

# Dynamic analysis of bribery firm's environmental tax evasion under emissions trading market\*

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January 19, 2017

## Abstract

We analyze that emitting firms participating emissions trading market bribe bureaucrats to escape raids of the firm's environmental tax evasion in an R&D-based model. We investigate an effect of environmental tax rate, grandfathered permit level, and penalty rate on a growth rate and welfare, and find that there is an inversed U-sharped relation between an environmental tax rate and growth rate, and between environmental tax rate and aggregated bribe. We numerically conduct how changes in each policy affect welfare and find that welfare effect of grandfathered permit is higher than welfare effect of environmental tax.

*Keywords:* environmental policy, policy mix, corruption, innovation, economic growth.

*JEL Classifications:* H26, O31, P48.

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\*Under construction. The author is grateful to Kouichi Futagami for his valuable advice. The author is responsible for all of the errors in this article.

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