Pros & Cons of Counterfactuals in Competition Law

Cento Veljanovski
cento@casecon.com

Presentation to “Pros and Cons of Counterfactuals” conference organised by the Konkurrensverket, 6 December 2013, Stockholm.
My first counterfactual

- A man was once asked whether he loved his wife
- He replied - Compared to what?

First use of counterfactual was by Titus Livius (Livy) in *Ab Urbe Condita* ("History of Rome")
What is a counterfactual

• Opposite of the factual.

• What will, or is likely to, happen in the absence of the some actual or likely occurrence.

• A “what if” statement indicating what would be the case if its antecedent were true.
Some examples

• Cliometrics/new economic history where used to great effect
  Fogel’s *Railroad and American Economic Growth* (1964) asked the conditional counterfactual question: If the railroads had not existed then what would have been the effect on US economic growth. To answer posed counterfactual of the continued improvement of canals and roads, and showed that without railroads that the US would have had about the same economic growth as occurred. Thus the railroad did not ‘cause’ economic growth.

• The economists’ concept of opportunity costs, SSNIP test, regression analysis. Natural way for economists to think about a problem.

• Legal concepts of reasonableness, causation, damages “but for”
Issues on counterfactuals

- **Pros** - test for causation; consistent with effects-based approach; makes benchmark explicit; enables testing

- **Cons** – problems of proof, vagueness, indeterminacy, over/under inclusion, absurdity, direct approach superior
Counterfactual Paradox

• Basic Paradox of Counterfactuals:

  the less vague the theory, the more likely is a counterfactual using the theory to encounter absurdity

• Why?

If Fogel had developed a theory of invention to draw a less vague picture of road transport without railroads he would have faced the problem that the very theory would predict the existence of railroads. After all, railroads were actually invented and therefore should be predicted by a sound theory of innovation. Elster wrote, “If he attempted to strengthen his conclusions ... he would be sawing off the branch he is sitting on. In this kind of exercise it is often the case that more is less and that ignorance is strength (1978, p. 206). The counterfactual must be ‘capable of insertion into the real past’ (My emphasis).
Between theory and realism

- Vague comparators - competition; contestable market theory in *Clear v “must be ‘capable of insertion into the real past’”*

- More specific counterfactual may not differ sufficiently from factual, or may not be easy to describe

- Cannot prove a counterfactual (or a hypothetical)

- What evidence counts? – approach and requisite standard of proof where there is less than certainty
Between theory and realism

- “re-frame” case in a different language.

- only one of several approaches eg direct and checklist approaches

- obstacles to the widespread adoption in EU law:
  - to Art. 101(1) “infringements by object”
  - where a rule of reason used,
  - where liability not based on causation eg dominant firm’s “special responsibility”

- not suitable for all types of abuses – anticompetitive agreements and mergers plausible; problematic for dominance where market structure at issue.
Counterfactual absent in economics

- Word not found in economics texts
- Might be implicit in modelling and explicit in econometrics
- Coase query as to whether causation core of economics
- In any event wholly undeveloped concept
Legal emergence of counterfactual

<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Case/Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>1966</td>
<td><em>Société Technique Minière</em></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2003</td>
<td>CC Merger Guidelines</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1995</td>
<td><em>Clear v. Telecom NZ</em></td>
</tr>
<tr>
<td>Australia</td>
<td>1982</td>
<td><em>Outboard Marine</em></td>
</tr>
</tbody>
</table>
Anticompetitive agreements

Perhaps most natural application
Anticompetitive agreements

*Article 101(3) guidelines recast Société Technique Minière (1966) European Court’ statement into explicit counterfactual:

‘The assessment of whether an agreement is restrictive of competition must be made within the actual context in which competition would occur in the absence of the agreement with the alleged restrictions’.
Anticompetitive agreements

In *BHB* and *BAGS* atomistic bilateral negotiations rejected as “unrealistic”

“The suggestion that the acquisition of the necessary critical mass by individual negotiation with up to 37 course owners either could have been done, might have been done, or was ever even contemplated as something which could or might have been done, appears to us to represent a triumph of theory over commercial reality and to ignore the evidence of the events leading up to the [MRA].”

*Mastercard* - OFT changes counterfactual from bilateral negotiations to no fees
Market power counterfactual

“This assessment [of abuse of dominance] will usually be made by comparing the actual or likely future situation in the relevant market (with the dominant undertaking's conduct in place) with an appropriate counterfactual, such as the simple absence of the conduct in question or with another realistic alternative scenario, having regard to established business practices.”

