How to make Emissions trading work: Lessons Learnt from the EU ETS

Introduction

The European Union (EU) Emissions Trading System (ETS) is the most extensive example of a functioning emissions trading system to regulate greenhouse gases in existence to date. In 2005 the European Union introduced legally binding caps on all large point sources of emissions in each of the 27 Member States. This created the EU ETS, now in its second phase. In this phase, running from 2008- 2012, caps have been tightened and more companies must now either reduce their own carbon emissions or pay others for equivalent emissions reductions either in Europe or overseas via approved carbon reduction projects.

This early experience in Europe offers rich evidence on issues faced in the design of an effective emissions trading policy. This briefing highlights the key lessons from the EU's experience for policymakers and stakeholders in countries currently considering implementing their own emissions trading systems, and for the development of a global carbon market.

Lesson 1: Start with the power sector or other sectors not exposed to international competition

The EU ETS has worked much better for the power sector than for industries exposed to international competition. In the US the only existing regional scheme on the east coast (known as the Regional Greenhouse Gas Initiative (RGGI)) just focuses on the power sector.

It is far easier to impose tougher emissions caps on power generation which cannot, like some other industrial sectors, threaten to relocate their operations abroad. The power sector is also relatively easy to regulate in that a relatively small number of installations and companies are responsible for high levels of emissions, making monitoring easier. Power generation also has clear options available for reducing its emissions; lower carbon and more efficient technologies are becoming ever more available and reliable. Other industrial sectors such as metal production might be more constrained in what they can do to reduce their emissions without access to affordable carbon capture and storage or large volumes of decarbonised electricity.

At the moment, the power sector in the EU is required to deliver greater emissions cuts than the system as a whole as industrial sectors have been allowed to continue increasing their emissions. So far we estimate the power sector has been granted roughly one billion fewer permits than were needed to cover emissions while heavy industry has roughly the same volume of spare permits that they do not need. The system would actually work better in the short term with internationally competing industries taken out.

Like power generation, sectors which supply fossil fuels for heating and transport also lend themselves to emissions trading systems as they too can pass on costs to consumers with relatively little risk of demand shifting overseas.

Lesson 2: Auction permits, don't give them out for free

So far the EU has given out the vast majority of emissions permits for free. The reason for this is that it compensates for the competitive distortion of a carbon price without affecting the environmental outcome. The problem with this is that the allocations were initially based on past historic and predicted future emissions which are notoriously difficult to estimate correctly, especially in the event of economic downturns. The process also gave powerful vested interests and the opportunity to lobby

for generous allocations. Free allocations create the risk of companies making windfall profits without making effort to cut their emissions, however, they are often necessary to stifle political opposition to the introduction of a trading system. If free allocations are determined in relation to production benchmarks instead of past or future emissions they can provide a further incentive to reduce emissions. Auctioning however is more efficient. With auctions of permits, companies only buy what they need, and the auctions generates a valuable revenue source that can be spent on addressing any negative impacts of the system. Money can also be put aside to be spent on adaptation or on research and development into climate change solutions. The EU will shift to an auctioned system for the power sector in 2013.

In RGGI auctioning is the chosen method of allocation and this gives the participating states a revenue stream that they can spend. Many states have chosen to spend the money on schemes to improve energy efficiency which helps to save energy and reduce consumer bills. This helps to offset the impact of higher fuel bills.

Lesson 3: Don't believe the scare stories from vested interests – it is better to err on the side of ambitious environmental targets.

Some sectors of industry have been very vocal in their objection to emissions caps, predicting it will make European industry uncompetitive forcing them to cut production levels and jobs, as well as pushing up fuel bills. European industry effectively lobbied the EU that their dire predictions would come true unless generous allocations of permits were issues. Since then we have learnt that their predictions were not correct, industry was generously over allocated permits leading many to generate handsome windfall profits.

It is very difficult to predict in advance what price will emerge in a trading system – so far the predictions by industry have been proven to be much higher than actually turns out to be the case once the scheme is up and running.

Predicted price of carbon from 2005-2007 €30: Actual Price reached €0

In practice, instead of concerns over 'price spikes' there has been more concern regarding the effect of sustained low prices of carbon not providing the incentives for low carbon investment and new jobs that many had hoped for. Industry scare stories should be treated with a degree of scepticism as evidence has shown that price predictions are not borne out in practice since the market is very efficient at sourcing low cost solutions. Policy makers should err on the side of tougher caps but with safety valves such as allowing the use of credits generated outside of the scheme – often referred to as 'offsets'. These can either be generated in the same country in uncapped sectors or internationally in countries without trading systems. Another way to reduce costs is to link to other similar systems. Increased scope increases the availability of abatement options preventing price spikes.

Finally, it is possible to reduce the likelihood of high prices in the emissions trading market by introducing supportive policies, for example, using auction revenues for the deployment of renewable energy and increased energy efficiency. All of these 'safety valves' are preferable to the setting of weak caps based on low environmental ambition.

Lesson 4 - Remember why the market was set up – and hold onto powers to maintain environmental integrity.

Many people advocate a 'laissez faire' approach to emissions trading systems once they are set up and resist change on the basis that markets need 'certainty'. However it must not be forgotten that emissions trading schemes are set up to achieve environmental goals and are not an end in themselves.

Traded markets can deal very well with uncertainty and volatility as long as the rules are clear. Policymakers need to retain the power to revise a policy if it is not achieving its aims.

The EU has tied its hands by creating a system with a fixed supply of permits set a long time in advance. It has too few powers to adjust its own system. Regular reviews should be built in from the start to allow for an increase in ambition in the event of unexpected events. The current recession in the EU is a case in point – at the moment caps are sitting above emissions which drastically reduces the effectiveness of the scheme. The RGGI system is also suffering from too weak targets leading to low prices. Setting aside a pool of permits that can be cancelled if necessary and conducting regular reviews are essential to a well functioning scheme.

Lesson 5. Clarity and transparency

An effective emissions trading systems relies on a wealth of data that needs to be collected from all installations participating in the scheme. This data forms the basis of any monitoring which can help to establish if the system is performing as planned.

By making the core emissions data publically available key stakeholders have been able to analysis the data and flag instances where there has been an abuse of the system. Most notable has been the uncovering of the windfall profits have been made by some participating companies – some of the same companies actively lobbying to water the scheme down.

These recommendations are based on our experience of scrutinising emissions trading schemes in existence to date. We have focused most attention on the EU system where we produce extensive reports into how it is performing and also produce interactive maps showing how the market is working on the ground.

If you require any further information about the work we do please visit http://www.sandbag.org.uk or contact us on info@sandbag.org.uk