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**Common Errors and Misunderstandings in Competition Law: An
Economist's View**

A. Introduction

The proper application of competition law is a challenging task which requires interdisciplinary collaboration between lawyers and economists. Ideally, they help each other in figuring out the underlying economics of a case and producing well-crafted legal documents. Unfortunately, this interdisciplinary cooperation is often overshadowed by errors and mutual misunderstandings (and sometimes outright resentment, but let me abstract away from this in the following).

In this paper, I want to discuss some common errors and misunderstandings in the application of competition law that I find particularly relevant *from the perspective of an applied economist*. Let me emphasize that I am doing this in the hope of improving the mutual understanding and effectiveness of interdisciplinary cooperation among lawyers and economists.¹

B. Common Errors & Misunderstandings

1. The Notion That Economists and Lawyers Do Not Mix Well

It is often claimed that economists and lawyers do not mix well. In the policy arena, where deadlines are tight and stakes are high, it is easy to get the impression that lawyers and economists cannot agree on anything (except, perhaps, on their disagreement).² It is fair to say that there are both lawyers and economists who harbor misgivings regarding the benefits of interdisciplinary collaboration in applying competition law. At the risk of oversimplification, let me summarize these misgivings in two views often held by what I call “hard-core” lawyers and economists:

A hard-core lawyer's view: The proper interpretation and application of competition law should be in the realm of lawyers; economists already had their say in the design of the law.

1 This paper necessarily involves a number of simplifications, shortcuts and omissions that a specialized reader might find distracting. My apologies!

2 The notion of “agreeing to disagree” was first formalized by R.J. Aumann, “Agreeing to Disagree” (1976) 4 Annals of Statistics 1236.

*A hard-core economist's view: Participating in the proper interpretation and application of competition law is a waste of time. Lawyers do not care about the underlying economics anyway.*³

Given these views of hard-core lawyers and economists, it is not surprising that, at least in Europe, the application of competition law has long been left to lawyers and mostly ignored by academic economists. Today, most people familiar with the policy arena would probably agree that things have changed considerably. In particular, it is now widely accepted that, in many markets, the proper application of competition law requires a sound understanding of applied microeconomics, with a particular emphasis on industrial organization (IO) and applied econometrics. Over the last few decades, these fields have become much more relevant for the application of competition law thanks to the development of new analytical tools and the better availability of micro data.

Yet, even though recent applied research in these fields reflects the increasing awareness in the policy arena, I have the impression that competition authorities and judges still doubt the usefulness of insights resulting from game-theoretic models and econometric analyses. Their doubts can essentially be reduced to the following question: *Why should we bother with unrealistic theoretical models and fancy econometrics when we are dealing with real-world cases?*

In my view, the answer is straightforward: Competition authorities and judges are regularly confronted with intricate descriptions of complicated real-world markets, and they often struggle to make sense of the conflicting claims regarding the functioning of these markets. In such a situation, it is extremely useful to refer to *theoretical models* which are “simple enough to understand completely and complicated enough to teach us something about the world we live in – like a fable, only more compelling” (Landsburg 2009, 21).⁴ Such models allow decision makers to check the internal consistency and external validity of the various

3 This view is perhaps best illustrated by a statement by Ronald Coase, winner of the 1991 Nobel prize in economics, who famously said that “he had gotten tired of antitrust because when the prices went up the judges said it was monopoly, when the prices went down, they said it was predatory pricing, and when they stayed the same, they said it was tacit collusion”. E.W. Kitch, “The Fire of Truth: A Remembrance of Law and Economics at Chicago, 1932-1970” (1983) 26 *Journal of Law and Economics* 163, at p. 191.

4 S.E. Landsburg, *The Big Questions* (Simon & Schuster 2010). In his 2004 Presidential Address to the Econometric Society, Ariel Rubinstein, himself an eminent economic theorist, went even one step further and referred to economic theorists as “tellers of fables” A. Rubinstein, *Dilemmas of an Economic Theorist* (2006) 74 *Econometrica* 865, at p. 882.

claims being made, and to confront them with the *econometric evidence*. Put differently, economic analysis helps weeding out misleading or flawed arguments and claims.

