

The Making of the EU Emissions Trading Scheme: Status, Prospects and Implications for Business

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Emissions trading is likely to be a crucial pillar of future climate change policy. Since 2005 the European Union (EU) has implemented a CO₂ emissions trading scheme, the first major global scheme of its kind, and potentially an important precursor for other such schemes. This article assesses whether the EU Emissions Trading Scheme has lived up to its promise as a cost-effective tool for reducing greenhouse gas emissions in line with the Kyoto Protocol targets and beyond. It outlines the possible steps to improve the functioning of the EU ETS and identifies the resulting managerial implications.

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Introduction

The EU has identified climate change as one of the most important challenges. Recognising that climate change is likely to have major negative consequences for the environment, the economy and societies at large, the EU has repeatedly confirmed its position that an increase in the global, annual, mean surface temperature should not exceed 2 °C above pre-industrial levels.¹ An important step for the EU to achieving this goal is the effective implementation of the Kyoto Protocol's commitments with the EU Emis-

sions Trading Scheme (ETS) (European Union, 2003; 2004) being the central instrument.

Launched in 2005, the EU ETS is the first cross-border tradable permit or emissions trading scheme to address GHG emissions, covering almost 11,500 installations or about 45% of total CO₂ emissions in the EU, including process emissions.² The EU ETS has quickly become the reference point for GHG emissions trading schemes, which in all likelihood will become a crucial part of the global response to climate change.

This article assesses whether, after more than two years of operation, the EU ETS has lived up to its promise as a cost-effective tool for reducing greenhouse gas emissions in line with the Kyoto Protocol targets and beyond. It describes the original intention of the EU ETS, before it reviews and evaluates current implementation, and thereby takes a more realistic view on what the ETS has achieved. Next it discusses the future challenges and the potential to address them, before looking ahead to attempts to increase predictability, a precondition for new and low-carbon investment.

The Fast, Yet Surprising Rise of Emissions Trading in the EU

In the past European governments and the EU at large tended to shun emissions trading, mainly in

light of the public's perception that they are a "license to pollute". Experience with emissions trading has therefore largely been confined to the United States, which have witnessed emissions trading schemes since the 1970s. Among them was the successful US SO₂ trading programme, which has become the reference point of emissions trading globally (e.g. Klaassen 1996). For Europe it needed the "imposition" of the emissions trading provisions of the 1997 Kyoto Protocol by the US to bring this instrument gradually on the EU agenda.³ Ever since, there has been an increased interest in the EU in emissions trading. Member states, among them Denmark and the UK, companies such as BP and Shell, the EU electricity sector and industrial associations such as Entreprises pour l'environnement were increasingly becoming interested in emissions trading schemes for greenhouse gases (e.g. Egenhofer 2003; Philibert and Reinaud 2004).

While we can only speculate about the exact causes, the following theoretical advantages may have contributed to this European turnaround. First, emissions trading, in theory offers the prospect to meet the environmental goal in the most cost-effective way by ensuring that the market price of carbon is equal to the lowest marginal abatement cost amongst all controlled sources. Ultimately, it provides for a mechanism by which emitters – factory operators, oil refineries, power plants etc. – can identify the most cost-effective ways to reduce their emissions. By factoring carbon-reduction strategies into day-to-day business decisions, emissions trading would go beyond conventional environmental policy, mainly seen as an inescapable overhead. Another potential advantage is that the resulting (forward) carbon price would improve long-term predictability, a crucial factor for business to make efficient investment decisions. Third, a cap-and-trade system such as the EU ETS provides environmental certainty by capping the overall emission level from the covered sources. Such a system lends itself well to the implementation of the Kyoto Protocol targets which are expressed in absolute terms. Fourth, emissions trading can be expected to minimise the distortions to competition in the EU market as it imposes an EU-wide carbon price for all industries alike.

Another strand of the literature associates the rise of emissions trading with the "entrepreneurial role" that the environmental department of the European Commission, DG Environment has played (e.g. Christiansen and Wettestad, 2003; Wettestad 2004; Wettestad, 2005). One could also hold that there was "something inevitable" about the EU ETS as all other tools to address greenhouse gas emissions at the EU level of governance had failed. Most spectacularly, the 1992 European Commission carbon/energy tax proposal was never adopted and has later been withdrawn. Under the EC treaty, taxation measures need to be adopted by unanimity, meaning de facto that each member state has a veto on taxation.

Taxation for environmental purposes has therefore been confined to member states (e.g. Fujiwara *et al.*, 2006). Similarly, voluntary agreements or "negotiated environmental agreement", industry's preferred instrument, have made very little impact at the EU level of governance, again mainly due to institutional reasons. Since voluntary agreements are negotiated between the European Commission and the industry concerned, the European Parliament has been opposed to such agreements since effectively their content is withheld from parliamentary scrutiny and approval. The conclusion of voluntary agreements is also complicated because of a lack of suitable interlocutors at EU industry level. It is increasingly doubtful whether European-wide industry associations can commit effectively to voluntary agreements due to the heterogeneity of their membership and their internal divisions (ten Brink *et al.*, 2003).

How the EU ETS was Adopted

The EU ETS was the result of rigorous consultation on the part of the European Commission with stakeholders, especially but not exclusively in the context of the European Climate Change Programme (European Commission, 2001). This consultation has been followed by intensive discussions within and between the Council of Ministers and the European Parliament. In the end, the EU ETS was adopted unanimously by the Council of Ministers and by a very large majority in the European Parliament. In general, business was favourably disposed to the scheme, as were NGOs.

The EU settled on the cap-and-trade model, which is the preferred option in the emissions trading literature, both for efficiency and effectiveness reasons. Theoretically, cap-and-trade keeps transaction costs low by allocating unambiguous property rights and ensures environmental effectiveness as emissions are capped. To date the EU ETS covers CO₂ emissions from large industrial and energy installations only from a limited number of sectors.⁴ Credits from the Kyoto Protocol's project mechanisms, CDM and JI⁵ can be used for compliance within limits, however (Lefevre, 2006).

There were compromises to be made on the way to adoption of the EU ETS. A key feature of the EU ETS is free allocation of allowances of up to 95% for phase 1 (2005-07) and up to 90% for the second phase (2008-12), which is generally judged as less efficient than auctioning, i.e. making emitters pay for emissions rights. Principal reason for free allocation was to "buy" industry acceptance. As long as allowances are given for free, companies receive additional revenues, which partly or entirely offset higher production costs as a result of the EU ETS.

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