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Marco Lankhorst



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Improving Accuracy in Effects-Based Analysis: An Incentive-Oriented Approach*

Marco Lankhorst[†]

INTRODUCTION

This article looks for alternatives to improve enforcement under Art 81 EC. While commentators typically suggest mechanisms to stimulate private enforcement,¹ we seek to highlight the potential gains that may result from altering the legal standard in effects-based analysis.² This Article argues that adopting a legal standard that more accurately identifies harmful agreements would ensure that firms are no longer inclined to take sub-optimal levels of precaution.³ The paper fills a gap in the debate on European antitrust

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[†] University of Amsterdam, Amsterdam Center for Law and Economics. Correspondence at: Roetersstraat 11, 1018 WB Amsterdam, The Netherlands. E-mail: Lankhorst@uva.nl.

¹ Much of the debate on stimulating private enforcement is concentrated around a recent Commission green paper, and an accompanying working paper in this regard, which are available at http://europa.eu.int/comm/competition/antitrust/others/actions_for_damages/gp.html, and http://europa.eu.int/comm/competition/antitrust/others/actions_for_damages/sp.html.

² Note that the term effects-based analysis is used here as opposed to object-based analysis. Art 81 EC distinguishes between agreement that have the ‘object’ or ‘effect’ to restrict competition. Under the object-standard the analysis centres on the conduct of the defendant to learn about his intent, rather than that the impact of this conduct on the market is included in the analysis (effects-based analysis). In that sense object-analysis is akin to US per se rules. This Article concentrates on effects-based analysis only. Equally, it is not concerned with the question whether an agreement is covered by any of the block exemption regulations, as these should be thought of as rules of per se *legality*. This implies that the Article centres exclusively on agreements that are individually examined under the effects-based standard. Note, also, that this implies that the term effects-based is not used here in contrast to the form-based approach that the Commission often adopted at least prior to the substantive overhaul of its policies, which resulted i.a. in several modernised block exemption regulations: 2790/99 on vertical restraints, 2658/00 on specialisation agreements, and 2659/00 on R&D agreements.

³ The proposition that the legal standard in European effects-based analysis performs sub-optimally, is discussed in section 2 of this Article. The discussion there relies on an extensive analysis of this issue contained in Lankhorst (2007a). That Article makes a comparison of the level of accuracy in the investigation pursuant to the effects-standard of Art 81 EC, and the rule of reason of the US Sherman Act Section 1. The finding that European effects-based analysis is relatively inefficient, provides the basis for

policy by underscoring the fact this type of regulatory improvement cannot be secured by other means, such as bolstering private enforcement.

The legal standard, though an important element in the EU' enforcement machinery, is seldom discussed in the economic analysis of EU antitrust. Conversely, casual observation shows that the impact of non-substantive rules on achieving the objectives of antitrust enforcement is the main focus of this relatively large line of research. The successive waves of studies that have analysed mechanisms designed to improve private enforcement tend to confirm this observation, as they include proposals to modify the legal standing rules and altering the level of civil damages.⁴

Yet when it comes to substantive rules, the role of economics in EU antitrust is effectively limited to providing instruments with which to determine whether antitrust harm has been inflicted in an individual case. The broader picture – that reflects the impact of the calibration of substantive rules on the incentives of potential offenders and enforcers – receives little attention. This article is motivated by the view that this idea is central to the debate on efficient antitrust enforcement. A legal standard that allows enforcers to make do with an inaccurate investigation of the facts is likely to distort incentives. Because efficient agreements might be picked out by regulators, firms are induced to take unnecessary and costly precautions. The proposals advanced in this Article are designed to provide incentives which curb such inefficiencies.

Participants in the European legal debate have often criticised the standard applied in effects-based analysis under Art 81 EC.⁵ This work has shown that the

the assumption in this Article that an alternative standard can be thought of, that more accurately distinguishes between harmful and innocuous agreements.

⁴ See for example the reply by Rüggeberg and Schinkel (2006) to the Commission's green paper mentioned in footnote 1, and the literature they refer to.