If economic analysis is limited to performing this task, it plays the purely *destructive* role of what could be called a “bullshit detector”,⁵ which may explain its somewhat tattered reputation among lawyers. However, in many cases, economic analysis plays a much more *constructive* role. To see this, think about our current understanding of interchange fees in credit card markets, or our view of termination fees in mobile telecommunications. It is hard to see how competition authorities could convincingly deal with such cases without referring to microeconomic analysis. Irrespective of whether it plays a destructive or a constructive role, sound economic analysis is an integral part of modern competition policy. This does not necessarily imply that there should be *more* economic analysis. Yet, in every single case, competition authorities need to make sure that the decision adequately reflects the underlying economics. In this sense, the so-called “more economic approach” advocated in Germany is a misnomer, but its agenda is perfectly sound.

In conclusion, I want to reiterate that economists must help lawyers in figuring out the underlying economics of a case, so that they can better substantiate their claims and draft more convincing legal documents. In my view, the notion that economists do not mix well with lawyers reflects a misjudgment of the benefits of interdisciplinary cooperation in the application of competition law. Competition authorities should make sure that they systematically exploit the different views and complementary skills of lawyers and economists to improve the quality of their work.

2. The Notion That Economists Should Not (But Often Do) Disagree

It is often argued that one cannot rely on economists’ policy advice, since they cannot agree on *what* to advise.⁶ This blatant criticism of the economics profession has even made it into prominent mainstream economics journals. Fuchs et al. (1989, 1387), for instance, note in a *Journal of Economic Literature* article that Winston Churchill complained “that whenever he

⁵ H.G. Frankfurt, *On Bullshit* (Princeton U. P. 2005).

⁶ With all due respect, I do not think that lawyers have a stronger tendency to agree with each other than economists.

asked Britain's three leading economists for advice about economic policy, he received four different answers—two from John Maynard Keynes".⁷

I am tempted to say that Churchill should have asked micro- rather than macroeconomists in the first place, but I do not want to provide further support for the view that economists cannot even agree among themselves. One might also argue that the state of affairs has improved a lot since the times of Churchill, but I fear that many people would not find such an argument very convincing in the aftermath of the financial crisis.

Let me argue instead that, at least in the field of antitrust economics, there is a broad consensus regarding the key concepts, analytical tools, and main insights. This consensus is nicely documented in well-known textbooks by Philips (1995),⁸ Motta (2004),⁹ Whinston (2007),¹⁰ Buccirossi (2008),¹¹ and Davis and Garces (2010).¹² I am perfectly aware, though, that expert witnesses often do their best in obscuring this impressive body of knowledge in specific cases.¹³ Yet, in my view, these tactics should not necessarily be interpreted as evidence for the view that economists are unable to agree. They rather highlight the fact that even expert witnesses in competition law are subject to economic incentives, which is perfectly in line with a key insight of modern microeconomics: Accounting for economic incentives is crucial for explaining individual behavior.

Having said this, let me emphasize that I do not claim that there are no open theoretical issues or empirical puzzles in antitrust and competition economics. I am well aware that many real-world cases raise new and subtle issues that deserve further economic research well beyond the specific case under study. It is thus not surprising that, over the last few years, competition policy has triggered research efforts in many different fields of industrial organization, including the unilateral and coordinated effects of mergers, vertical restraints,

7 V.R. Fuchs, A.B. Krueger, J.M. Poterba "Economists' Views about Parameters, Values and Policies: Survey Results in Labor and Public Economics" (1998) 36 *Journal of Economic Literature* 1387.

8 L. Philips, *Competition Policy: A Game-Theoretic Perspective* (Cambridge U. P. 1995).

9 M. Motta, *Competition Policy: Theory and Practice* (Cambridge U. P. 2004).

10 M.D. Whinston, *Lectures in Antitrust Economics* (MIT Press 2006).

11 P. Buccirossi, *Handbook of Antitrust Economics* (MIT Press 2008).

12 P. Davis & E. Garces, *Quantitative Techniques for Competition and Antitrust Analysis* (Princeton U. P. 2010). Recent textbooks in industrial organization also provide elaborate discussions of competition policy issues (see, e.g., P. Belleflamme & M. Peitz, *Industrial Organization: Markets and Strategies* (Cambridge U. P. 2010). 2010).

