

# Optimal deterrence of illegal behavior under imperfect corporate governance

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Cédric Argenton, Eric van Damme and Sigrid Suetens

Discussion by Marco Haan, University of Groningen

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# Outline

- 1 Overview
- 2 Main Results
- 3 Implications
- 4 Praise
- 5 Simplifications
- 6 On feasible sanctions
- 7 Contracting on detection

# Overview

- Three players: *Society*, *Principal*, *Agent*.
- Agent chooses action: *Quit*, *Nothing*, *Right thing*, *Collude*.
- $\mathcal{N}$  yields low profits;  $\mathcal{C}$  yields high profits;  $\mathcal{R}$  may yield high, otherwise low.
- $S$  prefers  $\mathcal{R}$  over  $\mathcal{N}$  over  $\mathcal{C}$ . It detects a cartel with probability  $\lambda$ .
- $P$  prefers  $\mathcal{C}$  over  $\mathcal{R}$  over  $\mathcal{N}$ .
- $P$  can contract with  $A$ , giving a wage based on profit and possibly on detection.
- In the case of detection,  $S$  can impose sanctions on either  $P$  (corporate liability),  $A$  (individual liability) or both (mixed).
- Sanction on  $A$  can never be higher than  $\bar{I}$ .
- What are the implications?

## No contracting conditional on detection

- Corporate liability:  $\mathcal{R}$  cannot be implemented. High-powered incentives would make Agent go for  $\mathcal{C}$  instead. Outcome is thus  $\mathcal{N}$ .
- Individual liability, for low (hence ineffective)  $\bar{I}$ , we get  $\mathcal{C}$ , otherwise  $\mathcal{R}$ ; the fact that  $S$  can base its fine on detection then gives sufficient incentive to stay away from  $\mathcal{C}$ .
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## Contracting conditional on detection

- Corporate liability:  $S$  effectively outsources individual punishment to  $P$ !  $\mathcal{R}$  may be implemented.
- Under individual liability,  $\mathcal{C}$  becomes more likely!  $P$  can effectively pay any fines  $A$  may incur.
- Under mixed,  $\mathcal{R}$  becomes more likely.
- Contracting on detection is weakly good for Society.

# Implications

- We *should* allow judges to also punish individuals that collude.
- We *should* allow firms to also punish individuals that collude.

## Comments and Thoughts

- Very nice, clean model. Simple set-up, yields lots of insights.
- Highly simplified.
- No problem if the model still captures the essence of the problem.

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  - With collusion, we would need at least two firms.
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  - Paper looks at firm in isolation, competitive effects ignored.
  - With collusion, we would need at least two firms.
  - Payoffs for one manager are affected by incentives of the other.
  - One principal, multiple agents.
- Also, the assumption that collusion yields higher profits with some probability is unusual. (Is this crucial!?)

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- At the same time, sanctions for individuals can be enormous. The disutility of 5 year imprisonment must be immense.
- So, shouldn't we have an upper bound on corporate fines and no upper bound on individual punishment instead!?
- In that case, achieving first best is very easy...

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- Is it credible?
- Contracting on detection suggests that a firm is unable to find out whether a manager colludes, other than through a detection from  $S$ . So it is at an informational disadvantage?
- A firm may have an incentive to commit to punish a manager that it finds colluding, even without it being detected - to be able to implement  $\mathcal{R}$ .