⁵ To be precise, the legal standard that is examined in this Article is the sub-question contained in Art 81 EC whether an agreement, decision by associations of undertakings, or concerted practice, prevents, restricts or distorts competition. For the purposes of this Article this includes the question whether the exception of Art 81(3) EC applies. (Other issues, such as whether the agreement affects trade between Member States, are left aside.) Debate on these matters arose almost at the outset of EC competition policy and includes contributions by Wolf (1962), Joliet (1967), Schechter (1982), Forrester and Norall (1984), Whish and Suftrin (1987), Schröter (1988), Caspari (1988), Waelbroeck (1988), Korah (1992), and Siragusa (1998). As was suggested, most of these articles are of a legal nature. Neven et al. (1998) make an economic analysis of features of EU antitrust policy that includes the legal standard. They recommend, as is done here, that the assessment is made more accurate. Their analysis is different however in that – writing before modernisation – they perceive the benefit of a more permissive standard in terms of a reduction in transaction costs for firms who would no longer have to notify. This study takes a different

European Commission, in particular, uses a broad and overly-inclusive notion of restrictiveness in its analysis under Art 81(1) EC,⁶ which subjects a vast number of commercial agreements to the risk of regulatory review. Under the EU's earlier enforcement regime, the Commission's posture led to a flood of notifications.⁷ At the time, it was generally acknowledged that the task of processing the relatively harmless agreements that would be notified prevented the Commission from effectively detecting and enforcing seriously restrictive agreements. This has traditionally led to discussions about revising the standard so as to limit the number of agreements that would be caught in the Commission's net.⁸ Recent reforms – that substituted ex post control for ex ante screening, and decentralisation for the Commission's enforcement monopoly – effectively ended this discussion. This is not surprising. In essence, with DG Competition's hands freed by other means, the need to examine the legal standard no longer appears to have a compelling regulatory logic.⁹

approach by inquiring what the incentives are that the legal standard emits for firms that consider entering into restrictive practices.

⁶ As we will see further on, combined with the exercise of considerable administrative discretion in the assessment under both limbs of the provision, this creates scope for inaccuracy in adjudication, which in turn gives rise to difficulties for firms in predicting the outcome of their intended agreements.

⁷ Wils (2002: 104) mentions the number of 40.000 notifications in the first years of the application of Regulation 17.

⁸ See in general the authors mentioned in footnote 5, and in particular Forrester and Norall (1984), and Siragusa (1998). In addition, it was argued that implementation of this proposal would also have reduced the transaction costs for firms entering into innocuous agreements, by not subjecting them to unnecessary proceedings. See Neven et al. (1998).

⁹ See e.g. Manzini (2002), and Whish (2003:125). In fact this debate started to quiet down some time before the modernisation achieved by Regulation 1/2003, namely following a ruling of the Court of First Instance (CFI) in the case of *Métropole* (case T-112/99, [2001] ECR-2559). Much of the debate referred to in footnote 5 and accompanying text took the form of an exchange of arguments regarding the scope of so-called rule of reason analysis under Art 81 EC. The idea was that if beneficial effects on competition of an agreements could be heard as part of the analysis under Art 81(1) EC, this would have several related advantages. Firstly, the obligation to notify an agreement in order to obtain an exemption from the prohibition in Art 81(1) would attach to far fewer commercial agreements. This would allow firms to make savings, and would reduce the notification-workload of the Commission. In addition, a larger share of competition cases could be dealt with by courts in member states (who were barred from granting exemptions by Regulation 17/62).

In its *Métropole* ruling the CFI responded in seemingly clear language to a plea to apply the rule of reason within the scope of Art 81(1) EC. The court explained that there is no room in the analysis under this provision for an economic assessment of beneficial effects flowing from the agreement. This would be to deprive Art 81(3) EC of a useful purpose. Balancing of positive and negative effects should therefore take place within the framework of this latter provision. This ruling was widely seen as putting an end to the debate about the rule of reason in Europe.

In reading this Article it is important to understand that it does not attempt to challenge the *Métropole* ruling. This Article examines the effects of improving accuracy in the analysis of a restriction of competition. As is explained in detail in Lankhorst (2007a), *Métropole* holds that *positive* effects cannot be

This argument alone is not a compelling enough reason to ignore the role of the legal standard, however. The over-inclusiveness of the approach under Art 81(1) EC may also lead to undesirable effects under the new enforcement regime. It is argued in this article that this attribute creates greater scope for inaccuracy in adjudication, which has a number of negative consequences that were alluded to above. In the first place, it creates the risk of neutral or beneficial agreements being found to violate Art 81 EC. Firms will therefore have difficulty in predicting how their intended agreements would be evaluated in court.¹⁰ As a consequence, firms are likely to be unnecessarily cautious in undertaking agreements with competitors, distributors or suppliers. This claim is by no means affected by the procedural reforms, and therefore continues to demand our full attention, even under the new enforcement regime.¹¹

The cost of relying on an interpretation of Art 81(1) EC that may catch innocuous agreements provides a second key reason not to lose sight of the importance of the legal standard. It hardly seems appropriate to continue to burden firms with the risk of running high legal costs simply because national legal systems now incur the complementary cost of judicial administration instead of the Commission.