13 R. Haw, "Adversarial Economics in Antitrust Litigation: Losing Academic Consensus in the Battle of the Experts", *Northwestern University Law Review* (forthcoming).

price discrimination, network industries, two-sided markets, intellectual property, bidding markets and state aid.¹⁴ Let me further add that it is worth keeping in mind that “no policy issue is ever durably settled”,¹⁵ such that even supposedly solid decisions and well-established insights are continuously being challenged by new cases coming under study.

With this in mind, I readily admit that there is considerable room for disagreement among economists. Yet, such disagreement is rarely caused by conflicting interpretations of theoretical models or econometric evidence. It rather follows from the fact that the application of competition law involves issues and types of behaviors which are simply *not very well understood*. This lack of understanding is typically associated with a gap in the economic literature. Such gaps occur either because the issue is new or has been overlooked (for instance, non-binding retail-price recommendations have not been distinguished from resale price maintenance), or because the economics profession has not regarded the issue as being interesting enough to be published in a peer-reviewed journal.

In the absence of related economic literature, it is more difficult to assess the logic and consistency of the arguments put forward by the various parties (see Section 1), and expert witnesses have a lot more leeway in challenging opposing views and opening up new (and potentially misleading) battle grounds. In such a setting, it seems likely that economists disagree regarding the economics of a case. In contrast, if there are different models which predict similar outcomes based on a reasonable set of assumptions, economists typically agree that the prediction is relatively robust (even though individual models may not be robust). Or, as Landsburg puts it: “Economics is an art, but it’s a disciplined art. You’re not allowed to just say anything that sounds good. Our models keep us honest.”¹⁶

3. The (Ab)Use of Empirical Evidence

Economics has become much more important in the application of competition law over the last few decades. Competition authorities hire staff with a PhD in economics, and they

¹⁴ Personally, I regard the analysis of non-binding retail-price recommendations—which are incoherently treated by competition authorities around the world—as a particularly interesting field for future research. See C. Puppe & S. Rosenkranz, “Why Suggest Non-Binding Retail Prices?” (2011) 78 *Economica* 317 and S. Buehler & D.L. Gärtner, “Making Sense of Non-Binding Retail-Price Recommendations”, *American Economic Review* (forthcoming).

¹⁵ R. Noll, “The Role of Antitrust in Telecommunications” (1995) 3 *Antitrust Bulletin* 501, at p. 527.

¹⁶ S.E. Landsburg, *The Big Questions* (Simon & Schuster 2010), at p. 27.

devote substantial resources to keeping track of research in IO and related economic fields.¹⁷ Yet, while theoretical IO has come to play an important role in competition policy (see Section 2), empirical IO continues to play a more limited role. Davis¹⁸ explores the reasons for this and discusses how the potential synergies between competition policy and empirical IO could be better exploited.

Here, I want to focus on a related but narrower point. Specifically, I want to discuss the role that empirical evidence might play in trying to “prove” that some particular type of behavior is illicit. For instance, a competition authority might want to use micro data on prices and quantities (and other variables) to show that firms in a given market have colluded,¹⁹ that information exchange among competitors has caused an increase in retail prices, or that bid rigging has affected some public procurement projects. *To what extent can empirical evidence support competition policy in such cases?*

To answer this question, it is useful to note that competition authorities meet a number of obstacles when they conduct empirical studies. First, quite often, competition authorities simply lack the time or opportunities to produce convincing empirical studies. For instance, think about estimating the causal effect of information exchange on the prices charged in a market. Competition authorities rarely have the chance to exploit a (quasi-) experimental setting (see, e.g., Meyer 1995) which would allow them to estimate the desired causal effect on prices in a convincing way. In the absence of such an estimate, it is fairly difficult to argue that the information exchange caused a relevant price increase in the market. Second, even careful empirical studies are often “not good enough” to be applied in the context of antitrust litigation. To understand this, suppose that the so-called “conduct parameter” of a standard oligopoly supply relation is estimated to be, say, 0.75, while theory predicts that a value of zero (one, respectively) is associated with perfect competition (monopoly). Does this mean that the firms under study have colluded? And if so, to what extent have they

17 A considerable number of economists working for competition authorities continue to attend academic conferences and to publish in peer-reviewed journals. They are important contributors to the ongoing scientific debate.

