Chaire Bernard Van Ommeslaghe Conference

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# Emerging Competition Issues in Regulated Network Industries: Alliances, Consortia and Other Quasi-Mergers

Antonio Estache

ULB

# Where does the topic from this conference come from?

- **Increased participation of the private sector in network industries with high residual demands for regulation…=> matters to national regulators**
- **…but high concentration in global and regional markets in network industries seems to prevail => matters to national and global (WTO, EU) "competition agencies"**
- **High concentration of bidders (i.e. high incidence of joint bidders) in public procurement markets for right to provide infrastructure services => matters to procurement agencies**
- ***3 types of agencies with own sets of concerns …is it ok?***

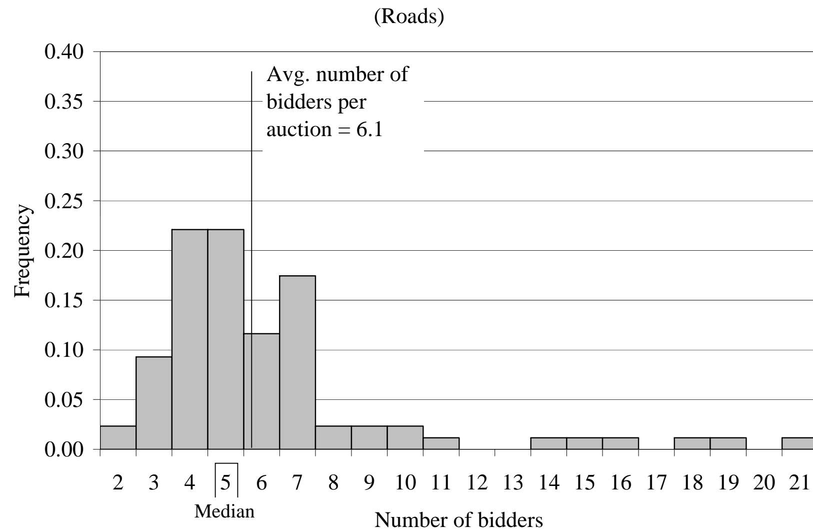
# … increased role of private sector in infrastructure
## (% of countries with Private Participation)

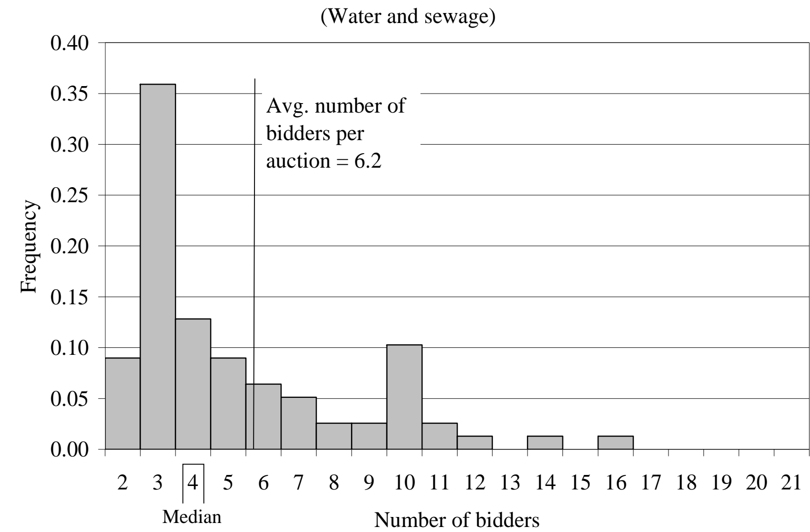
| | Elec.Gn. | Elec.Dis. | W&S | Rail | Telecm |
|---|---|---|---|---|---|
| SS Africa | 39% | 28% | 20% | 47% | 41% |
| East Asia | 67% | 20% | 64% | 43% | 38% |
| East. Europe | 41% | 48% | 62% | 20% | 58% |
| Lat. & Cent. Am. | 68% | 61% | 41% | 56% | 67% |
| Mid. East | 7% | 6% | 18% | 20% | 23% |
| South Asia | 38% | 13% | 13% | 17% | 50% |
| Developed | 70% | 43% | 80% | 65% | 83% |

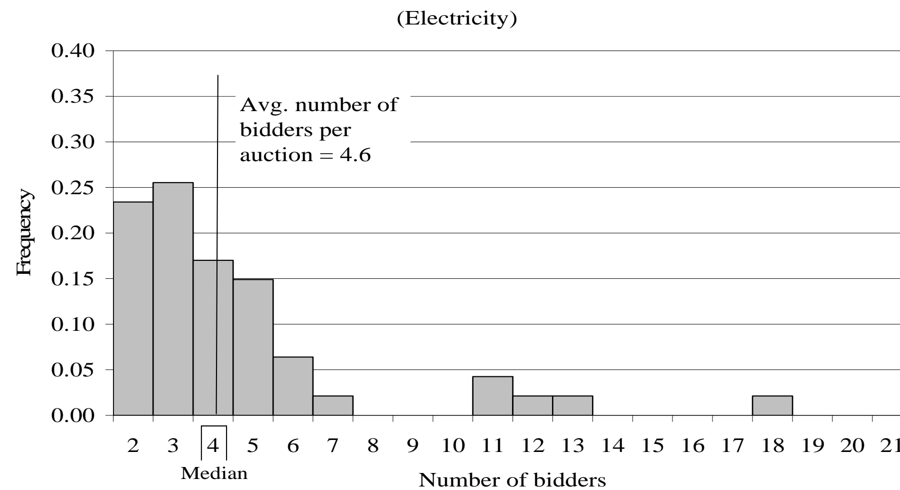
# …but simultaneously, strong regional market concentration…