EU Commission’s 2009 guidance on enforcement priorities under Article 102TFEU (para 21)
Non-use in EU dominance cases

Reference in EU Art 86 Enforcement Priorities guidelines but no application

Direct approach used eg margin squeeze case

Exception *National Grid* where hybrid contract used which did not exist in the market.
## Antipodean market power tests

<table>
<thead>
<tr>
<th>Case/Judge</th>
<th>Test</th>
<th>Counterfactual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Queensland Wire Majority</strong></td>
<td>Acting “in manner made possible only in absence of competitive conditions”</td>
<td>Yes – competition model</td>
</tr>
<tr>
<td><strong>Queensland Wire Deane J</strong></td>
<td>Direct inference</td>
<td>No – Casual empiricism</td>
</tr>
<tr>
<td><strong>Melway &amp; CCA ss46(6A)</strong></td>
<td>Action “materially facilitated by existence of the [market] power” but not impossible without it.</td>
<td>Yes but no?</td>
</tr>
<tr>
<td><strong>Clear</strong></td>
<td>“acts in a way which a person not in a dominant position but otherwise in the same circumstances would [not] have acted”.</td>
<td>Yes – contestable market theory</td>
</tr>
<tr>
<td><strong>0867/Northern Territory Power</strong></td>
<td><strong>Clear &amp; Queensland Wire</strong></td>
<td>Yes – second network operator w/o market power</td>
</tr>
</tbody>
</table>
Counterfactual v direct test

• **Clear** counterfactual
  'It cannot be said that a person in a dominant market position "uses" that position for the purposes of s. 36 unless he acts in a way which a person not in a dominant position but otherwise in the same circumstances would [not] have acted'.

• **BOPE (= Melway)**
  '… in our view the core question remains whether the firm would rationally engage in the conduct in question if it did not enjoy dominance or possess a substantial degree of market power. … it must be accepted that conduct which may be legitimate for a firm not possessing market power (and, given that it was undertaken by such a firm, the presumption has to be that there is a profit maximizing business rationale for such conduct), can nevertheless be illegitimate if carried out by a firm enjoying dominance and/or a substantial degree of market power, for an illegitimate purpose.'
The New Zealand problem

• Privy Council in *Clear*
  Charging monopoly price not anticompetitive because competitive PSTN would have used ECPR pricing rule

• Privy Council in *Carter Holt*
  NZ’s only predation case. Uses price cost test + recoupment. Was counterfactual actually applied??

• NZ Supreme Court in *0867*
  Was the court’s counterfactual of two telecom network similar in all respects but size “commercially realistic” or generate correct conclusions (also *NT Power*)?
Issues

- Are *Melway* and Deane J (& most of s 46(6A)) tests anti-counterfactuals

- Are descriptive or commercially realistic counterfactuals consistent with policy basis of law? The “two networks” problem, and assuming away the problem.

- Does judicial application simply reflect policy considerations? – NZ (Chicago) approach, Kirby J in *NT Power (=Trinko)* and anti-intervention; Australian approach (Harvard) interventionist

- Does it really add value compared to direct approach?
“The application of the SLC test involves a comparison of the prospects for competition with the merger against the competitive situation without the merger. The latter is called the “counterfactual”. The counterfactual is an analytical tool used in answering the question of whether the merger gives rise to an SLC.”

UK Competition Commission’s 2010 Rev’d Merger Guidelines

Aust./NZ “before-and-after test”
Controversy over merger test

• I. “Unbundling” counterfactual and SLC

• II. Standard of proof has focused on word “likely” to SLC

• III. Whether there should be one or multiple counterfactuals

• IV. How to consistently deal with failing firm
Issue I - Unbundling

- Aust/NZ law appears to unbundle SLC into counterfactual and given counterfactual whether there is SLC.

- Should the standard of proof be applied directly to s50(1) or to each component ie CF and then SLC.

- In *Metcash* judges’ “unbundled” merger test into counterfactual(s) and SLC with different evidential standards.

- More likely than not v. “real chance” latter drawn from linguistic construction of word “likely” in statute.
standard of proof

- UK Act uses word expected to have SLC meaning more likely than not

- Australian case law says “likely” means lower standard of proof

- Emmett J (*Metcash*): “the Commission must satisfy the Court that its counterfactual is more probable than any competing hypothesis advanced to suggest that there is no real chance of competition being substantially lessened as a result of the acquisition”

- Buchanan J said the a double balance of probabilities test should be used ie balance of probabilities to select the most likely
### Issue II - Battle of the odds