18 P. Davis, “On the Role of Empirical Industrial Organization in Competition Policy” (2011) 29 International Journal of Industrial Organization 323.

19 In the New Empirical Industrial Organization (NEIO) literature, using micro data to estimate the degree of collusion has become standard practice. See L.M.B. Cabral, *Introduction to Industrial Organization* (MIT Press 2000), at p. 159) for a non-technical introduction into the NEIO.

colluded?²⁰ Third, and most importantly, it is impossible to “empirically prove” something by construction. In the best possible scenario, empirical evidence may be used to test and *reject* a specific hypothesis. Yet, as is well known, this test procedure itself is subject to (type I and type II) errors.²¹

All this implies that, strictly speaking, empirical evidence cannot be used to prove the existence of illicit behavior. Having said this, I want to emphasize that it is by no means useless to gather empirical evidence in a particular case. Econometric techniques are extremely useful in providing another consistency check in addition to that offered by theoretical models discussed above. In particular, they may improve the quality of a decision by providing *supporting evidence*.

4. The (Un)Importance of Tacit Collusion in Competition Policy

The notion of “tacit collusion” – which is often called “collusion” for simplicity – is a notorious source of misunderstandings between lawyers and economists. From an economist’s point of view, tacit collusion refers to a setting where competitors coordinate their behavior (e.g., their price setting, their advertising expenditures, etc.) to increase their profits at the expense of consumers *without relying on explicit agreements*.²² Standard IO theory²³ shows that firms are able to sustain tacit collusion if they are “sufficiently patient” in the sense that their concern for future profits prevents them from deviating from coordination.²⁴ The literature even offers “check lists” of factors facilitating tacit collusion, including a small number of similar firms, multimarket contact, the growth of the industry, etc.²⁵ (). Many of these factors are intuitively appealing and easily checked for any given market. Yet, in practice, the notion of tacit collusion plays a very limited (if any) role in the prosecution of horizontal agreements.

20 See Corts (1998) for a critical assessment of the conduct parameter method widely used in NEIO.

21 See, e.g., W.H. Greene, *Econometric Analysis* (7th edn., Pearson 2011).

22 “Overt collusion”, in turn, refers to a setting where firms form a cartel based on explicit (oral or written) agreements.

23 See, e.g., J. Tirole, *The Theory of Industrial Organization* (MIT Press 1988).

24 Note that firms return to non-coordinated behavior when a deviation is detected such that profits are lower than under collusion.

25 See, e.g., L.M.B. Cabral, *Introduction to Industrial Organization* (MIT Press 2000), at p. 137.

How can it be that tacit collusion is essentially ignored in the prosecution of horizontal agreements?

The answer is straightforward, if not very satisfactory from an economist's point of view: Having a powerful theory of tacit collusion does not help much in prosecuting horizontal agreements.²⁶ In the absence of any explicit agreements, it is virtually impossible to prove in a legal sense that firms have actually formed a horizontal cartel. Therefore, competition authorities usually do not prosecute horizontal agreements based on collusion theory.

The notion of tacit collusion is more useful when it comes to merger control. When investigating mergers, competition authorities are required to anticipate future firm conduct and to assess the proposed merger's impact on product market competition. Let me call this anticipation process "educated guessing" for the sake of the argument. In several jurisdictions, competition authorities employ versions of the "substantial lessening of competition (SLC)" test to evaluate mergers. This test prescribes an analysis of the so-called "unilateral" and "coordinated" effects of a merger. The unilateral effects refer to the change in the non-cooperative market equilibrium due to the elimination of a subset of competitors. The coordinated effects, in turn, refer to the change in the firms' ability to coordinate their behavior (i.e., sustain tacit collusion) after the merger.²⁷

Since merger control involves educated guessing about future firm conduct by construction, the impossibility to prove the existence of tacit collusion no longer prevents competition authorities from applying collusion theory. In fact, in jurisdictions such as Switzerland, where merger control is based on a *market dominance* test rather than an SLC test, merger control has little (if any) bite if "collective" market dominance – i.e., tacit collusion for most practical purposes – is ignored.²⁸

As a result, the application of collusion theory is essentially limited to merger control, even though tacit collusion is arguably a serious threat to effective product market competition.

