SEVENTH FRAMEWORK PROGRAMME

The role of international carbon offsets in a second-best climate policy: A numerical evaluation (*FEEM Note di Lavoro* , n. 2010.33, 2010).

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Abstract. International carbon offsets have been promoted since the Kyoto Protocol and an increasing number of countries have implemented or proposed cap-and-trade schemes with international trading, even though with quantitative or qualitative restrictions. Those limits reflect the trade-off between economic efficiency, distributional issues, and the need for additionality of foreign mitigation measures. Ceilings are also justified on the ground that international offsets undermine the capability of climate policy to induce and diffuse technological change.

This paper addresses these issues in a second-best setting that explicitly considers the interplay between multiple externalities. We evaluate numerically how limits to the size, the timing, and the participation to an international carbon market affect the macroeconomic costs of climate policy, international financial transfers, and the incentive to carry out innovation.

Results indicate that when constraints on international offsets are moderate, such as limiting their use to at most 15% of regional abatement, efficiency losses are small because they are partly compensated by more technological change and energy market effects, although specific regional patterns are identified. Regarding financial outflows from OECD countries, already a 15% ceiling would limit financial transfers significantly. Provisions of this kind are in line with some of the most recent policy proposals in OECD countries.