Economics in antitrust damages litigation: GIS

Prepared for
ACE conference

5 December 2014

James Kavanagh, Partner, Oxera

*presentation represents the views of the author
Cartel fines
Ten highest fines per undertaking since 1969

<table>
<thead>
<tr>
<th>Year</th>
<th>Undertaking</th>
<th>Case</th>
<th>Fine (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Saint Gobain</td>
<td>Car glass</td>
<td>715</td>
</tr>
<tr>
<td>2012</td>
<td>Philips</td>
<td>CRTs</td>
<td>705</td>
</tr>
<tr>
<td>2012</td>
<td>LG Electronics</td>
<td>CRTs</td>
<td>688</td>
</tr>
<tr>
<td>2013</td>
<td>Deutsche Bank</td>
<td>Interest rate derivatives</td>
<td>466</td>
</tr>
<tr>
<td>2001</td>
<td>Hoffmann-La Roche</td>
<td>Vitamins</td>
<td>462</td>
</tr>
<tr>
<td>2013</td>
<td>Société Générale</td>
<td>Interest rate derivatives</td>
<td>446</td>
</tr>
<tr>
<td>2007</td>
<td>Siemens</td>
<td>Gas insulated switchgear</td>
<td>397</td>
</tr>
<tr>
<td>2014</td>
<td>Schaeffler</td>
<td>Automotive bearings</td>
<td>370</td>
</tr>
<tr>
<td>2008</td>
<td>Pilkington</td>
<td>Car glass</td>
<td>357</td>
</tr>
<tr>
<td>2009</td>
<td>E.ON/GDF</td>
<td>E.ON/GDF collusion</td>
<td>320/320</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>5,246</strong></td>
</tr>
</tbody>
</table>


- eleven companies, €5.2bn in fines. Follow-on actions in all?
- economists typically instructed by claimants and defendants to quantify cartel damages, € billions at stake
Economics in antitrust litigation
Silence of the experts?

- damages actions are generating a major part of the demand for economics services
  - a single expert report may cost >€1m
  - expert fees in Yukos arbitration (not competition) reported as c. $15m
- quite significant ‘research budget’ for economics, if used in aid of the science
- but at ACE we rarely speak about such cases
  - nearly every case settles out of court
  - we are bound by confidentiality terms of settlement
- how can we share the economics generated by such cases?
- should we try to share this?

Example: GIS

- gas insulated switchgear cartel (1988 to 2004)
- claimant: National Grid Electricity Transmission (NGET)
  - Berwin Leighton Paisner and Oxera
- defendants:
  - ABB—Freshfields and Frontier Economics
  - Alstom—Hogan Lovells and CRA
  - Siemens—Clifford Chance and Compass Lexecon
  - Areva—Shearman & Sterling
Example: GIS

- Commission commentary:

- “The Commission has put an end to a cartel which has cheated public utility companies and consumers for more than 16 years.”

- The Commission’s file includes some 25 000 pages of documents which contain evidence spanning the entire period of the cartel. From at least 1988, when a written agreement between the members was adopted, GIS suppliers informed each other of calls for tender for GIS and co-ordinated their bids in order to secure projects for the cartel members according to their respective cartel quotas. Alternatively, they would agree to respect minimum bidding prices.

- Members of the cartel met regularly at the management level to discuss strategic issues and at a lower level to divide projects and to prepare sham bids by the companies not supposed to win the tender, in order to leave an impression of genuine competition.”

Example: GIS
Continued

• details from the public domain:
  • claim: £108m excl. interest, around £400m incl. interest
  • interest: claimed at the regulatory weighted average cost of capital (WACC)

• statement from National Grid in its statutory and regulatory accounts, published in July 2014:
  ‘On 17 November 2008, the Company issued a claim for damages in the English High Court against a number of suppliers of Gas Insulated Switchgear. On 28 May and 6 June 2014 the Company was the beneficiary of final settlements of this claim and the Company and the Defendants are no longer in dispute with each other. The Company is currently evaluating the accounting treatment of these settlements.’

• settlement amount cannot be disclosed
Abstracting from GIS
What are we learning from recent experience?