examined under the first paragraph. It does not say that the analysis of the *negative* effect that an agreement has on competition, an essential point of interest in US rule of reason analysis, could not be made more thorough, for example by focusing more on the effect on consumers than on the process of rivalry between firms. In fact, in its ruling the CFI clearly signalled a 'broader trend' in the case law to require more than a mere restriction of the freedom of action of one or more of the parties to an agreement to find an infringement of Art 81(1). This means that there is ample scope for making the analysis under Art 81(1) less restrictive (in the sense of catching fewer agreements) without stepping over boundaries set in *Métropole*. In the aforementioned Lankhorst (2007a) it is argued that adoption of the consumer harm standard employed in US antitrust law would be a logical result of developments in the method of analysis under Art 81(1) EC. The main features of this new standard would be that it would rely on a narrower concept of a restriction of competition in the analysis under Art 81(1) EC, and that it would allow for less discretion to be exercised in the assessment of the facts of a case. In this Article the effect of introducing a standard with these broad characteristics is examined.

¹⁰ As is argued in Lankhorst (2007a), and below, the risk created by the overly broad interpretation of Art 81(1) EC is not eliminated by the method of analysis under Art 81(3) EC, where the exercise of discretion plays an important role.

¹¹ It could be argued that the criticism of the overly-broad interpretation the Commission gives to Art 81(1) EC has been undercut by the substantive modernisation of the Commission's policies referred to above in footnote 2. It should be noted however, that, as shown in Lankhorst (2007a), all measures taken in that regard concern the analysis under Art 81(3) EC. The thoroughness of the analysis of restrictive effects (i.e. the examination under Art 81(1) EC) has been left unchanged by the Commission. Also, the issue of whether the Commission's talk regarding effects-based analysis of individual cases has in fact been walked, has not been examined at much length in the literature. One possible example is provided by Hughes and Ross (2001).

Both arguments suggests that instead of removing the need for this debate, the shift in the structure of enforcement provides a compelling reason to reassess whether the current legal standard serves well the objectives pursued by Art 81 EC. As was noted above, the standard previously gave strong incentives to firms to notify their agreements. It also induced firms to mould their agreements to the indications given by the Commission in the ensuing pre-screening process.¹² Clearly, Regulation 1/2003 has fundamentally changed the setting of European antitrust enforcement. Firms can no longer obtain ex ante clearance, so that their decisions about entering into commercial agreements are marred by the uncertainty of possibly being challenged and found in violation.¹³ In addition, the possibility is created that fines will be levied in such an event.¹⁴ The combined effect may be that incentives have changed in such a way that firms react differently to the signal emitted by a standard which is tailored to the conditions of the earlier system.

Recently commentators have analysed the effect on firm behaviour due to this shift in enforcement. Although the work by Neven (2001) and Barros (2002) does not consider a change in the legal standard, it underlines the importance of the arguments presented above. Their analyses centre on the additional transaction costs that ex post screening would cause firms to endure.¹⁵ The increase in costs can be explained in terms

¹² See Neven et al. (1998). In practice of course, not every notification led to formal proceedings, and directions might be given by the Commission in the course of informal contacts.

¹³ Under the old regime such uncertainty existed already for firms signing agreements that could not hope to benefit from an exemption, in practice, agreements that had the object to restrict competition (see footnote 2). The point that substitution of notification and ex ante screening by self-assessment and ex post control would result in reduced legal certainty, was raised by many legal scholars in the advent of the reforms. See in particular the Commission's summary of observations made by interested parties regarding its white paper on Reform of Regulation 17, where concerns for legal certainty feature prominently: http://ec.europa.eu/comm/competition/antitrust/others/wp_on_modernisation/summary_observations.html.

¹⁴ In practice the level of fines administered in properly notified cases was very low, see also Barros (2002).

