

Who Are the Winners and the Losers?: Relocation Effects of Emission Credit Trading

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Abstract

In this paper, we explore who are the winners and losers of the emission control policy via credit trading and the carbon-offset program. To focus on the long-term effects of firm relocation, we employ a two-region model of monopolistic competition and assume that the rural area has an advantage in terms of the availability of absorption sources. The main findings are as follows. First, without carbon-offset programs, strengthening the emission controls drives firms to relocate from the rural to the urban area, where the relative welfare is improved. Second, in the case with a carbon-offset program, strengthening emission controls has mixed effects, and the transport cost of firm products is a key parameter. When the transport cost is sufficiently high, the introduction of emission controls with an offsetting system lowers the firm share and the relative welfare in the urban area, while the reverse occurs when the transport cost is low. Finally, in the case allowing for labor mobility, the results are similar to the immobile-labor case with lower transport costs if the initial equilibrium is interior. This story tells us that some redistribution policies might be required under the emission control with or without carbon-offset programs.

Key words: Carbon-offset program, Emission credit trading, Firm/labor relocation, Regional inequalities.

JEL Classification: Q5, R3.

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