

# The Flight from the Rational: Why Emissions Trading Fell from Grace and Why It Needs to be Restored

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On 25 March 2010, the *New York Times* published an obituary of emissions trading. In a piece entitled “Cap and Trade Loses its Standing as Energy Policy of Choice,” John Broder set out how, in little over a year, the policy so firmly endorsed by the new President Obama was now “in wide disrepute,” and expected that any new legislation that crawled out of the Senate would be at best a pale shadow of the muscular economy-wide system that had been introduced with such fanfare into the House.

A week earlier, it was the *Economist* pronouncing the last rites. In “Cap and Trade’s Last Hurrah – The Decline of a Once Widely Popular Idea,” their lead writer spoke of it as a 1990s idea, and said that market-based approaches were losing relevance. The *Economist* has also been tracking the difficulties with the Carbon Pollution Reduction Scheme (carefully named so as to not use the words cap or trade) in Australia as well as the tough politics surrounding the issue in the U.S.

These news items may turn out to look premature if in fact a cap and trade bill does manage, despite the odds, to make its way onto the U.S. statute book, and if Kevin Rudd’s manipulation of broader Australian election issues clears the way for the Australian scheme to take effect. Nevertheless cap and trade as a policy has encountered furious and effective resistance not just in those two countries but also in Japan and Korea, where the final shape of government plans to introduce serious emissions trading systems remains very doubtful. The emissions trading scheme introduced in New Zealand has also been the subject of strong criticism and calls for its repeal or postponement. Only in Europe has the scheme, introduced with what looks with hindsight to have been remarkably little fuss, become a part of the policy landscape, even if arguments continue about the level of ambition of the next targeted emissions reduction total, about allocation methodology and about a variety of more technical issues.

Why has this happened? Why is a policy widely regarded in the academic community as a success where it has been tried suddenly become so contentious?

Why has a policy originally intended to reduce costs to industry to a degree regarded as suspicious by environmentalists become so unacceptable to industry? Why has a market approach invented and proven in the U.S. for regional pollutants become so contentious there when it is applied to global ones?

To answer these questions we need to go through the advantages claimed for emissions trading when it was in favour in the U.S. and introduced in the EU. We need to see whether there is real evidence that those advantages are illusory or what other elements of the case in favour have become politically unacceptable.

There are perhaps eight reasons why trading seemed such an obviously tailor-made solution for greenhouse emissions.

1. Governments accepting the need for significant emissions reductions would be keen to find low-cost solutions to their obligations. The Kyoto mechanisms were constructed precisely in order to allow countries with targets to keep their costs down, within the negotiated complementarity limits.
2. IPCC and other cost data showed clearly that the cost of emissions reduction opportunities differed significantly across the globe; on the back of these figures, U.S., European and Australian economic models of global trading and the use by developed countries of project opportunities in lower-cost developing countries showed significant benefits from trading.
3. There was no environmental reason to object to non-domestic locations for emissions reductions or to the principle of major polluters offsetting their pollution by equivalent amounts of traded or bought project-based emissions. It follows from the physical and chemical nature of CO<sub>2</sub> and other greenhouse gases that it is the total level of emissions, not the location on the surface of the globe of the emission sources, that counts. Therefore GHGs, being also generally non-noxious around the source of their emission, are tailor-made for trading, more so than most other regional or local pollutants.
4. Trading was almost universally acknowledged to be the most economically efficient means of imposing an emissions reduction target, on the grounds that the market will be much better at distributing the undoubted economic burden than regulators and the precise distribution (see the points above) was a matter of indifference from the perspective of the objective of the regulation.

This is even more the case when there is a bewildering variety of different actions and investments possible that have the effect of reducing GHG emissions. The notion of a single marginal cost curve, however useful in terms of high-level explanation, gives a misleading impression of a priori knowledge available to regulators about the investments and sectors where action would be most economic at different stages of a national or global emissions reduction trajectory.

Many economists had earlier said that a tax is preferable to a price. The main reason was that the potential economic damage that could be done by fluctuating prices was seen as being greater than the benefit to the planet achieved by the earlier emissions reduction that could be achieved by accepting a fluctuating price. But as there was wider recognition that the damage caused by climate change was going to be greater and sooner than originally thought, the reason for preferring tax on economic grounds diminished. The political arguments against a tax and in favour of flexible regulation with an element of trading have, meantime, remained constant.