• e.g. air cargo, car glass, CRTs, GIS, LIBOR, vitamins

• in follow-on cartel actions there are typically four issues:
  • value of commerce (e.g. estimating purchases for cartels where documentary evidence is missing)
  • overcharge
  • pass-on
  • interest

  • (volume effects are theoretically a valid claim, but often not a key component in cases to date)
  • given time constraints, the discussion in these slides focuses on overcharge and interest
Overcharge
What are we learning from recent experience? (I)

• some current approaches:

  • **margins analysis**—compare during-cartel margins with post-cartel margins, either plain comparison or using econometrics to control for non-cartel factors

  • **price-cost regressions**—traditional approach, usually implemented as during-and-after dummy variable regression with controls

  • **price-technical regressions**—more novel approach, avoids the cartel X-inefficiency problem and cost measurement problems

  • **cross-country analysis**—difference-in-difference if comparable non-cartel geographic market identified
Is it credible to estimate 0% overcharge for a hardcore cartel?

- variation in observed overcharges is large
- not informative to consider ‘typical’ values
- Directive (10 Nov 2014) has rebuttable presumption of harm for cartel infringements
- useful background to see this chart, but case-by-case assessment required

‘The order also rejected the EU’s argument that courts can presume market-sharing agreements lead to higher prices for purchasers. It cited a report by Oxera on quantifying cartel damages that said a “small but significant” proportion of cartels does not cause overcharge.’

Overcharge
What are we learning from recent experience? (II)

• experts sometimes find zero or negative overcharge, frequently based on econometric analysis
  • is this credible for a cartel where the Commission has given a particularly heavy fine based on the characteristics (albeit not the effects) of the cartel?
  • what do statistically significant negative overcharge estimates mean? Negative effect of cartel? Mis-specified model?
  • what is the interpretation of non-statistically significant positive overcharge estimates? What is the correct threshold for significance (1%, 5%, 10%, more?)

• is a typical Commission cartel decision relevant to overcharge estimation?
Debates between economists in damages cases
Overcharge (I)

- margins approach
  - basic idea is to compare during and after margins, with or without controls

- assume for now the product is **complex and bespoke**, requiring various inputs comprising both direct and indirect costs
  - in a multi-product, vertically integrated firm how easy is it to get reliable data on product margins?
  - problem with cost allocation of indirect costs
  - internal transfer prices in a corporate group mean that margin for one entity = cost for another (think state aid tax cases)
  - overcharge estimate biased if differences in financial reporting over time, also difficulties comparing across undertakings
Debates between economists in damages cases
Overcharge (II)

• if not margins then ‘actual costs’?
  • if allocated indirect costs are an important part of the cost stack, the same problem applies
  • cost = price - margin
  • albeit serious problems re. transparent data and cost allocation may be rare—the ‘missing margins’ issue is about bias between cartel and non-cartel period

• price-technical regression is a potential solution (or cross-check)
  • if costs are thought to be influenced by the cartel—X-inefficiency or ‘missing margins’
  • regress price on factors that should be independent of the cartel—i.e. variables which explain underlying production costs
Debates between economists in damages cases
Overcharge (III)

- long-running cartels—the role of inflation
  - important to deflate prices correctly (same applies to cash margins)
  - **cartel and inflation effects work in opposite directions** (for during and after model)
    - e.g. low overcharge and high inflation could cancel each other out, resulting in false negative re. cartel overcharge
  - use a deflator that reflects input costs for the cartelised product
  - if the product was subject to high rates of cost inflation, failing to implement this approach can underestimate the overcharge. Likewise, overcharge can be overestimated if product was subject to low cost inflation

- overcharge regression should normally be carried out in real terms (in certain cases, a time-trend as a control could be used instead)

- in the end, is it necessary to adopt multiple methods in a difficult case? (e.g. cross-country, difference-in-difference or IO models as cross-check)
## Classification of methods and models

### Comparator-based

<table>
<thead>
<tr>
<th>Approach</th>
<th>Basis for counterfactual</th>
<th>Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-sectional</td>
<td>Markets</td>
<td>Comparison of averages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cross-sectional econometrics</td>
</tr>
<tr>
<td></td>
<td>Firms</td>
<td>Comparison of averages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time-series econometrics</td>
</tr>
<tr>
<td></td>
<td>Countries</td>
<td>Comparison of averages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Panel data regression</td>
</tr>
</tbody>
</table>

