Ex post assessments in competition policy

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Ex-post assessments

- Assess the impact of a certain policy/scheme/practice
  - Do antitrust interventions matter?
  - Is a particular state aid scheme effective?
  - What is the effect of mergers in general?

- Can be used in case-related work:
  - US hospitals; EU mobile mergers; *Ineos/Solvay*

- Different methods
  - Event studies, diff-in-diff,…; Pooling 'events' v. case-study

- Main issues
  - Need for a credible counterfactual: possible lack of good control; choices on (and availability of) data, price measures, models: may lead to different results
  - Carlton, Werden: better as 'case study' to review AA's work.

"The effect of antitrust investigations on the firms' share prices"

- Aguzzoni, Langus, and Motta (*J. Industrial Econ.,* 2013)

- Antitrust investigations and fines should deter anti-competitive behaviour

- Many firms are repeat offenders, and fines are rarely followed by changes in management

  ➔ Are firms affected by antitrust actions? (a necessary condition for antitrust to matter)

- We use event study techniques to analyse the impact of EU antitrust events on fined firms' share prices.

- Data: all EU antitrust investigations (1979-2009); both cartels (>90% of obs.) and abuse/other; events: dawn raid, decision, court judgment (never stat. significant).

Event studies try to quantify the value of (a change of) a fundamental.

If we know:

(1) the moment at which the news about a changed fundamental became available to investors and

(2) the share price that would prevail in the absence of these news (counterfactual)

➔ compute the "value" of news (and of the fundamental) to investors and the firm, as the difference between counterfactual and realised price.

Antitrust intervention matters

Main results of the analysis (cartels):

- On average, a <u>surprise inspection</u> reduces a firm's share price by 2.7% and a cartel infringement <u>decision</u> reduces it by 3.7%

- Fines account for less than 9% of this loss; most of the loss is <u>arguably</u> due to the termination of illegal activities

- Suggests that cartel interventions do have a sizeable effect on prices.

Vast literature on the price effects of cartels:

- Private damages actions in courts

- Academic: 'qualitative' case-studies, ex post assessments

- See e.g., surveys by Connor (and co-authors) on the average/median price overcharges

- Possible use:

  - Advocacy by Competition Agencies ('publicity' of single cases; help 'guesstimate' the impact of enforcement)

  - How high should the fines be to deter cartel formation?

- Kwoka (2012): "meta-study" of US mergers. 76% anti-competitive; remedies were inadequate.

- Ormosi et al. (2015): "meta-study" on EC/NCAs mergers. Prices rise (less if remedies imposed)

(!) Not representative samples: "close calls"; sectors with public data; are all works properly done?

 Still, a worrying picture of under-enforcement…

- Duso et al. (2007); Duso et al. (2013): event study on errors/effectiveness of EU merger control

  • Also pointing to some under-enforcement…?

Ex post evaluation in state aid control

- SAM: from ex ante control to ex post evaluation

- Member States have to assess own state aid schemes (aim: more efficient, less distortive SA)

- DG Comp guidance paper: different quantitative methods to do proper ex post assessment

- Crucial to plan evaluation ex ante, i.e. when state aid measures are designed. The plan should:

  - Describe specific identification strategies

  - Ensure availability of necessary data

  - Describe the evaluator (skilled and independent) and involve her/him in the design of the aid measure

– **FTC**: 4 out of 5 hospital mergers price increases: even non-profit organisations raise prices.

  • See also ACM ex post evaluation of two hospital mergers

– **CET** (with ACM and RTR): Ex post assessment of two mobile mergers (*T-Mobile/Orange* in the Netherlands: unconditionally approved; *T-Mobile/tele.ring* in Austria: approved with *remedies*)

  ➔ Some "lessons" from these two evaluations

– **CET**: *Ineos/Solvay*

  ➔ A brief description

– Control group issues

  • Limited number of countries; assumption that all countries share common trend in pre-merger prices may not hold (➔ Synthetic control method: counterfactual=selecting countries and weights to match pre-merger prices of affected country)

– How to choose the price index

  • Consumers buy a bundle of services (calls, SMS, data); cost depends on usage+tariff= 'fixed' + 'out of bundle'

  • ➔ Define hypothetical user profiles (low, mid, high usage) which are fixed over the period of the investigation

– Data limitations (not all firms, handset subsidies…)

