

**Discussion**

# Enforcing Regulatory Standards in Stock Pollution Problems

by

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## General assessment

A nice paper in a relevant line of research:

Line: Compliance and enforcement in a dynamic setting

This paper: Stock pollutant

Well executed, sound results and well written

Doesn't look so preliminary to me

Surprise: F rather than L to control pollution (and soc. welfare)

## Some weaknesses

No production costs (apart from the fine itself)

No consumers' utility

Fine/subsidy scheme makes things easier but not so realistic

- \* With only fine (no subsidy) there is a threshold effect (you comply, no penalty)

- \* Probably more consistent with a ETS

Some results seem strongly dependant on the specification, particularly in the linear case:

- \* L scenario: The limit is set to avoid compliance, due to administrative costs.

- \* Somewhat alleviated by sensitivity analysis

## Questions

1. Is the “first-mover advantage” really an advantage (i.e., is social welfare higher because of the timing?)

2. In the linear case, scenario L, there is full compliance, then the fine should be irrelevant (because it is never paid), but it is not:

$$L^L(P) = E^L(P) = \sigma - \bar{F} + (V^L)'(P)$$

$$V^L(P) = v_0^L = (\sigma^2 - \bar{F}^2) / (2\rho)$$

What is the intuition?

3. Is the comparison across scenario crucially determined by the specific parameter range selected (for F and L)?