| | Electricity | | Telecoms | | W & S | |
|---|---|---|---|---|---|---|
| | Generation | Distribution | Fixed | Mobile | Water | Sanitation |
| Global (inc. OECD) | Prob. Not | Prob. Yes | Prob. Yes | Prob. Not | Prob. Yes | Prob. Not |
| Africa | Prob. Not | Prob. Not | Prob. Not | Prob. Yes | YES | Prob. Not |
| Asia & Oceania | Prob. Not | Prob. Yes | Prob. Yes | Prob. Not | Prob. Not | Prob. Not |
| Latin America | YES | Prob. Yes | YES | Prob. Yes | Prob. Not | Prob. Not |
| North Africa | NO | n.a. | Prob. Not | Prob. Not | YES | Prob. Yes |
| Eastern Europe | NO | YES | YES | Prob. Yes | Prob. Not | Prob. Yes |
| Western Europe | Prob. Yes | YES | YES | Prob. Yes | Prob. Yes | Prob. Yes |

# Moreover, competition in infrastructure procurements continues to be limited...especially in water and electricity



# The market is evolving and may be more concentrated than expected…so what?

- We have competition law
- We have regulatory law
- We have other legal instruments intended to protect the users, the investors and the taxpayers….
- …well the *so what* comes from the fact the market is evolving in ways not well covered by these instruments
  - Supranational concentration
  - New forms of contracts of collaboration which results in an informal market structure different from the formal, apparent, market structure

# What’s wrong with the way the market is evolving to begin with?

- From a formal market structure to more informal market structure evolution?
  - New forms of concentration, no formal mergers but alliance, consortia and other forms of agreement
  - All boil down to the equivalent of mergers…or with some symptoms of cartels…
  - but for which there is no legal instrument to make a judgment as to whether this is good or bad for the economy

# What’s the problem then?

- **Not all bad and some of it has been “provoked” by regulators concerned with the investment needs of the sector**
  - **Relatively modest number of bidders in auctions**
  - **=> A quasi merger can cut the cost of capital**
  - **=> Reduces the participation constraint in efforts to get access to private financing of investment needs**
    - **=> good for the regulator as an ex ante option**
    - **…but the quasi merger may make the competition agency anxious ex-post**
      - **it it feels too much as a cartel or a undesirable merger…**
  - ***So trade off between a dynamic and a static view of efficiency?***

# What can theory tell us about all this?

- Relevant theories
  - The economics of cartels?
  - The economics of mergers?
  - Auction theory?
  - Anything else that may be relevant?
    - Open to suggestions!

# How does cartel theory help us?

- *Think of an alliance, consortia or quasi mergers as a possible cartel… no clear message*
  - Basic theory that cartels are unstable => don't worry?

  - However, for a temporary cartel, stability is possible
    - if there is a credible reward and punishment system
    - which requires that the Nash equilibrium is not unique
      - => worry?

  - Worry if the cartel expects to last indefinitely?
    - A cartel is more likely to be stable
      - the greater the probability that the market will continue (30 years concessions long enough?)
      - and the lower is the interest rate (should we stop worrying today…?)
    - The more severe the punishment the easier it is to sustain a cartel…(but the punishments today tend to be private rather than public)

# Cartel Formation

- **What factors are most conducive to cartel formation?**
  - **The potential for monopoly profit are there**
    - collusion must deliver an increase in profits: this implies
      - demand is relatively *inelastic…quite common for basic infrastructure services offered by network industries*
        - » *restricting output increases prices and profits*
      - entry is restricted—*quite common under current procurement rules for infrastructure services*
        - » *Common marketing agencies*
        - » *Trade association*

# Cartel formation (cont.)

- Costs of reaching a cooperative agreement is low in many network industries…?
  - even if the potential for additional profits exists, forming a cartel is time-consuming and costly
    - has to be negotiated
    - has to be hidden
    - has to be monitored
      - *How well is this really done for network industries?*
  - But there are factors that reduce the costs of cartel *formation …which are not uncommon in network industries*
    - small number of firms
    - high industry concentration
      - makes negotiation, monitoring and punishment (if necessary) easier
    - similarity in production costs
    - lack of significant product differentiation

# Cartel formation (cont.)

- Maintaining a cartel agreement can be cheap…
  - easier when there is *frequent market interaction* between the firms
    - over time
    - over spatially separated markets
      - *Just look at the who is who in international bids*
  - story driven by repeated games nature of interactions
    - less frequent interaction leads to an extended time between cheating, detection and punishment
    - makes the cartel harder to sustain
      - *The number of annual deals in these sectors suggests that interactions are common and regular*