– Previous merger in NL possible confounding effect

– Idiosyncratic effects reduce precision of estimates

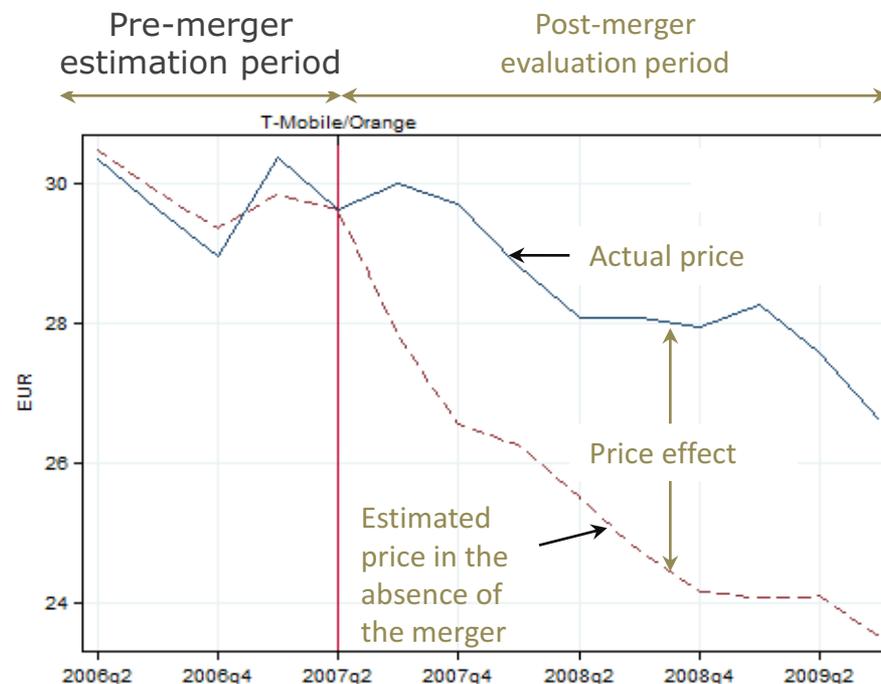| Basket	Short term (up to 4 quarters)	Medium term (5-8 quarters)
Low usage	[6%;15%]	[1%;15%]
Medium usage	[9%;13%]	[10%;15%]
High usage	[5%;13%]	[3%;17%]

- **Prices in the Netherlands increased after the T-Mobile/Orange merger compared to the control countries**
- Estimated price increase is not necessarily caused exclusively by the T-Mobile/Orange merger
- Earlier KPN/Telfort merger may have affected results
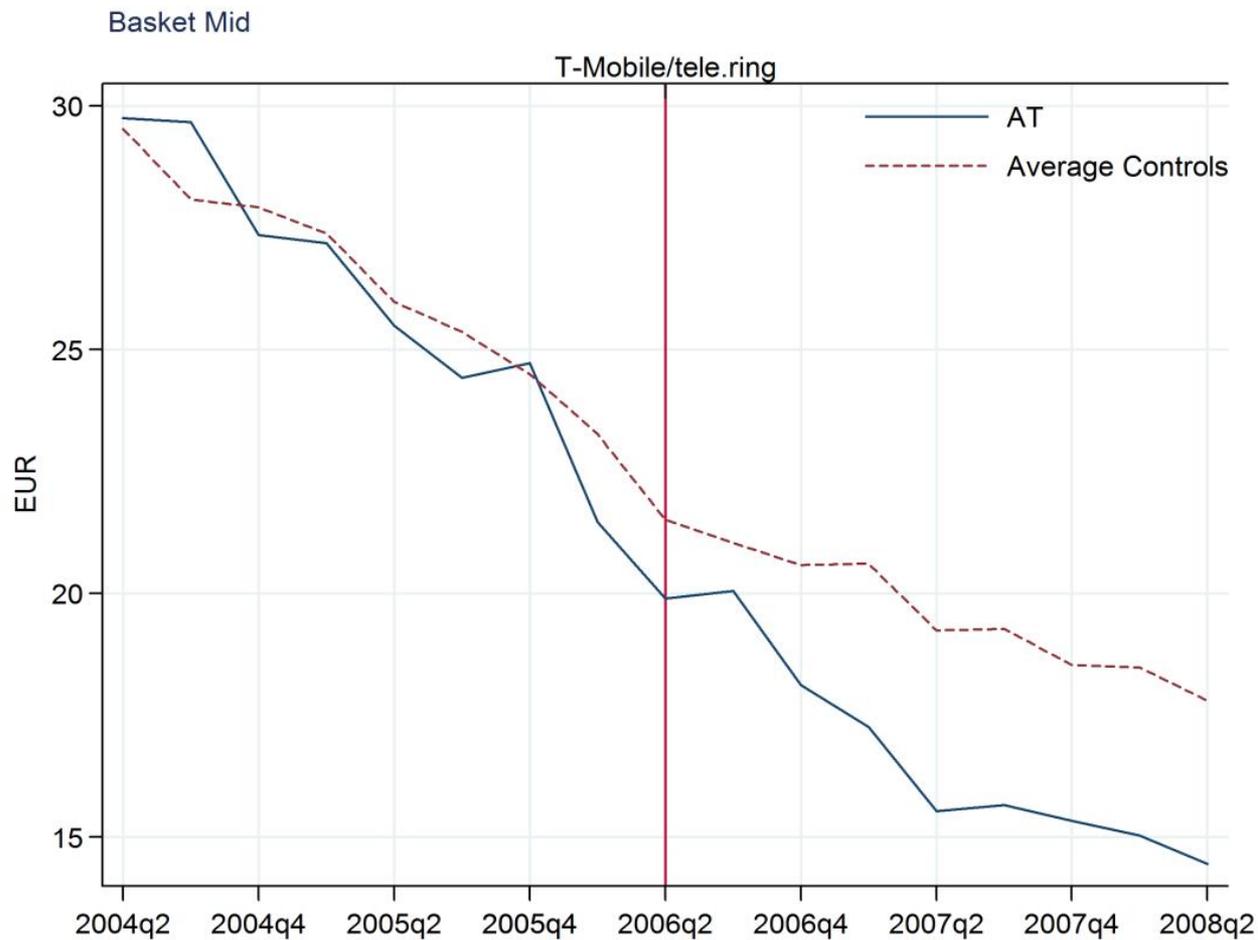- Price development indicates that consolidation in NL increased prices

