheaper to achieve, carbon trading can disincentivise making investments in and reliance upon fossil fuels. Gradually lowering fixed permits and emission caps is vital; in this way, the global

fossil fuel addiction can thus be slowly phased out. Conversely, investments in low carbon sources of energy such as wind power and photovoltaics can be promoted. As these industries emit little to no carbon, governments and companies are far less limited by fixed permits and emission gaps in these areas. They can consequently exercise greater autonomy in their investment strategies and energy production, thereby incentivising low carbon investment. Finally, emission caps and fixed permits force companies and governments to employ efficient energy practices and reduce carbon dioxide production. These carbon trading mechanisms promote the rapid enforcement of the most cost-effective, efficient carbon reduction methods.

Ultimately, it is important to note that carbon trading is far from a ‘quick fix’ for reducing greenhouse gas emissions. Nevertheless, it attempts to reduce emissions by implementing caps and fixed permits to divest from polluting industries and direct investments into low-carbon industrial methods. But is carbon trading actually successful in meeting its aim of reducing greenhouse gas emissions? This is a question that will be explored in a later blog post - stay tuned.

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