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**Enforcing Competition Law in the Presence of Legal Uncertainty: An
Economist's Perspective**

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A. Introduction

The public enforcement of competition law is a daunting task which has kept generations of lawyers busy. Over the last few decades, many economists have joined their ranks, and it is now a common phenomenon that economists and lawyers interact in testing theories of harm, bringing evidence and crafting legal documents. It seems fair to say that, today, there is a consensus that the proper enforcement of competition law requires a thorough economic analysis of the cases under study.

Nevertheless, lawyers and judges often worry about the growing use of economic analysis in the enforcement of competition law. A particular concern is that the widespread use of economic analysis might cause *legal uncertainty*, where the latter term typically refers to a (perceived) lack in the “*predictability of outcomes* in specific cases” (Hawk and Denaеijer 2001, 129, emphasis in the original). This concern is particularly relevant for the enforcement of competition law towards vertical restraints, for which economic analysis recommends a *rule of reason* approach rather than imposing a set of relatively easily administrable but often inadequate *per se* rules (see e.g., Motta 2004; Rey and Vergé 2008).¹

The key problem with the rule of reason approach is that it provides business with less guidance than *per se* rules as to “what is legal and what is not” (Phlips 1995, 16), thereby reducing the *predictability* of law enforcement.² In exchange, the rule-of-reason approach offers more *accuracy* in determining whether a particular vertical restraint is actually anticompetitive. Therefore, if properly executed, the rule-of-reason approach is less error-prone than *per se* rules in identifying anticompetitive behavior. Taken together, these statements suggest that there is a *tradeoff* between predictability and accuracy in the enforcement of competition law.

In this paper, I explore how the growing use of economic analysis might affect the predictability and accuracy of the enforcement of competition law. To do this, I build on

1 It should be clear, though, that this concern is also relevant for other types of cases (e.g., cases involving platform markets; see Rysman (2009) for a survey).

2 Or, as Hawk and Denaеijer (2000, 130) put it: “The only way to ensure absolute legal certainty in antitrust laws is to have *per se* rules - either of prohibition or permission” (emphasis in the original).

Polinsky and Shavell's (2007) canonical model of public law enforcement.³ In Section B, I briefly sketch optimal law enforcement when the detection of anticompetitive behavior is uncertain. Next, I show in Section C how two types of errors - mistaken acquittal and mistaken conviction, respectively - impair the accuracy of law enforcement.

Based on this analysis, I argue in Section D that economic analysis serves three important purposes in the context of enforcing competition law: (i) it increases the *accuracy* of law enforcement by eliminating errors in identifying anticompetitive behavior; (ii) it supports the *predictability* of law enforcement by providing the foundations for guidelines and notices that inform business about law enforcement under the rule of reason; (iii) it supports the *credibility* of law enforcement by identifying its potential "chilling" effects (Png 1996; Kaplow 2011) and cautioning against overdeterrence.

Consequently, I conclude in Section E that *the growing use of economic analysis is part of the solution rather than the problem* when it comes to enforcing competition law in the presence of legal uncertainty.

B. Optimal Law Enforcement in a Nutshell

In this section, I briefly sketch the basics of optimal law enforcement when the *detection of unlawful anticompetitive behavior is uncertain*. This is arguably a reasonable benchmark setting because in practice some unlawful behavior is bound to go undetected due to the limited resources of competition authorities. For simplicity, I closely follow Polinsky and Shavell (2000 and 2007) and focus on a particular version of their canonical model of optimal law enforcement with risk-neutral firms and monetary sanctions only.⁴

Consider a population of firms, each of which may gain from committing an unlawful anticompetitive act causing (expected) harm h . The gain g from committing the act may vary across firms. Unlawful anticompetitive behavior is detected with probability p , in which case

3 See Calfee and Craswell (1984), Heyer (2004) and Dari-Mattiacci and Deffains (2007) for related discussions of the role uncertainty for law enforcement.

4 Polinsky and Shavell (2000 and 2007) discuss various, more general versions of this model. The setting considered here provides the very basics for understanding the economics of optimal law enforcement.

the firm has to pay the fine f .⁵ Clearly, an individual firm will only commit the anticompetitive act if the gain from doing so is larger than the expected fine ($g > pf$). Economic intuition dictates that the optimal fine f^* must therefore be chosen such that the expected fine equals the harm ($pf^* = h$). The anticompetitive act is then committed only if the gain from doing so is larger than the harm ($g > h$), such that social welfare increases.⁶

The above analysis implies that, with uncertain detection, the optimal fine f^* is larger than the harm h . More formally, the optimal fine satisfies the condition:

$$f^* = h / p.$$

That is, the optimal fine is the larger, the smaller the detection probability.⁷

The key insight from this analysis is that, under optimal enforcement, competition law will only be violated by firms for which the gains from violation are particularly high while the other firms are deterred. It is worth noting that full deterrence is not necessarily optimal.