Econometric approach

- Calculate actual price indices for the Netherland and 12 control countries

- Estimate the hypothetical price absent the merger exploiting price development in "control" countries (and other explanatory variables such as MTR)

- Estimate merger price effect

Three estimation methods with slightly different assumptions

Pre-merger estimation period
Post-merger evaluation period

T-Mobile/Orange

Actual price

Price effect

Estimated price in the absence of the merger

T-Mobile/tele.ring (AUT)

Average price comparison Austria vs Control countries – basket Mid

Basket	Short term	Medium term
Low usage	[-2%;-23%]	[0;-34%]
Medium usage	[-5%;-13%]	[-5%;-18%]
High usage	[-1%;-10%]	[-3%;-17%]

- **The Austrian T-Mobile/tele.ring merger as modified by the offered commitments did not lead to price increases**
- Not possible to separate effect of unmodified concentration and effect of remedies

Ex post evaluation in a merger case

- *Ineos/Solvay*: full-function JV; of interest: S-PVC

- Ineos: leader with 30-40% in NWE; Solvay n.2 (KEM ONE, n. 3, with financial difficulties)

- History of acquisitions in S-PVC market by Ineos:

  - 2008: Ineos/Kerling (UK, Scandinavia)

  - 2011: Ineos/Tessenderlo (Benelux, France)

- Ex post assessments provided information on:

  - If Ineos held market power before acquiring Solvay

  - Relevant market (price rises differ btw. NWE and RoE)

  - Revisit assumptions used in previous mergers (e.g., rivals' spare capacity; buyer's power, role of imports)

- Regional identification
  - Outcome variable: *Ineos' prices*
  - Treatment: NWE
  - Control: RoE

- Regional and inter-firm identification (triple diff)
  - Outcome variable: *Ineos-Solvay price premium*
  - Treatment: NWE
  - Control: RoE
  - Goal: control for different geographic trends
  - (But it under-estimates the price effects of the merger!)

➔ Economically and statistically significant price effects

- – Ex post evaluations useful for policy, advocacy, case work

- – But only rarely in competition can we use randomized control trials (exception: well-designed state aid cases)

- – Not always easy to find good controls/counterfactuals: insufficient data; other market participants may also be affected by the event; similar markets may not exist; other factors may impact the variables under study.

- – Firms may be strategic if they expect to be observed (astonishing to find price effects in mobile mergers)

- – There may be a big leap from ex post evaluation of a case to inference for other cases/countries.