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Proponents of cap and trade increasingly seek to create a global carbon market under the false reasoning that doing so will achieve improved economic efficiency and better emissions reductions than individual markets alone, because carbon dioxide (CO₂) is spread globally throughout our atmosphere.

Since no new international agreement, like the Kyoto Protocol, has materialised after the first Kyoto agreement ran out in 2012, the focus has now shifted towards creating a global carbon market.¹ Doing so requires linking existing bottom-up, regional and sub-national carbon markets in places like California, China, the European Union, Quebec and elsewhere.

While promoted as a way to reduce carbon emissions, the main drive behind linking is economic efficiency and cost reduction. Focusing on economic concerns downplays the real priority of reducing emissions.

Unfortunately, companies will continue to pollute as long as it is cheaper to buy carbon credits than to make the investments needed to reduce emissions directly. And, if companies can create markets and link them outside of regulations that would actually lead to meaningful emissions reductions, they will do that. Carbon markets are not about emissions reductions — they are about finding the cheapest way to keep on polluting.

Background

Cap and trade markets are not the solution to emissions reductions that they pretend to be. Instead of requiring polluters to stop or significantly reduce emissions without exceptions, cap and trade allows polluters to *pay* to keep on polluting and maintains the status quo.

This is made worse as numerous examples of fraud, corruption, oversupply of emissions credits and lack of enforcement of the cap continue to plague these markets.² These problems have been so systemic that the International Criminal Police Organization (INTERPOL) is investigating carbon trading crimes and published an extensive report on this in June 2013.³ As a result of these myriad problems, permanent reductions of greenhouse gas emissions may or may not be achieved. Cap and trade markets are a pay-to-pollute scheme, not a legitimate solution to emissions reductions and climate change.

Current and potential linked CO, markets

- California
- Quebec
- China Pilot Programs
- European Union Emissions Trading System
- Regional Greenhouse Gas Initiative

With this in mind, the idea of linking carbon markets is beyond counterintuitive; combining several faulty markets does not make one functional market. Linking carbon markets poses many problems, not least of which is the significant impact that this will have on democratic processes and domestic control of carbon markets. Oversight and regulation are required to make emissions reductions a priority over economic efficiency.

Moreover, linking means that volatility and liability from one market becomes shared across all linked markets.⁴ The risks of leakage, increased emissions and minimal emissions reductions become serious problems when linking carbon markets as well.

In January 2014, California and Quebec signed a bilateral agreement linking their carbon markets. Farticipants in California's market can now buy credits from Quebec's market, and vice versa. Other markets also have expressed interest in linking, including the Regional Greenhouse Gas Initiative (RGGI), the European Union Emissions Trading System (EU ETS), pilot projects in China and several others around the world.

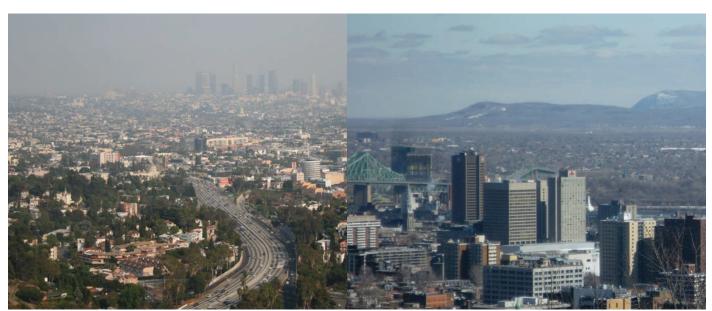
The fact that carbon dioxide is a globally pervasive pollutant does not mean that the only solution to reducing it lies in a global carbon market. Significant emissions reductions from cap and trade have yet to be seen. In addition, the largest carbon market, the EU ETS, is currently on life support after the price of carbon allowances collapsed to €2.46 per ton of CO_2 in April 2013, from a high of €29.69 per ton of CO_2 in July 2008. Because of this collapse, the European Union has had to intervene and will withhold 900 million emissions permits in hopes of saving the market and propping up the price of emissions permits.

How Does Linking Work and Why Do Proponents Favour It?