C. Incorporating Legal Uncertainty: Enforcement Errors

A natural way to introduce legal uncertainty into this setting is to allow for enforcement errors which reduce the *accuracy* of law enforcement and obscure the “consequences of a violation” (Hawk and Denaeijer 2000, emphasis in the original). To better understand how errors affect the accuracy of law enforcement, it is useful to consider a straightforward extension of the above model which incorporates two types of errors (cf. Polinsky and Shavell 2007, 427):

1. *mistaken acquittal*: A firm which has committed an anticompetitive act is mistakenly acquitted. Suppose this error occurs with probability α ;

5 By focusing on a fixed detection probability p , I implicitly assume that the competition authorities’ resources are fixed. This is arguably a reasonable assumption in the short run (cf. Polinsky and Shavell 2007, 412).

6 More formally, this result can be derived from maximizing social welfare for some given density of gains. One might object that, according to this analysis, the gain g from the anticompetitive act is added to social welfare. If this were not the case, optimal law enforcement would typically want to implement stronger deterrence by increasing the detection probability or raising the fine (cf. Polinsky and Shavell 2007, 408, footnote 8).

7 Notice that, if firms are wealth constrained in the sense that their wealth level w is smaller than h/p , the optimal fine is reduced to w , leading to underdeterrence (Polinsky and Shavell 2007, 413).

2. *mistaken conviction*: A firm which has not committed an anticompetitive act is mistakenly convicted. Suppose this error occurs with probability β .

It seems reasonable to allow for such errors in the enforcement of competition law as the competitive effects of contractual clauses in vertical supply relations, for instance, are not always very well understood, and anticompetitive effects are often difficult to prove. A case in point is the assessment of nonbinding retail-price recommendations from manufacturers to retailers and consumers. Such recommendations may be pro- or anticompetitive, depending on the details of the industry under study.⁸ As a result, it may happen that a firm making an anticompetitive price recommendation is mistakenly acquitted, while a firm making a pro-competitive price recommendation is mistakenly convicted.

To understand how such errors affect optimal law enforcement, it is useful to recall from Section B that a firm will only commit the anticompetitive act if this is profitable in expectation. Yet, there are now two key differences to the above analysis. First, after detection, a firm which has committed an anticompetitive act may not necessarily have to pay the fine f , since it is mistakenly acquitted with probability α . The *expected gain from committing the anticompetitive act* is thus larger than one without errors and given by:

$$g - p(1 - \alpha)f.$$

Since this gain is increasing in the probability α , committing the anticompetitive act is more attractive if the probability of mistaken acquittal is high, which is intuitively appealing. Second, due to a mistaken conviction, even a firm that has not committed any anticompetitive act may have to pay a fine. The *expected gain from not committing the anticompetitive act* is thus smaller than one without errors (negative, in fact) and given by:

$$-p\beta f.$$

It follows immediately that unlawful anticompetitive behavior is more attractive when competition authorities make enforcement errors. More specifically, a firm will now commit the anticompetitive act if:

⁸ See Puppe and Rosenkranz (2011) and Buehler and Gärtner (2013) for recent contributions to the economic analysis of nonbinding retail-price recommendations.

$$g > (1 - \alpha - \beta)pf.$$

This result indicates that both types of enforcement errors reduce deterrence. It follows that, to attain the same level of deterrence as without enforcement errors, it is necessary to increase the probability of detection p or the level of the fine f .⁹

The main insight from this analysis is that enforcement errors introduce legal uncertainty by *reducing the accuracy of law enforcement*. Similar cases may happen to be treated inconsistently and even complying firms might be convicted.

D. On the Role of Economic Analysis

In view of the above analysis, I now want to argue that economic analysis serves three important purposes in the context of enforcing competition law.

1. Avoiding Enforcement Errors

Thorough economic analysis plays a crucial role in avoiding errors in the enforcement of competition law. The main reason is that the rule of reason approach favored by economic analysis is well-suited to identify and eliminate arguments and claims that are invalid or inconsistent (both within and across individual cases). This is what I called the destructive “bullshit detector” role of economic analysis in Buehler (2012).¹⁰

In the language of the model considered in Section C, economic analysis tends to reduce the probability of making errors, thereby improving the *accuracy* of law enforcement and thus deterrence. In particular, a systematic economic analysis of individual cases offers the prospect of making more accurate and consistent decisions across cases since the underlying economic forces are analyzed in a similar way.¹¹

In addition to its destructive role, economic analysis plays a constructive role in providing competition authorities with a *better understanding of complex markets* (e.g. platform markets,

9 The setting considered in Section B is a special case of that considered here, with the probabilities α and β normalized to zero.

10 The philosophical notion of “bullshit” is explored in Frankfurt (2005).

11 A more traditional approach based on *per se* rules, in turn, is prone to enforcement errors precisely because it deliberately ignores the individual circumstances in the interest of maximizing the predictability of law enforcement.

network industries, etc.) that confront them with new challenges for which standard *per se* rules offer little guidance. In doing so, economic analysis is instrumental in reducing the probability of making enforcement errors in industries which are of particular importance for modern economies.