# What do textbooks tell us about cartel detection?

- Cartel detection is far from simple…
  - most have been discovered by “mistake or luck”
- If members of a cartel are sophisticated they can hide the cartel: make it appear competitive
  - ***“the indistinguishability theorem”***
- …but fair to recognize that deals may look bad but not be that bad in practice
  - *See discussions later today on mergers in energy and tomorrow in telecoms*

# …and what does merger theory tell us that may be relevant in looking into these new market structures?

- Do quasi mergers occur for the same reasons why mergers occur?
  - need to become “global”
  - response to other mergers
  - search for synergies in operations
  - to achieve significant cost savings

- Do mergers (and quasi-mergers) need to be regulated?
  - might not be beneficial ex-post if they operate like legal cartels sponsored by one agency concerned with ex-ante efficiency

- Mergers and quasi mergers come in multiple flavors
    - horizontal
    - complementary
    - vertical

# Horizontal

- Between firms that compete in the same product market
- Theory comes up with a surprising result: ***the merger paradox***
  - take the standard Cournot model
  - merger that is not merger to monopoly is unlikely to be profitable
    - unless "sufficiently many" of the firms merge
    - with linear demand and costs, at least 80% of the firms
      - **So don't worry in network industries???**

# The Merger Paradox

- Why is this happening?
  - the merged firm cannot ***commit*** to its potentially greater size
  - the merged firm is just like any other firm in the market
  - thus the merger causes the merged firm to lose market share
  - the merger effectively closes down part of the merged firm's operations
    - *In infrastructure services provided by network industries, …these appears somewhat unlikely*
- **=> mergers can improve profits without reaching a monopoly**
    - ***(simply look at the average rate of return in network industries)***
- (Don't need to add
    - product differentiation or
    - Bertrand competition
    - Or give the merged firms some additional market power)

# Vertical

- Now consider very different types of deals
  - between firms at different stages in the production chain
    - *Look at the modal chain in transport*
  - also applies to suppliers of *complementary products*
    - *Look at multimodal integration again in transport*
- These deals turn out, in general, to be beneficial for everyone.
  - Integration increases profits and consumer surplus
  - See UK water story?

# Vertical (cont.)

- **How can it be good for everyone?**
  - the firms have some degree of market power
  - so they price above marginal cost
  - so integration corrects a market failure: double marginalization
- **What if part of the industry were competitive?**
  - retailer plays off operators against each other
  - so obtains input at marginal cost
  - gets the integrated profit without integration
- **Why else worry about vertical integration?**
  - two possible reasons
    - price discrimination
    - vertical foreclosure
      - but it is not necessarily harmful to consumers
        - » reduces number of buyers in the upstream market
        - » increases prices charged by independent sellers to non-integrated downstream firms
        - » but integrated downstream divisions obtain inputs at cost
        - » puts pressure on non-integrated downstream firms
      - provided there are “enough” independent upstream firms the anti-competitive effects of foreclosure will be offset by the cost advantages of vertical integration

# What does auction theory on joint bidding add to all this?

- **Theoretical prediction…not clear…sometimes good, sometimes bad!:**
  - Resource restriction view: Pooling resources reduces the barrier to entry (Hendricks and Porter, 1992).
  - Information aggregation and reducing competition (Krishna and Morgan, 1997).
  - The former is dominated by the latter (Mares and Shor, 2008), suggesting the net anti-competitive effect.
  - Free coalition leads to two joint ventures, intensifying competition (Cho et al., 2002).
- **Empirics…tends to be more positive**
  - Pro-competitive in oil lease auctions (Moody and Kruvant, 1988; Hendricks and Porter, 1992).
  - Pro-competitive only for local bidders in ODA projects (Iimi, 2004).

# So the basic questions are…

- **Are alliances, consortia, other type of agreements which boil down to temporary, occasional or recurring quasi-mergers imply the same risks as cartels or mergers????**
  - **What does theory suggest?**
  - **What does empirical evidence suggest**
  - **What are the risks in involving industries?**
  - **Who are the winners and losers?**

# How does the conference contribute to address the issue?

- **4 sectors covered**
  - **Energy (Claude Crampes, IDEI, Toulouse)**
  - **Railways (Russell Pittman, US DoJ)**
  - **Telecoms (Jordi Gual, IESE, Barcelona and la Caixa**
  - **Water and sanitation (Derek Holt (Oxera) + Rob Francis (Frontier Economics))**
    - **With comments by people with experience from the trenches… (Phil Burns (Frontier Economics, Michel Alle (SNCB), Eric de Keuleneer (Mobistar)**
- **1 panel with key players in competition agencies**
  - ***Juan Delgado (Bruegel), Christian Huveneers (Belgian Competition Council), Russell Pittman (Department of Justice, USA)…moderated by Estelle Cantillon (ULB)***

# ….

- **Hope the next 2 half days will be effective in providing a more focused answer to the basic concerns**
- **Thanks again for being here**