

THE EUROPEAN CARBON MARKET IN ACTION: LESSONS FROM THE FIRST TRADING PERIOD

An International Research Program led by:

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PRESENTATION

The European Union Emissions Trading Scheme (EU ETS) is the largest greenhouse gas market ever established. The European Union is leading the world's first effort to mobilize market forces to tackle climate change. A precise analysis of the EU ETS's performance is essential to its success, as well as to that of future trading programs.

The research program *The European Carbon Market in Action: Lessons from the First Trading Period* aims to provide such an analysis. It was launched at the end of 2006 by an international team led by Frank CONVERY, Christian DE PERTHUIS and Denny ELLERMAN. An interim report was released in March 2008 which presents the researchers' findings to date. It is available in both English and French versions on the website of the Association for the Promotion of Research into the Economics of Carbon (APREC), accessible at www.aprec.net.

ADDRESSING THE ISSUES RAISED BY THE EU ETS

- ➔ How Could The EU ETS Be Put In Place?
- ➔ What Choices Were Made Regarding Allowance Allocation?
- ➔ How Did the Financial Market Develop and Facilitate Compliance?
- ➔ Did Emissions Abatement Occur?
- ➔ What Have Been The Impacts Of The Carbon Market On Industries, Noteworthy The Power Sector, And Their Competitiveness?
- ➔ How Did The EU ETS Help Expanding The Carbon Price Signal Worldwide?

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MAIN CONCLUSIONS AT THIS STAGE

➔ **The pilot phase was useful.** The first phase of the EU ETS presented a number of problems, but its aim was to make the system run, and this was done within a very short timeframe. Lessons from the pilot phase are already being learned, as is confirmed by several allocation choices in the second phase: more harmonized allocation rules, stricter caps set in National Allocation Plans, etc. An important insight from the pilot phase: not all elements have to be in place when an emissions trading scheme is launched.

➔ **Carbon now has a real price.** From 2005 to 2007, the European market developed strongly in terms of traded volumes and market infrastructure. An effective carbon price has emerged on this market reflecting the balance between supply and demand. The market proved to be economically rational: the allowance surplus for the first period led to a price close to zero in 2007 and steadier prices for the second period reflect the scarcity anticipated by market players from political decisions. All the big industry and finance players now consider carbon to be no longer free in Europe and that it will continue to be costly in the future. A major achievement after only three years.

➔- **Carbon price has induced some emissions abatement.** Despite over-allocation, which clearly existed in some Member States and sectors, a significant price was paid for CO₂ emissions during 2005-06 which induced some emissions abatement. While switching from coal to natural gas did not occur in the magnitudes expected, other unanticipated emission reduction strategies were employed, including intra-fuel substitution (brown to hard coal) in Germany and improved CO₂ efficiency in the UK.

➔- **Carbon price has had a limited impact on industrial competitiveness.** In the power industry, only a part of the profits made in 2005 and 2006 can be attributed to carbon prices being passed through to consumers. “Windfall profits” were due in part to free allowance allocation, but also to market restructuring and high fossil fuel prices. In the non-power sectors, including cement, refining, steel and aluminum, international competition makes it difficult, if not impossible, to pass carbon prices on to consumers. To date, there is no empirical evidence of any market share loss in these sectors due to carbon pricing. However future stronger carbon constraints may affect their long-term competitiveness.

➔- **The European carbon market has had external impacts.** From its inception, the EU ETS was designed to be enlarged. Since 2005, the scope of the EU ETS has been significantly extended to two new Member States, Romania and Bulgaria, and linked to Norway. The EU ETS’s link with the international Kyoto credit market has driven the development of Clean Development Mechanism (CDM) projects in developing countries and has led to additional emissions reductions through Joint Implementation (JI) projects. The development of the European carbon market has provided the first empirical experience with linking different carbon markets and valuable lessons on how linking may be incorporated into future climate regimes.

➔- **Lessons from the EU ETS can be applied to future climate negotiations.** The EU ETS is a true multi-national system. The European Union is home to 500 million people, living in 27 countries, embracing 23 languages, with per capita GDP ranging from \$42,000 (Ireland) to \$9,000 (Romania and Bulgaria). Through the EU ETS, nations of widely varying circumstances and commitments to climate policy have agreed to a common constraint. Europe’s choice of emissions trading has created a ‘fact on the ground’ that will be difficult to ignore in future global climate negotiations. The EU ETS is likely to contribute to the shape of a future global system, and is already instructive for emerging national and regional schemes.