5. A further reason for supporting trading, implicit in the economic advantages referred to in 4 above but worth drawing out on its own, stems from the recognition that companies all have their own abatement cost curves that can for historic or process reasons be very different from each other. Trading allows companies to come to their own “make or buy” decisions depending on their own existing capital stock, their own efficiency potential, their own cost of capital, and their own competitive and demand circumstances.

Trading recognizes that there may be circumstances where it is economically rational for a company to continue to be a major emitter of greenhouse gases, and reduces that calculation to a price of carbon below which it makes sense to use the market to fulfill regulatory obligations, and above which it makes sense to spend money at home in order to keep the net cost of the regulatory obligations lowest, and perhaps produce emissions reductions that have a sale potential beyond the simple compliance with obligations.

6. Again implicit in both 4 and 5, but worth drawing out because it is so often missed or misunderstood, is the temporal flexibility provided by trading. The timing of investments is a hugely important part of the investment decision, and stranded assets can radically affect companies’ overall profitability. It makes perfect sense for a company faced with an emissions reduction obligation that requires major capital investment to undertake that investment at the time that is economically optimal for the business, and use the markets in the meantime to deal with the regulator’s demands. Because of point 3 above, the earth’s atmosphere is none the wiser.
7. A global regime needs global standards and global values, and both can usually only be achieved by global institutions. This applies as much to trading as to any other activity. Without trust in a common set of institutions and systems, willingness to trade diminishes and potentially expensive market failures prevent the capturing of the economic benefits. The UNFCCC system and the Kyoto mechanisms were founded on a common set of standards for measuring emissions and monitoring emissions reductions, and a common set of institutions – particularly the International Transaction Log and the CDM Executive Board – aimed at

setting standards for, and keeping the books on, international trading of emissions reductions and credits.

While the day to day efficiency and throughput of the CDM system had been a source of complaint by much of the private sector from the very start, and the controversies of offsetting as a legitimate route for emissions reduction have never entirely gone away, the UN regime was broadly trusted by environmental, development and financial stakeholders alike, if only as a base on which to build.

8. Finally, flexible trading schemes allow the emissions reductions to be captured even when they occur outside the boundaries of the trading scheme itself, by allowing the contribution of savings on a project basis. The calculation of the baseline from which the project savings are measured, and the distribution of the risk that the savings would have occurred anyway, are issues that have affected governments' willingness to make use of supply-only projects, though both issues are in fact also present in the establishment of targets and baselines at sectoral and national economy levels.

There is also considerable political attraction in extending trading so as to make it potentially economically interesting for countries without (temporarily or otherwise) formal emissions reduction targets in a global scheme. That the economic incentive flows from private sector funds, rather than from aid-like funds contributed by developed country governments, was seen as another great advantage of global emissions trading.

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Every one of these reasons for making use of trading has in the past couple of years experienced considerable push-back from different groups of stakeholders, often with very different motives. It is instructive to consider in each case what the criticisms are, where they come from, and why they have grown so strong.

1. Firstly, keeping the cost of emissions reductions low. The premise here, of course, is that it is accepted that there should be emissions reductions at a level that raises the question of keeping the associated costs low at all. Unfortunately there is much less political support for this now than before. The economic recession increases the volume of the voices who say that the climate will just have to wait, and that in a time of economic difficulty the most important thing is to eliminate costs wherever possible. This links with the familiar, though previously not widely supported, argument that economic growth is good for the economy because in time it will lead to levels of prosperity such that people will be willing to trade off further conventional growth for public goods, including environmental benefits.

The very companies who would stand to benefit from the introduction of the flexibilities of trading feel that they would do better from defending a

more forward position – that there should not be serious levels of imposed emissions reduction or regulation at all. It is logically inconsistent for them then to say much about trading such reductions.

