

Could ex ante regulation create incentives for anti-competitive behaviour?

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1 - Main message

- Untargeted regulation can generate a (negative) **competition externality**
- Example: **(total) revenue caps**:
 - + allow significant flexibility in setting prices – regulated firm can exploit private information on demand and supply
 - - potential for anticompetitive misuse – increasing regulated firms’ incentives to engage in:
 - Exploitative abuses – i.e. too high prices (though not under comp law standard) OR
 - Exclusionary abuses – i.e. strengthened incentives to predate
- How likely is such concern?
 - More likely when NCA and NRA are separate
 - But our examples from concurrent UK regulators (Ofwat, Ofgem and Ofcom)

2 – Exploitative concern

- The Crew-Kleindorfer effect with total revenue cap (energy and water)
- If free to set its price within revenue cap, regulated firm will meet the cap by setting a price at or above monopoly
- Conditions:
 1. demand price elasticity ≥ 1
 2. total costs increase with quantity
 3. the dynamics of reaching the equilibrium do not matter - Combes et al (1995) conditions 3 difficult to meet
- Suppose cap includes customers/services with different demand price elasticities:
 - Incentives apply to elastic subset
 - If the regulator sets a single binding revenue cap:
 - prices are higher and output lower in both groups compared to an unconstrained situation
 - prices for elastic consumers increase relatively more
 - if the constraint is very binding, the monopolist only increases prices in the elastic segment

3 – Examples

Water caps

- Revenue caps are pervasive :
 - Overall elasticity estimates are low, but >1 for some uses – e.g. commercial and outdoor
 - Total costs increase with supply
 - For some users temporary violations unlikely as short-term price elasticity >1
- Proportion of fixed charges $<30\%$ for water and $<45\%$ for wastewater but fixed costs are 80% for network activities

Electricity transmission caps

- In 2001 change from average to total revenue caps
- As a result prices for some consumers began to increase driven by output being less than the pre-set level on which the control was based
- This is consistent with a Crew-Kleindorfer effect

4 – Exclusionary concern

- Total revenue cap including a) contestable and b) non-contestable services **strengthen incumbent's incentives to predate** in a).
- Extension of Fumagalli et al. (2018) two stage predation model (i.e. cap only on non-contestable services). Predator can exploit sunk cost and economies of scale to exclude rival.
- Extension :
 - Incumbent also provide a non-contestable service, with cap covering both services. Incumbent free to set relative prices with the cap
 - A third stage where regulator decides whether or not to (laxly) regulate contestable service
 - Predator prefers to be laxly regulated than face full competition => prefers exclusion
- Result: extension of cap to contestable service strengthens incentives to predate. It allows to recoup predatory losses a) post exit in the contestable market b) simultaneously by increasing prices for the non-contestable service
- Predation concerns reduced, if separate caps for each service. A cap on each period removes ability to predate in the contestable service the tighter is the cap

5 – Examples

Water revenue caps

- Developers' services: contestable and non-contestable
- Both included in revenue cap & non contestable Infrastructure Charge set at £365 by regulation
- In 2018 the £365 cap was removed
- Some companies increased infrastructure charge => consistent with prediction of our model

Telecom price caps

- Fixed wholesale call origination
- Initially price tightly regulated
- But areas where contestable and areas where it was not
- First, introduced laxer cost control, but one price cap and no undue discrimination rule
- Later, still one price cap, but still laxer (fair and reasonable) and no longer undue discrimination
- Perfect conditions for our model

Postal “broadly equivalent”

- Postal delivery services
- Contestable and non contestable areas
- No price regulation
- RM's national tariffs = weighted average of contestable and non-contestable areas charges (“broadly equivalent” rule)
- RM reacted to entry by decreasing in contestable and increasing charges in non-contestable areas
- No cost of exclusion. Equivalent to predation with no profit sacrifice, as predicted by our model