In a direct, bilateral link between two carbon markets (market A and market B, for example), allowances or credits from market A can be used to meet the reduction targets in market B, and vice versa. Links can also be unilateral, which is a one-way link where market A can use allowances from market B, but market B cannot use allowances from market A.9 Multilateral links are a possibility as well, wherein more than two markets become linked and share credits.¹⁰

In addition to direct linkages, indirect links can occur. This typically happens by linking two carbon markets via a third market, such as an offset market for the Clean Development Mechanism (CDM).¹¹ "If neither system recognizes the other's allowances, two systems can become indirectly linked through direct links with a common third system."¹²

However, offset markets like the CDM have become notorious for fraud, corruption, no emissions reductions, increased emissions and several other significant problems.¹³ As a



Smog hangs over Los Angeles, California and Montreal, Quebec. California and Quebec just linked their carbon markets in January 2014. Photo Source: (LEFT) CC-BY-SA © MASSIMO CATARINELLA; (RIGHT) CC-BY © JUSTIN QUINTAL

result, any linkage with the CDM or another offset market would be disastrous. Indirect linking can also happen when several direct bilateral links eventually create indirect links.¹⁴

The recent linking of California and Quebec is a direct, bilateral link. It is also referred to as bottom-up linking, because these are regional, sub-national markets. Another characteristic of bottom-up linking is that trading occurs between companies within the respective country and market, not between the countries. This linking architecture typically has a decentralised decision-making structure, which has negative implications for oversight, accountability and democratic processes.

The interest in bottom-up linkages of regional and subnational carbon markets stems in part from the lack of a new international agreement, such as the Kyoto Protocol, which ended in 2012.¹⁷ But the real drive for these linkages is that bottom-up linking presents a more informal, politically feasible option because a bilateral link only requires that two markets agree on linking, whereas a formal international agreement has to gain the support of numerous countries; bottom-up linkages can get under way much sooner.¹⁸ This kind of linking also faces less red tape, which is attractive to those players that do not like the restrictions put forward in formal agreements like the Kyoto Protocol.

Other reasons that proponents favour this approach is the claim that it will lead to economic efficiencies such as price equalisation of carbon credits and allowances, which will supposedly lead to increased cost-effectiveness and market liquidity, as well as eliminate information asymmetries.¹⁹

Linking allegedly leads to price equalisation and cost savings because it allows companies to buy allowances with lower abatement costs. If market A has a higher price per allowance, but market B has a lower price, companies from market A can then buy allowances from companies in market B, allowing reductions to occur at a lower cost.²⁰

The attraction of increased market liquidity comes from the claim that by linking markets and increasing the overall number of allowances in the market, this will decrease market volatility.²¹ However, this can also have the reverse effect of introducing volatility into a previously non-volatile market.²²

Why Linking Is Not the Key

The argument for linking carbon markets assumes that cap and trade achieves the outcome that it promises: emissions reductions. It also assumes that cap and trade is a good solution. This remains to be seen, however, especially in light of the EU ETS's all but complete collapse.

The price for carbon in the EU ETS has been incredibly volatile. It reached €29.69 in July 2008.²³ It languished below €10 for most of 2012, hitting a low of €2.46 in April 2013.²⁴ This kind of volatility undermines economic planning, while allowing some companies to reap a windfall with overallocation.²⁵ And it has attracted hackers and outright fraud,

culminating in shutting down the spot market in 2011 after a group of Eastern European hackers cost EU governments up to €5 billion in an attack.²⁶

From stolen and fraudulent credits to stockpiling, plunging demands and miscalculated caps, the carbon cap and trade program has more problems associated with it than any traditional regulatory program could.

Moreover, cap and trade is a pay-to-pollute scheme. It allows polluters to avoid directly reducing their emissions and ceasing polluting activities, so long as they pay for the necessary amount of credits to keep on polluting. Thus, cap and trade will not lead to the necessary emissions reductions to combat climate change. Linking carbon markets is just another way to continue and expand these pay-to-pollute schemes.

The Environment Loses

Despite claims that linking brings economic efficiency, cost reductions and other economic outcomes, a literature review shows that many papers, such as those from Jaffe et al. (2009), Zetterberg (2012) and Flachsland et al. (2009), examine linking from an economic perspective but pay very little attention to the implications of linking from an environmental perspective. The rhetoric is focussed primarily on how linking will make participating in carbon markets cheaper, but not necessarily on how they will lead to better environmental outcomes.

In addition, bottom-up linkages are a second-rate option for effectively reducing emissions.²⁷ This is because regional and sectoral markets cover only a small area of emissions, and the areas not covered by these markets risk facing emissions leakage.²⁸ Leakage occurs when regulating emissions in one area leads to increased emissions in an unregulated region.²⁹

Increased emissions could also occur from linking markets. Increases could happen if a low-damage market — a market or region with low emissions — decides to relax its cap on emissions in order to sell more permits to a high-damage market.³⁰ Relaxing the cap increases the total amount of allowed emissions under the cap, and is counterproductive to reductions.³¹

Linking carbon markets could also create a situation wherein linking is similar to offsets, but on a larger and more unstable scale. Within a cap and trade market, polluters can purchase offset credits that represent an emissions reduction made elsewhere — not at the source of pollution — and this counts towards the polluter's total reductions.