- **Techniques**
  - Interpolation

### Financial analysis-based

<table>
<thead>
<tr>
<th>Approach</th>
<th>Basis for counterfactual</th>
<th>Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time-series</td>
<td>Before and during</td>
<td>Comparator firms and industries</td>
</tr>
<tr>
<td></td>
<td>During and after</td>
<td>Cost of capital</td>
</tr>
<tr>
<td></td>
<td>Before, during and after</td>
<td>Cost plus</td>
</tr>
</tbody>
</table>

- **Techniques**
  - Profitability
  - Event studies
  - Discounting
  - Valuation

### Market structure-based

<table>
<thead>
<tr>
<th>Approach</th>
<th>Basis for counterfactual</th>
<th>Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference-in-differences</td>
<td>A firm, market or country before, during and after</td>
<td>Comparator firms and industries</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cost of capital</td>
</tr>
</tbody>
</table>

- **Techniques**
  - Multiples
  - Two-model estimation

### Industrial organisation models

- Cournot oligopoly
- Bertrand oligopoly
- Monopolistic competition
- Perfect competition
- Auctions

### Financial tools

- Financial performance
- Financial tools

### Industrial organisation models

- Cost of capital
- Profitability
- Multiples
- Discounting
- Valuation

### Estimation of structural models of competition

- Two-model estimation

---

Oxera

ACE conference 5 December 2014
Debates between economists in damages cases
Interest

• the importance of interest—in GIS the compound WACC was worth more than two-thirds of the claim value
  • are we devoting too little attention to the interest component of damages claims?

• compound vs simple
  • any economic justification for simple interest?

• which rate?
  • claimant’s WACC—e.g. this is the average funding cost of a business; so is it the average funding cost of a cartel damage?
  • risk-free rate—e.g. is a cartel damage a risk-free ‘investment’, assuming that you get paid back?
  • claimant’s debt rate—e.g. is this the marginal cost of funding?
  • defendant’s debt rate—e.g. a forced loan?
Pass-on in GIS
The role of the regulator

• in the latest regulatory determination from 2013, called RIIO-T1, Ofgem explained its intention to share damage awards to NGET:

‘We are aware that there might be cases where income or expenditure derives from unusual circumstances eg compensation resulting from legal proceedings, including any settlement. In such cases, we still propose to apply the sharing factor [ie, the regulatory incentive rate, about 50:50 in NGET’s case]

[...]
However, we also recognise that judgments in legal proceedings might take this regulatory treatment into account and may be of such a nature that we are prompted to review the application of the sharing factor in this way in future cases. Therefore, we will keep this approach under review in the light of emerging decisions’ (para. 1.59)

• no decision by Ofgem on a possible clawback of any damages awarded to NGET as part of the GIS claim has been made yet

• the likely position of the regulator with regard to any damages award has a strong impact on the dynamics of the case, in particular on pass-on
Oxera Consulting LLP is a limited liability partnership registered in England No. OC392464, registered office: Park Central, 40/41 Park End Street, Oxford, OX1 1JD, UK. The Brussels office, trading as Oxera Brussels, is registered in Belgium, SETR Oxera Consulting Limited 0883 432 547, registered office: Stephanie Square Centre, Avenue Louise 65, Box 11, 1050 Brussels, Belgium. Oxera Consulting GmbH is registered in Germany, no. HRB 148781 B (Local Court of Charlottenburg), registered office: Torstraße 138, Berlin 10119, Germany.

Although every effort has been made to ensure the accuracy of the material and the integrity of the analysis presented herein, the Company accepts no liability for any actions taken on the basis of its contents. No Oxera entity is either authorised or regulated by the Financial Conduct Authority or the Prudential Regulation Authority. Anyone considering a specific investment should consult their own broker or other investment adviser. We accept no liability for any specific investment decision, which must be at the investor’s own risk.

© Oxera, 2014. All rights reserved. Except for the quotation of short passages for the purposes of criticism or review, no part may be used or reproduced without permission.