Mathematics of the Emissions Markets

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The talk is concerned with the mathematical theory of the cap-and-trade schemes touted as the most efficient way to curb Green House Gas emissions. After reviewing recent results from [1] on price formation based on economic equilibrium theory, we demonstrate the desirable features of alternative allocations schemes introduced in [1] and [4] on the Texas and Japan case studies reported in [1] and [2]. If time permits, we will introduce a simple reduced form model which can be calibrated to existing allowance price data, and used to price options on forward allowance prices. This most recent work [3] is motivated by the increasing liquidity of the European Union ETS and the prospect of a unique federal cap-and-trade scheme in the US.

Références


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