## Pollutant firm's location choice and grandfathering permit allocation as soft budget constraint in international emissions trading market\*

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## Abstract

We investigate an effect of grandfathered permit allocation on growth rate, a firm's location choice, FDI, total pollution in endogenous growth model with endogenous location choice. We consider the grandfathered permit allocation as a windfall profit. We show the following windfall profit effect that decreasing in permit price by raising permit allocation reduces the firm's windfall profit and so R&D activity and growth rate. Moreover, this leads to promote the firms locating from North to South through FDI and so the total pollution in North (South) decreases (increases). The channel implies "pollution haven hypothesis". We find that expanding degree of free trade makes it possible for the economy to escape from the pollution haven hypothesis.

*Keywords*: FDI, economic growth, agglomeration, emissions trading market, soft budget constraint. *JEL Classications*: H25, Q56, R11.

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