2. Secondly, the availability of lower cost opportunities abroad has been counterweighed by growing objections to the idea of doing anything abroad that could provide employment, when jobs at home are under pressure. The objectors using this argument tend to be those who have always been interested in protectionist approaches in times of economic recession – not companies but politicians responding to the political impact of recession, and organized labour. The degree to which the modern global economy, and supply chains used by almost everyone, depend on the use of global comparative advantage and global outsourcing, seems to have been forgotten. This is part of the anti-globalisation agenda.
3. Third, the scientific reasons for indifference to the location of emissions reductions have not been assailed (though other scientific arguments have – see below). But the substitutability of emissions reductions abroad has come under attack on two fronts, from mainly environmental but also development-oriented NGOs and other stakeholders. There has been a growing suspicion of the bona fides of emissions reduction projects in countries perceived as untrustworthy, and this awakens sympathy from a public with an underlying tendency to believe in scams, fanned by a media which knows that scams have good news value.

There has also been some re-emergence among environmental and development stakeholders of the argument that offsets or purchases from far away are like the purchase of indulgencies – that there is a moral obligation on polluting firms to stop polluting, rather than make calculations of the economic cost, to the companies concerned or even to society, of stopping polluting. This has some public and political traction on its own, but usually has to be joined with the suspicion of scams to be truly potent.

4. The fourth area – the efficiency of trading – has perhaps seen the greatest reverses. This is deeper than the moral outrage over the behaviour of traders in other markets, particularly when those markets have failed spectacularly. This moral outrage is a deeply-rooted political response from a public which does not understand what has happened in those markets and is looking for someone to blame. That is naturally amplified by politicians who often have little better understanding of which particular aspects of the financial market turmoil are blameworthy and which are not, and which markets are susceptible to a repeat and which are not.

But there are rather deeper failures of confidence in trading at work, leading to criticisms by politicians, companies and a variety of other stakeholders. A series of problems affecting the only example of a full emissions trading

system currently in operation, the EU emissions trading scheme, has been occurring for some time. Some of them, however, are not really problems that can fairly be described as intrinsic to cap and trade. Excess supply in the preliminary, experimental phase of the EUETS, leading to a price collapse, was caused by poor information, non-harmonised allocation methodologies and allocation generosity to some classes of companies subject to the EUETS, a short compliance period and the non-availability of banking into subsequent periods. Generous free allocations intended to ease in the economic changes implicit in the system led to windfall profits. Apparent excess supply in the second phase has been caused by the reduction in energy use and therefore of carbon emissions owing to the recession, though as a result of the availability of banking through to 2020 prices have stayed firm.

Volatility of prices has been claimed, though the claim does not stand up when movements in carbon prices are compared with movements in other commodity prices over the same period. Poor security of account-holders' details in unharmonised national details was exploited by fraudsters. Value Added Tax frauds have occurred as a result of different tax liability between the countries covered by the EUETS. A loophole in the EUETS registration regulations allowed some surrendered credits to be recycled, some legally, some fraudulently.

These can be characterised as a bad run of luck for the EUETS or teething problems that do not detract from trading per se, but the impression of repeated problems has taken its toll of confidence in the scheme.

Some rather more well-founded criticism has been directed at the low prices in the EUETS, clearly insufficient on their own to stimulate investment in low-carbon capital goods. Partly because of the low prices, carbon trading in the EUETS has appeared to be just a low-value add-on to prices of fossil fuels and electricity. A large proportion of trading has occurred in the power sector, with industrial companies unwilling to trade, apparently in defiance of economic logic. And there is not much policy coherence between the intended impact of the carbon price and the many EU regulatory and subsidy interventions designed to nudge companies into technologies and other investment decisions favoured by regulators and Governments.

It can be countered that these are all the result of Governmental choices made within the framework of the EUETS that are again not the fault of the trading system. Furthermore assumptions about what companies should be doing to reduce carbon, in particular investing, are not consistent with the confidence in market decisions that is an essential part of a trading regime.

Judged according to the principal objective of the EUETS, which is to achieve a given level of emissions reductions, the better view, as confirmed by recent full economic analysis of the performance of the scheme, is that the targets were unambitious but the EUETS has done what it was asked to

do. But again the number and variety of criticisms has left question marks over its overall performance, and the process of explanation has left the impression of needless complexity.