2. Informing Guidelines and Notices

Even though I strongly support the growing use of economic analysis to avoid enforcement errors and to improve the accuracy of law enforcement, I am well aware that it makes little sense to propose a rule of reason approach across the board. Philips (1995, 16) makes the obvious shortcomings of such an approach very clear:

Are we to conclude that *per se* rules are to be avoided and that we should more carefully weigh the pros and cons in each case? I would hate such a conclusion, not only because it is no conclusion at all, but especially because it leaves business with no indication what is legal and what is not. We must, somehow, sharpen our economics to the extent that *per se* illegal behavior can be defined.

Thanks to better availability of microeconomic data and new analytical tools, we have indeed “sharpened our economics” and made considerable progress in transforming important economic insights into policy recommendations (see, e.g., Motta 2004; Buccirosi 2008; Davis and Garces 2010). Yet, nothing indicates that in the future it will be possible to enforce competition law on the basis of a small set of well-founded *per se* rules alone.

It is certainly possible, though, to work out well-founded guidelines and notices which inform business about the economic analysis that provides the basis for law enforcement in cases where *per se* rules are deemed inappropriate. Indeed, competition authorities around the world have chosen to do so over the last few decades, and the contents of these guidelines is occasionally updated to adequately reflect the developments in case law and economic literature.¹²

In this way, the growing use of economic analysis allows competition authorities to improve the accuracy of law enforcement without compromising too much on *predictability*. There remain, of course, issues with respect to the contents of these guidelines and notices, as well

¹² The Horizontal Merger Guidelines of the U.S. Department of Justice are a case in point.

as the best timing for publishing and updating them. I have little to say on these issues here, except that, if possible, guidelines and notices should not be based on economic analysis alone, but also integrate well-established case law.

3. Cautioning Against Chilling

The possibility that firms are mistakenly convicted of unlawful anticompetitive behavior raises the problem that they will be *discouraged from engaging in desirable activities* which are threatened with fines. This is the “chilling” effect (Png 1996; Kaplow 2011) caused by errors in law enforcement.

Since deterrence is at the heart of law enforcement, chilling is arguably often overlooked in practice. Nevertheless, chilling is a serious problem for the enforcement of competition law. Firms may be discouraged from increasing the efficiency of their vertical supply chains, for instance, because the relevant vertical restraints are threatened with fines. This particular type of chilling may lead to a softening of inter-brand competition (i.e., competition among supply chains). Similarly, platform owners may be discouraged from discriminatory pricing because of market power problems in some of the relevant markets, thereby foregoing efficiency gains that might be passed on to platform users. Other possibilities for chilling effects abound in the enforcement of competition law.

Economic analysis brings the potential chilling effects of enforcement to the fore and cautions against a (naïve) deterrence-maximizing enforcement of competition law. In doing so, it supports the *credibility* of the enforcement of competition law.

E. Conclusion

In this paper, I have explored how the growing use of economic analysis might affect the predictability and accuracy of competition law enforcement. I have argued that economic analysis serves three important purposes in the context of enforcing competition law:

- (i) It reduces the probability of making enforcement errors, thereby increasing the *accuracy* of law enforcement;

- (ii) It provides the foundations for guidelines and notices that inform business about law enforcement under the rule of reason, thereby supporting the *predictability* of law enforcement;
- (iii) It brings the potential chilling effects of enforcement to the fore and cautions against a deterrence-maximizing enforcement of competition law. In doing so, it supports the *credibility* of law enforcement.

Based on these arguments, it seems fair to conclude that the *growing use of economic analysis is part of the solution rather than the problem* when it comes to enforcing competition law in the presence of legal uncertainty.

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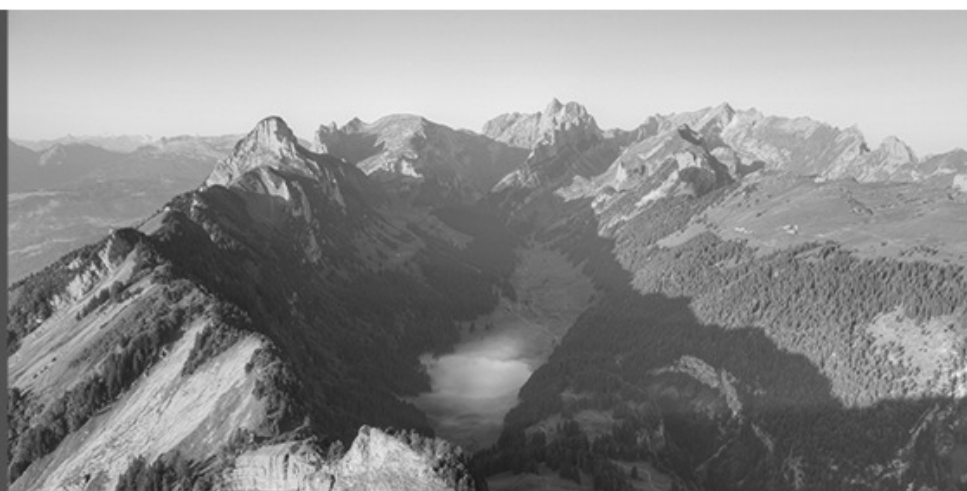
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