With linking, there is often a difference in permit prices between two linked markets. If permits in market B cost \$10 and permits in market A cost \$13, polluters from market A will want to buy the cheaper permits in market B, which also means that more reductions will occur in market B than in market A. This creates a back-door offset that will continue until permit prices equalise between the linked markets.

This could then perpetuate existing hot spots and could have the effect of turning entire carbon markets into temporary hotspots. Such "hotspots" form when emissions reductions mechanisms, such as offsets, allow polluters to make reductions elsewhere rather than at the source of pollution. Linking promotes making emissions reductions where it is cheapest and easiest to do so, regardless of whether this occurs at the source of pollution or in a linked market.³²

This presents a significant risk, because rather than reducing emissions in, say, China, emissions reductions can be made in a linked market with the cheapest price.³³ So while China has incredibly high levels of emissions in-country, linking could encourage emissions reductions in another market where credits are cheaper to purchase.³⁴ In the end, China's air is as toxic as ever, but the country can say that it has reduced emissions.

Diminished Democracy

Linking has significant implications for regulatory control and democratic processes regarding the management of linked carbon markets.³⁵ Where jurisdiction over a market was previously the exclusive domain of the locality or region, linking means that part of this control is given up. In addition, "linking involves a trade-off between increased overall efficiency and reduced leeway for regulatory interventions."³⁶ Who has authority becomes vague and unclear when linking markets, and also has implications for oversight, accountability and intervention.

When two emissions trading systems link together, the design and regulatory features of one market affect the other market.³⁷ This is problematic if market A has undesirable policies that market B did not allow on its own; after linking A with B, market B is now subject to policies that it otherwise would have rejected.

For example, one market might employ a stringent cap on emissions, but it wants to link with a market that uses a price ceiling mechanism for carbon credits to keep costs low; if the price ceiling is reached, more emissions credits are released into the linked market, increasing the total allowed emissions. This undoes the efforts of the first market to abide by a stringent cap and place priority on emissions reductions, because the second market placed greater importance on keeping costs low.

Similarly, if one of the markets involved in linking suffers greater price volatility, it is thought that by linking and creating a bigger market, this volatility will be spread out and subsequently mitigated.³⁸ However, for an emissions trading system that did not originally face this volatility, they now import that when linking.³⁹ "As a consequence, the overall economic effect [of linking] remains ambiguous: the benefits of spreading domestic price volatility over a larger market needs to be weighed against the costs of imported additional volatility."⁴⁰

China's crippling air pollution problems could have significant impacts if the country were to link with other carbon markets. Although China has begun emissions trading only

through pilot markets, there is already talk of creating a national market that could then link to others.⁴¹ As the country with the greatest share of global CO₂ emissions, China would inflict a significant burden on markets that it potentially links with.

With the recent near-collapse of the EU ETS, the European Union has had to step in and play a regulatory role in order to reform the market. However, as carbon markets form bottom-up links, who steps in to fix things when a problem arises? The bottom-up linking architecture leaves the door open for significant lapses in oversight, accountability and any kind of regulation.

Linked carbon markets allow polluters to operate outside of oversight, accountability and democratic participation. It is a form of evasion and allows polluters to dictate the rules and get away with continued environmental degradation. Linking allows polluters to place economic efficiency and cost abatement above emissions reductions, which will only uphold the status quo of pay-to-pollute, and contribute very little to addressing climate change.



A satellite photo shows smog blanketing China, the country with the largest share of global ${\rm CO_2}$ emissions. Photo By NASA

Conclusion

The greatest problem with linking carbon markets is that it is a substandard scheme to address emissions reductions. The best and only option for effective emissions reductions is to stop polluting, without exceptions. Schemes like cap and trade, linking carbon markets and forming global carbon markets are designed to be cheap and easy to carry out, with no guarantee of any beneficial environmental outcomes.

Linking carbon markets perpetuates the ability to cheat on making emissions reductions. Proponents of linking are even aware that this option is a second-rate attempt at any kind of meaningful or positive environmental impacts. ⁴² And, in the process of linking, democratic participation and legitimate oversight are significantly weakened. Linking carbon markets serves only economic interests, not public or environmental interests. It puts profits over people, and it is not a legitimate solution to emissions reductions.

Endnotes

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