Optimal deterrence of illegal behavior under imperfect corporate governance

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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 $\mathcal{C}$.

- Mixed system even better; we then get $\mathcal{N}$ for low, $\mathcal{R}$ for higher $\bar{I}$. 
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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, $C$ 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.
Most notable simplifications

- One-shot game.
- Discrete action space.
- Conditional on legality, interests of S and P perfectly aligned.
- It takes (at least) two to tango...
- 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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But firms cannot be fined more than what they are worth. Limited liability.

In fact, the model requires that expected corporate fine is higher than net gains from collusion. For low enough $\lambda$ or $\pi_L$, that will not be feasible.

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!?

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Contracting on detection

Can firms do that? In practice, is it feasible that a firm recoups all wages that a manager earned in periods of collusion? 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 \( R \).
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