¹⁵ In both models firms can vary the level of restrictiveness of the agreements they choose to implement. To the knowledge of this author these are the only scholars who consider the endogeneity of the type of agreements implemented by firms in this context. Bergès-Sennou et al. (2003), which also examines this shift, and looks at accuracy as is done here, is nonetheless more distantly related to this Article. This is because they do not focus on firm behaviour but on the competition authority's optimal choice of enforcement regime. They examine the efficiency of ex ante screening versus ex post control as determined by the interplay of two factors. Firstly, the level of the Commission's priors as to the restrictiveness of the type of practice that it is examining, and secondly, the level of accuracy with which it screens cases. They make the following propositions. If priors are very strong, then per se rules, either of illegality (EC: object-standard) or legality (EC: block exemption regulations), are preferable. Screening only adds unnecessary costs, and accuracy is irrelevant. If on the other hand priors are not so strong – which is typically the case where the effects-based standard is applied – then the optimal regime depends on the level of accuracy in

of the fines that were not imposed under the previous notification regime and the higher legal fees that would be incurred as a consequence of this more invasive procedure. Whilst employing different reasoning, both authors conclude that modernisation will induce firms with mildly restrictive agreements (which are those assessed under the effects-based standard) to over-comply.¹⁶

Together, these arguments suggest that the incentives produced by the legal standard may not be optimal, and that it is worth examining this line of argument in detail.¹⁷ For this purpose, this Article will consider a stylized model to determine whether modification of the effects-based standard under Art 81 EC will lead to more efficient results. In this context, the precise way in which Art 81 EC is implemented is crucial. Our discussion will reveal that the European Commission employs a number of mechanisms

screening cases. If accuracy is low, the fines that support ex post control, deter welfare increasing agreements. Authorisation is then the better option. At higher levels of accuracy, ex post control, with the help of fines, can deter all bad agreements, and – given the lower rate of audits than compared with ex ante screening – will result in fewer beneficial agreements being challenged. On the basis of the assumption that in the forty years of its existence the Commission has become much more experienced in assessing competitive restraints, they argue that the move to an ex post regime was justified. They do not, however, engage in any form of actual investigation of the level of accuracy with which the Commission screens cases – as is done in the present Article. Nor do they include in their analysis – which, as we will see later on, this Article also does – the uncertainty that potential offenders themselves can typically be expected to face in this range of practices that meets with inter-mediate levels of priors.

¹⁶ As this Article does, with respect to less restrictive agreements, Neven suggests that the quality of the analysis should be improved, so that innocuous cases are easily identified and consequently transaction costs will be reduced, leading to less over-deterrence. The main differences and similarities between the works of Neven and Barros can be described as follows. Where Barros devotes most attention to comparing a shift from a pure ex ante regime to a pure ex post regime, Neven's analysis is more detailed in that he models the situation prevailing under Regulation 17/62 as including both ex ante and ex post screening (the latter for per se practices). Both authors assume that under the old regime it was possible for firms to sign agreements which entailed the maximum level of restrictiveness, because notification was relatively cheap. They both find that under the new regime, because screening is expensive and possible regardless of the merits of the agreement, firms have an incentive to over-comply to the extent that the associated foregone profits are lower than the expected screening costs. Neven's analysis differs from that of Barros also in that he assumes that the level of restrictiveness at which maximum profit can be made varies per firm (according to market conditions). As to firms that stand to maximize profits at higher levels of restrictiveness, he finds that more firms will sign more restrictive agreements. Barros, who in contrast to Neven assumes that firms are uncertain regarding the location of the legal standard, reaches largely similar results though. He takes as a starting point the concerns about reduced legal certainty that were discussed above in footnote 13. He finds that the greater the difference between the costs of adjustment that firms face if their agreement is found to infringe Art 81 EC in ex post screening, and the costs incurred in adjustment after ex ante screening, the more likely it is that firms will over-comply. As a final point, it is perhaps useful to indicate a crucial difference between this Article and the work of Neven and Barros. Where neither of these authors distinguishes between the object-standard and effect-standard applied in the analysis under Art 81 EC, this Article does. It focuses exclusively on effects-based analysis (see footnote 2 and accompanying text).

¹⁷ The question can also be framed in terms of the *Métropole* ruling referred to above in footnote 9: is the trend signalled by the Court of First Instance a desirable one?

to save on the costs of enforcement, by reducing the level of accuracy in its investigations. The simultaneous use of these mechanisms induces firms to sign agreements that are less restrictive than necessary to avoid creating consumer harm. Such over-compliance constitutes an avoidable welfare loss. This result paves the way for the central argument that is made in this Article that improving the level of accuracy in the analysis of restraints would offer firms more certainty that these innocuous agreements would withstand scrutiny. As a result, European antitrust enforcement would be more efficient.

It must be underscored that uncertainty about the exact location of the legal standard is an essential component of the model that we use to examine the proposal to revise the standard. The reason can be easily appreciated if we bring to mind the well-known distinction between effects-based and object-based analysis in European antitrust law.¹⁸ As is well known, the object-standard is applied in cases where the effect of the practice at issue is evident in the conduct itself – as with price fixing or market sharing. If, on the other hand, the effect on the market cannot easily be ascertained by looking at behaviour, the effects-based standard is applied.¹⁹ The foregoing is meant to show that uncertainty must be seen as a central feature of effects-based analysis. The implication for our account of incentives is clear: if courts cannot readily verify the effect of such restraints, it can be expected that firms will also, prior to selecting a commercial strategy, face uncertainty as to how courts are likely to evaluate a particular action should a dispute arise.²⁰

¹⁸ See also footnote 2.

