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Research into the Costs of Inappropriate Intervention/Non-intervention under Article 82

Report for the OFT

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Outline of the Presentation

- Objectives of the research
- The notion of cost
- The objective function of the competition authority
- Ex post and ex ante costs
- The interplay between conducts, market characteristics and the mode of competition
- Error costs and the origin of dominance

Main objective of the research

- To investigate the nature and relative magnitude of the costs arising from erroneous antitrust decisions:
  - How they vary with type of abuse, industry and mode of competition
  - Symmetry/asymmetry of error costs

- To develop a theoretical framework to assess them.

The notion of cost

- Opportunity cost
- Cost of an “error”: the difference between the values of the objective function with the “right” choice and with the “wrong” one
- This definition requires to identify
  - The choice set
  - The objective function

The choice set

- Simplifying assumption: the choice set contains two elements
  - Prohibit a conduct –

    if erroneous => false conviction (or type I error)
  - Permit a conduct

    if erroneous => false acquittal (or type II error)
- Remedies (more of a regulatory tool)

The objective function

- Our assumption: (total) social welfare

$$W = p + CS$$

- This assumption is controversial

- A more general formulation:

$$W = a\, p + CS$$

$a = 0 \Rightarrow$ Consumer welfare standard

$a = 1 \Rightarrow$ Total welfare standard

Some reasons for setting $a = 0$

- The political economy arguments:
  - Consumers are dispersed and unable to influence the outcome of an antitrust proceeding
  - Strategic reasons (mergers)

- These arguments posit that the best way to maximise **total welfare** is to endow the competition authority with the objective of maximising consumer welfare

Our reasons for setting a = 1

- Even for those economists that support a consumer welfare standard the ultimate goal of competition law is total welfare
- Only efficiency matters and competition law should not be concerned with issues of distribution

Ex post and ex ante perspectives

- Ex post: Analyses the equilibrium in the relevant market(s) after the competition authority has made its decision
- Ex ante: Analyses the optimal decision firms take given their expectations on the behaviour of the competition authority
- Our study primarily considers the error costs in an ex post perspective

The determinants of the cost of an error

- The cost of an error depends on:
  - The firm's conduct
  - The market characteristics
  - The mode of competition

Firm's conduct:
a new taxonomy

- The current (legal) taxonomy classifies potentially abusive conducts according to their **form**:
  - Non pricing strategies (e.g. refusal to supply, exclusive dealing, tying and bundling)
  - Pricing strategies (e.g. predatory pricing, margin squeeze, non linear pricing)

- This classification is not useful and ambiguous

An effect-based taxonomy

- Structural strategies: conducts that affect the reaction functions of the rivals
  - Raising rivals' costs (RRC)
  - Lowering rivals' demand (LRD)
- Output strategies: conducts that expand the output of the "dominant" firm, without affecting the reaction functions of the rivals

Some examples

- <u>RRC</u>
  - Refusal to supply a more efficient input
  - Margin squeeze from above
- <u>LRD</u>
  - Refusal to supply a higher quality input
  - Exclusive contracts to customers
- <u>Output strategies</u>
  - Predatory pricing

Reminder: All these conducts are abusive if and only if they reduce welfare

Welfare effects

- Cost effect: the consequences of the conduct on the costs society bears to produce the affected goods
- Demand effect: the consequences of the conduct on the consumers' willingness to pay for the affected goods
- Output effect: the consequences of the conduct on the amount of the affected goods exchanged in equilibrium

Market characteristics

- The firms' cost functions (i.e. the level of efficiency of the dominant firm and its rivals)
- The degree of product differentiation
- The level of information asymmetry
- The height of the entry barriers

The mode of competition

- Short run strategies
  - Quantity competition (Cournot)
  - Price competition (Bertrand)
- Long run strategies
  - Entry/exit
  - Investments

Structure of the analysis

Conducts that affect:

- One final market (without spillover effects)

- One final market with spillover effects on:
    - the supply side (economies of scale)
    - the demand side (network externalities)

- More final markets with:
    - exogenous links
    - endogenous links (tying and bundling)

Some results

- Generalizations are impossible: we provide a list of policy questions to help in performing the analysis of each case
- With the aid of a simple simulation we argue that demand and cost efficiencies are not equally important:
  - The costliest errors consist in allowing conducts that lower the consumers' willingness to pay or in preventing conducts that increase it

Other conclusions

- Both types of errors reduce the degree of compliance in a symmetric way
- Claim 1: the welfare loss stemming from preventing an efficient conduct is higher than the welfare loss stemming from permitting an abusive conduct
  This claim is not sufficiently grounded
- Claim 2: Conducts normally investigated by competition authorities are more likely to be efficient rather than abusive
  Empirical studies support this claim