<table>
<thead>
<tr>
<th>Judgment</th>
<th>Standard of Counterfactual</th>
<th>proof</th>
<th>SLC</th>
<th>Multiple Counterfactuals?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL</td>
<td>Real chance</td>
<td>applied to SLC</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Emmett J</td>
<td>&gt; 50%</td>
<td>Real chance</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Buchanan J</td>
<td>&gt; 50%</td>
<td>&gt; 50%</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Warehouse</td>
<td>at least 10% - 30%</td>
<td>at least 10% - 30%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>&gt; 50%</td>
<td>&gt; 50%</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>EC</td>
<td>Not used</td>
<td>Much more than 50% but less than beyond reason doubt</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>Not used</td>
<td>reasonable</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
## Issue II - Bayes v the judges

<table>
<thead>
<tr>
<th>Judgment</th>
<th>Prob. of counterfactual &amp; SLC</th>
<th>Conditional prob. of s50(1) SLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emmett J</td>
<td>50% x 30%</td>
<td>= 15%</td>
</tr>
<tr>
<td>Buchanan J</td>
<td>50% x 50%</td>
<td>= 25%</td>
</tr>
<tr>
<td>Warehouse</td>
<td>30% x 30%</td>
<td>= 9%</td>
</tr>
</tbody>
</table>

All less than a real chance of s50(1). SLC, AGL, ACCC, Metcash & Warehouse would not satisfy their respective standards of proof if applied directly to s 50(1)
Issue II - Or do we work back?

<table>
<thead>
<tr>
<th>Judgment</th>
<th>Prob. of counterfactual &amp; SLC</th>
<th>Conditional prob. of s50(1) SLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emmett J</td>
<td>90% x 30%</td>
<td>= 30%</td>
</tr>
<tr>
<td>Buchanan J</td>
<td>100% x 50%</td>
<td>= 50%</td>
</tr>
<tr>
<td>Warehouse/AGL</td>
<td>90% x 30%</td>
<td>= 30%</td>
</tr>
</tbody>
</table>

Which implies a near certainty for the counterfactual
Issue III – binary approach

Standard of proof used as a threshold not a probability – to give yes/no answer.

Does likelihood of counterfactual exceeds threshold?

If yes, then does likelihood of SLC exceed threshold?

If yes, proposed merger prohibited
Real chance leads to multiple counterfactuals

Bayes says add separate conditional probabilities to get overall likelihood - assume 30% for each CF and SLC which gives three counterfactuals with expected conditional probability =

\[0.3 \times 0.3 + 0.3 \times 0.3 + 0.3 \times 0.3 = 9\% + 9\% + 9\% = 27\%\]

*Warehouse* confused - wrongly rejects this
Issue IV - Failing firm “defence”

• ACCC says must show unlikely that will be restructured; assets will leave industry, and SLC with merger not “substantially less likely than after exit.

• Other guidelines talk of inevitability with a sufficient level of confidence

• Does this mean probability = 1 of firm/assets exit
Conclusions

• Potentially useful “analytical tool” but has inherent practical and legal drawbacks and not clear that better (or in some cases) different from direct approach.

• Asks a question, does not give an answer. Requires parties to set out explicitly theory of competition/harm but also no more than way to reframe different case theories in a way that misleads and unhelpful. Decisionmaker still required to select most appropriate counterfactual and assess evidence.

• Recently EU guidelines uses it to relabel existing case law and agency practice, without explanation of how fits with direct and checklist approaches.

• Tension between theory, policy, economics and “commercial realism”

• Urgent need for clarification and specification of counterfactual approach and proof.
Further reading


Cento is Managing Partner of Case Associates (London), University of London, IEA Fellow in Law & Economics, and Adjunct Senior Research Fellow, Centre for Regulatory & Market Analysis (CRMA) University of South Australia. He is a well respected economist with nearly 40 years' experience as an adviser to companies on competition, regulatory and litigation/damages economics. He has been selected as one of the ‘most highly regarded’ competition economists globally and one of the top five in Europe by Global Competition Review’s annual survey.

Cento often acts as an expert witness in competition law, commercial and damage litigation, and on the communications and media sectors most recently in the English High Court, Irish High Court, Federal Court of Australia, Dutch District Court, Finnish Higher Administrative Court, the UK Competition Appeals Tribunal, Irish High Court, and the International Court of Arbitration. Cento has undertaken assignments in the Nordic and Baltic countries including the Telia/Sonera, Telia/Telenor and other mergers.
About CASE

**Case Associates** provide economic analysis in competition law and regulatory investigations.

**Case** use rigorous economic and quantitative techniques to address the critical issues and marshal evidence to define relevant markets, assess alleged monopoly abuses, anti-competitive practices, cartels, and evaluate the competitive impact of mergers. It also specialises on competition, regulatory and financial issues of the network industries – communication, energy, transport.

**Case** have provided expert reports and testimony to regulatory bodies in the UK, Europe, Asia, New Zealand, and Australia, on a wide range of issues in many different sectors.

For further information [www.casecon.com](http://www.casecon.com)