26 The theory of tacit collusion is actually "too powerful" in the sense that it can support any conduct between perfect competition and monopoly. In the IO literature, this is called an "embarrassment of riches". J. Tirole, *The Theory of Industrial Organization* (MIT Press 1988), at p. 247.

27 See G.J. Werden & L.M. Froeb, "Unilateral Competitive Effects of Horizontal Mergers" in P. Buccirossi, (ed.), *Handbook of Antitrust Economics* (MIT Press 2008), pp. 43-104 and K.U. Kühn, "The Coordinated Effects Mergers", *ibid.*, pp. 105-144 for more detailed discussions of the unilateral and coordinated effects of mergers.

28 If collective dominance is ignored, only mergers to monopoly may effectively be challenged with a market dominance test.

5. The Vertical Restraints Conundrum

One of the most vexing issues in competition policy is the assessment of vertical restraints. In practice, vertical restraints are important because manufacturers rarely sell their products directly to final consumers. Instead, products typically pass through vertical supply chains before they are sold by retailers to final consumers. The key difference from horizontal agreements is that vertical restraints are not implemented by competitors, but by firms with a common interest in improving the supply chain's total surplus. Therefore, they generally seem to be less detrimental to competition than horizontal agreements. Yet, as usual, the devil is in the details.

The vast literature on the economics of vertical restraints has dissected many of these details,²⁹ and it has certainly had an impact on competition policy. Yet, this impact has been limited by the fact there are no clear-cut policy recommendations emerging from this literature. The key insight that vertical restraints should be assessed on a case-by-case or "rule-of-reason" basis is, unfortunately, not very helpful for the application of competition law. At the same time, relying on ad hoc "per-se" rules which cannot be reconciled with the economics of vertical restraints does not strike me as an attractive muddling-through strategy either.³⁰

Given the vertical restraints conundrum, it is not surprising that competition authorities struggle to develop consistent policies towards vertical restraints. An unwelcome side effect of this is that lawyers and economists tend to become so entrenched in conflicting views on how to best deal with vertical restraints that they eventually find it hard to cooperate in the application of competition policy more generally. Let us make sure that we do not fall into this trap!

In my view, a good way of avoiding religious wars about vertical restraints is to start from the presumption that competition authorities should frown upon vertical restraints only if

29 See Rey, P. & T. Vergé (2008), "The Economics of Vertical Restraints" in P. Buccirossi (ed.), *Handbook of Antitrust Economics*, (MIT Press 2008), pp. 353-391, for a useful survey.

30 Rey and Vergé (2008, at p. 385) write: "From a theoretical point of view, the optimal policy toward vertical restraints ... cannot be one such that some particular provisions are deemed illegal per se while some others are always acceptable."

they involve “firms endowed with significant market power”.³¹ In practice, this means that vertical restraints which involve firms with little market power may simply be ignored. In the remaining cases, competition authorities need to check the pros and cons of the vertical restraints under study against simple, tailor-made theoretical models and the available empirical evidence. For a consistent application of competition law towards vertical restraints, it is essential to get the underlying economics right.

C. Conclusion

This paper has discussed a number of errors and misunderstandings in the application of competition law that seem to be particularly relevant from the perspective of an applied economist. I hope that identifying and discussing these errors and misunderstandings contributes to their elimination. *Let us keep up the good work and try to further improve the interdisciplinary cooperation in the application of competition law!*

31 M. Motta, *Competition Policy: Theory and Practice* (Cambridge U. P. 2004), at p. 377.



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