



IEAGHG Information Paper 2015-05; The World of Carbon Trading: As It Stands Today

With a turnover of some €90 billion in 2010, the EU's Emissions Trading System (ETS) is the world's largest carbon market. About 80% of it is traded in futures markets and 20% in spot markets. The ETS aims to encourage companies to invest in low-polluting technologies by allocating or selling them allowances to cover their annual emissions. The most efficient companies can then sell unused allowances or bank them.

The ETS had been heavily criticised for containing a number of major flaws. It has weathered many storms, including massive VAT fraud, quota thefts, various scams like Ponzi schemes, and criticism from environmentalists. It is also considered to be in direct competition with other EU energy policies, such as the large-scale subsidising of renewable energies. Renewables are responsible for over half the EU's reduction of CO₂ emissions since 2008.

Several groups have questioned the effectiveness of European policies. The introduction of the carbon market they argue came at a cost, just like energy efficiency measures or the installation of wind turbines. Chasing the three 2020 objectives simultaneously - 20% renewables, 20% CO₂ reduction and 20% energy savings - like the European Commission intended, ended up being self-defeating.

CO₂ emissions in Europe have declined by about 1.1 gigatons of CO₂ since 2005, whilst this was credited by the EU to be due to the economic downturn the major reduction is now attributed to renewables. The rapid development of renewable, helped by favourable tax regimes in most European countries, took the market by surprise. According to Eurostat, electricity generated from renewable sources rose from under 14% to over 20% of the total in Europe between 2005 and 2011. Photovoltaic panels in the South and wind turbines in the North have revolutionised the European energy mix. According to CDC Climat, these new energies alone explain half of the carbon savings since 2005, representing 500 million tons of avoided CO₂ emissions. The economic slowdown, for its part, contributed a smaller share of emissions reduction, estimated at 300 million tons of carbon.

The bottom line is that the contribution of the economic crisis in lowering carbon emissions is lesser than initially thought. These positive developments are not without their casualties however, with the EU's carbon market plummeting. Carbon prices have played a part in reducing emissions but their main effect was to promote fuel switching, from coal to gas. The EU carbon market also helped to reduce emissions outside of Europe, thanks to the so-called "flexible mechanisms" foreseen under the Kyoto Protocol. But in the end, the carbon market was neutralised by the weakness of the CO₂ emissions in Europe, which led to an artificial abundance of emission quotas in circulation. The carbon price has fallen to zero first in 2008, before going up to nearly €30 per ton in 2009. They currently hover around €6 per ton.

Reform of the ETS is now being discussed and it will be interesting to see if the reforms can be implemented and have a positive effect on the price of carbon.

Though the ETS is not been an outright success, the concept of carbon markets enjoys the broad support of the international community. Its increasing introduction by governments around the world illustrates their political acceptability as a method of taxation. China has established no fewer than six carbon markets, South Korea has recently launched its first, and the United States has two major markets; one on the east coast and one on the west. It is nevertheless being imitated around the world: Thailand, Korea and Vietnam have recently unveiled their own ETS projects; China has launched several ETS projects; and Mexico and Taiwan are also planning to introduce their own carbon markets.



At the World Economic Forum in Davos recently, François Hollande, Ban Ki-moon and Jim Yong Kim, the president of the World Bank, all stressed the importance of placing a price on carbon.

But it seems opinion is divided over how pricing systems should be implemented. The reputation of carbon markets has suffered in recent years. Headlines were made at the COP 20 in Lima, when indigenous tribes appealed to the United Nations conference not to develop carbon markets for fear that they would encourage land speculation.

Certain European countries, including the United Kingdom and Sweden, believe in carbon pricing so thoroughly that they have implemented parallel carbon taxes.

In 2014, more than 1,000 companies and investors spoke up in support of carbon pricing through a series of initiatives led by the World Bank and other organizations, including the Prince of Wales's Corporate Leaders Group, whose Carbon Price Communiqué¹ began expanding corporate support for carbon pricing in 2012; the 2014 Global Investor Statement on Climate Change, signed by more than 360 investors with more than \$24 trillion in assets, which included a call for "stable, reliable and economically meaningful carbon pricing that helps redirect investment commensurate with the scale of the climate change challenge"; and the Caring for Climate Initiative, created by the UN Global Compact, which encourages businesses to commit to its set of leadership criteria. Those initiatives led to the creation of a Carbon Pricing Leadership Coalition².

Individually, over 150 major companies are improving the sustainability of their own operations by instituting internal or "shadow" carbon pricing, according to surveys by CDP. Microsoft, for example, talks about using its internal carbon fee model to encourage innovation and resource efficiency that is reducing emissions and saving the company money. Other companies are testing carbon pricing models. In Brazil, 20 companies, including Braskem and Vale, have joined forces to run a carbon pricing simulation.

Further reading:

<http://www.euractiv.com/sections/climate-change-road-paris/carbon-pricing-challenge-future-311576><http://www.worldbank.org/en/programs/pricing-carbon#1>

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¹ The Carbon Price Communiqué can be found at: <http://www.climatecommuniques.com/Carbon-Price.aspx>

² Carbon Pricing Leadership Coalition

The Carbon Pricing Leadership Coalition brings together leaders from government, business, and civil society to share experiences and best practices in carbon pricing. The coalition will convene high-level meetings and create an analytical foundation that includes future carbon price scenarios and best practice principles for pricing carbon. Its work will complement that of the Partnership for Market Readiness (PMR), which provides technical assistance to create building blocks for carbon markets, and the Networked Carbon Markets Initiative, which facilitates linking or networking of different carbon markets to deliver effective climate finance.

The coalition's work includes: Advancing carbon pricing: Defining the business case for carbon pricing;. High-level dialogue: The coalition will convene a series of high-level dialogues with finance ministers, investors, corporate leaders, civil society groups, and experts during 2015.