Meanwhile the greater importance of a steady emissions reduction performance vis a vis a steady price has also been shaken by the recession, leading to the resurgence of arguments in favour of tax (which is even said to be less complex, though the features such as derogations and phasing leading to EUETS complexity are unlikely to be any less politically attractive if the imposition of a price is achieved by a tax rather than cap and trade system).

- 5 and 6. The fifth and sixth advantages of trading, the flexibility for companies to choose whether and when to make or buy emissions reductions, have been criticized as part of the rather ill-founded objections to the EUETS record of achieving low-carbon investments. Here the criticism comes mainly from the environmental side, for whom the availability of alternative means of emissions reductions has allowed companies to get away without major new expenditure on an immediate fundamental change in investment policy. So the argument builds up that these flexibilities must be withdrawn, though it does not take much thought to see that the problem here, if there is one, is about the level of ambition of emissions reduction targets rather than the means available to companies to achieve them.
7. Argument number seven concerns the reliability of the UNFCCC systems in providing the basis for a trusted global system of measurement and monitoring. The main focus of criticism here is the performance of the CDM, objected to by companies and environmental stakeholders alike, but for quite contradictory reasons. For many companies, the slow speed, opaque processes and poor management of the CDM Executive Board add transaction costs and detract from the promised availability of offsets as a source of flexibility and reduction in the overall cost of meeting targets.

For those on the other side of the argument, the continued drip-feed of stories about questionable additionality of some projects or types of projects, and poor implementation of other safeguards built into the CDM process, suggest that far from speeding up and standardizing, the CDM needs to be run with ever tighter levels of scrutiny to ensure maximum environmental integrity, which is taken as being the most important criterion against which to judge the success of the system.

8. Finally, the basis for allowing supply-only injections of offset projects has come under increased pressure from Government parties to the UNFCCC negotiations, on the grounds that the majority of the developing countries that have provided most of the CDM projects so far have now developed their economies to such an extent that they ought to take economy-wide or sectoral targets themselves rather than continuing to get the benefits that accrue to them under the current CDM system. This again is hardly the fault

of trading or the principle of offsetting, but rather of the lack of a durable and accepted methodology for categorizing countries between those taking caps and those only supplying offsets. But the controversy and dissatisfaction rub off on the whole international trading system.

Acting as a background to all these criticisms is the increasing general public suspicion of the global emissions reduction enterprise which is engendered by increasing stories about holes in the science of climate change, doubt about the importance of human activities as a cause of climate change, and therefore decreasing confidence in the justification for expensive programmes and policies of which cap and trade systems form an important part. Some of this represents wishful thinking on the part of the general public about not needing to incur economic costs in a time of recession; but some companies and politicians have fed or amplified these thoughts by contributing material intended to reignite debates (loved by the media because of the attractions of reporting conflicting opinions) which many had thought were over for good. The generally heightened uncertainty about climate change is fertile soil for criticisms of all emissions reduction policies.

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The list of new and rejuvenated objections to the arguments in favour of cap and trade systems is a long one, and setting them out in full helps understanding of why the New York Times, the Economist and others have been tempted to conclude that the tide has turned and cap and trade is on the way out.

But careful analysis of the arguments shows them to be incoherent, both in terms of the differing degrees of logic behind them and in terms of the different and often contradictory perspectives from which they come. Some of the objections are fair, or at least raise questions about the expectations of cap and trade systems and the importance of cost reduction against other objectives. Other objections come from perspectives generally regarded by economists as invalid, if seductive in times of hardship. Others arise from expectations that were never reasonable, at least given the choices so far made within the EUETS. Yet others are based on problems that have nothing to do with trading but which have occurred or are feared to be occurring around emissions trading schemes being designed or already in operation.

But the issue that seems to lie deepest is that, in a recession, the public and politicians are less willing to accept the cost and disruption associated with carbon pricing. This is a legitimate political viewpoint, requiring the re-examination of the total costs of combating climate change vis a vis the benefits that society and the planet will get from success in doing so. It does not, however, affect the question of the superiority of cap and trade as a means of delivering whatever level of emissions reduction that society is happy with. Few of the arguments now being deployed raise real doubts about the justifications previously thought sufficient to settle that point.

It is to be hoped that clear thinking about what is now being objected to will avoid the potential disaster of treating trading as a scapegoat and condemning future action on climate change to unnecessary additional costs.