Committing to raise expectations
the interplay between competition authorities and firms

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Encore

Introduction

- Goal competition authority:
    - Effective competition;
    - Cartel deterrence & desistance.
- Cartel deterrence & desistance driven by:
    - Actual detection probability;
    - Expected detection probability.
- Both deterrence and desistance are important to competition authorities.

Introduction

- How to influence actual cartel detection probability
  - More efficient use of 'capital':
    - Improve investigative methods
    - Innovate investigative methods
  - More efficient use of 'labor':
    - Internal organization
    - Training personnel
    - Optimal allocation of resources

Introduction

- How to influence expected cartel detection probability
  - Change actual detection probability
    - Indirect observation by cartels
    - Detection lag
  - Communicating about investigative efforts or efficiency
    - Credibility
    - Commitment

Central questions

- Competition authorities communicate about investigative efforts to influence expected detection probability & increase deterrence
- Examples:
  - NL: Financial Sector Monitor & annual agenda
  - EC: Sector inquiries financial services & energy
  - IR: Several investigation in financial sector
  - UK: Setting up monitoring unit & annual agenda
- Will firms believe everything competition authorities communicate about their investigative strategies?

Lack of credibility

- Assume a competition authority can reallocate resources unnoticed (in the short term) by firms

- Suppose competition authorities claim to allocate resources t_1 to sector 1 and t_2 to sector 2, aiming to induce corresponding expectations.

- ***This is not credible if given these expectations, the competition authority would want to reallocate resources.***

Lack of credibility

Utility of competition authority: improvement in welfare due to expected probability plus illegal profits of detected cartels in sector 1 and 2

$$U(\bar{\mathbf{t}}, \mathbf{t}) = \sum_{i=1,2} [W_i(\bar{t}_i) + \beta_i(t_i)\sqcap_i(\bar{t}_i)]$$

Total budget is constrained

$$t_1 + t_2 = 1$$

Lack of credibility

Optimal allocation: marginal benefits of investing in sector 1 equal to marginal benefits in sector 2

$$\beta'_1(t_1)\Pi_i(\bar{t}_1) = \beta'_2(t_2)\Pi_i(\bar{t}_2)$$

In equilibrium: expected detection probability equal to actual detection probability

$$\bar{t}_i = h_i(\bar{t}_1, \bar{t}_2); \quad i = 1, 2$$

Commitment

If competition authorities can commit, expected allocation never differs from actual allocation

$$U(\mathbf{t}, \mathbf{t}) = \sum_{i=1,2} [W_i(t_i) + \beta_i(t_i)\Pi_i(t_i)]$$

$$t_1 + t_2 = 1$$

In equilibrium (**C**ommitment v.s. **N**o **C**ommitment)

$$U(\mathbf{t}_C, \mathbf{t}_C) \geq U(\mathbf{t}_{NC}, \mathbf{t}_{NC})$$

Conclusions

- investigative efforts communicated to influence expected detection probability & increase deterrence
- Not all communications are credible
- Expected detection probabilities influenced more effectively if competition authorities can commit
- Some possible means to achieve commitment are
  - Hiring external consultants
  - Acquiring external financing
  - Publishing results of economic analysis
  - Making resource allocation transparent

Further research

- Objective function competition authority
- Asymmetric information
  - Internal organization of competition authorities
  - Uncertainty about competition authorities' or firms 'type' ('signaling)