¹⁹ This is aptly illustrated by the discussion in Section 1 of Chapter IV of the Guidelines on Vertical Restraints, [2000] OJ C 291/1, where it is explained that the purpose of individual assessment (as opposed to application of the block exemption regulation) is to satisfy which of the potential effects of these agreements – efficiencies or harm to consumers – prevails in a given case. It is instructive also to consider the case law of the US Supreme Court on how to determine which method of analysis is to be applied to a particular antitrust case. See *National Society of Professional Engineers*, 435 U.S. 679, at 692: ‘There are, thus, two complementary categories of antitrust analysis. In the first category are agreements whose nature and necessary effect are so plainly anticompetitive that no elaborate study of the industry is needed to establish their illegality – they are “illegal *per se*.” In the second category are agreements whose competitive effect can only be evaluated by analysing the facts peculiar to the business, the history of the restraint, and the reason why it was imposed.’

²⁰ The term ‘court’ is used here to refer to the institution that takes a binding decision on Art 81 EC. With the entry into force of Regulation 1/2003 the Commission now shares power to decide on the whole of Art 81 EC with national courts and competition authorities. In order to keep this text readable, and given that in all cases the ultimate decision lies with a court, the rest of this Article refers to the entity that takes the

To explain why such insecurity may deter firms from making efficient decisions, which is the problem this Article seeks to address, we draw on insights developed in the field of tort law – notably by Craswell and Calfee (1986), Grady (1989), and Kahan (1989).²¹ As was suggested, the analysis that follows will show that the effects-based standard acts as an over-deterrent, which confirms what Cass and Hylton (2001) argue in relation to US antitrust practice. In contrast with Cass and Hylton however, who base their conclusions regarding antitrust law solely on examples of tort law, the arguments presented in this article are based on antitrust considerations. It is argued that the European legal standard may provide the Commission with the incentive to make excessive savings on investigation costs in individual cases. The resulting inaccuracy in its decision practice leads firms to favour higher level of certainty associated with taking extra, but unnecessary precaution.

Accordingly, to remedy this potentially serious problem, the effect on incentives for potential offenders of introducing a standard that more accurately identifies harmful behaviour is examined.²² The crucial factor that determines whether increased accuracy improves enforcement is shown to be its effect on enforcement costs. It is argued that this cost effect should generally be less of a problem in the field of effects-analysis, than standard theory on improving accuracy in enforcement suggests. In doing so, a valuable point is made that reaches beyond the boundaries of antitrust, and that is of importance to policymakers in other fields, who consider changes to the required level of accuracy in adjudication. The reasoning is as follows.

The standard theory on accuracy in enforcement suggests that an increase in the costs of bringing a case due to improvements in accuracy will negatively influence the level of enforcement. The cost-effects of improving accuracy therefore tend to undermine

decision whether Art 81 EC was violated in an individual case as a court, unless the Commission is specifically aimed at.

²¹ As was suggested already, this issue has not been given much attention in the study of European antitrust policies. Barros, discussed above in footnote 16, does include uncertainty regarding the location of the legal standard in his study of the effects on firm behaviour of the shift from ex ante to ex post screening. He does not separately examine the causes, properties or effects of this uncertainty, as is done in this Article. Cass and Hylton (2001) examine the effect of uncertainty in US antitrust. Their Article is discussed below.

²² An alternative would be to work with bright-line rules. This is however not an option in the field of case by case effects-analysis. The essence of the agreements that are subjected to individual scrutiny under the effects-based standard is that their effects on the market are too dependent on the specific circumstances to be able to make broad statements ex ante as to how they should be treated.

its benefits.²³ This makes the question about which effect prevails ultimately an empirical question. It will be shown that the standard theory is critically dependent on the assumption that under-deterrence is the problem to be solved. As was suggested above, however, in the field of effects-based analysis, over-compliance is more likely to prevail. This changes the analysis of the effect on the level of enforcement considerably, in a way that allows us to base much more definite conclusions on theory.²⁴ Where over-compliance prevails, a reduction in the level of enforcement should not have a negative impact on deterrence. This is because the cases that would not be brought anymore are likely to be primarily the ones that should not be challenged in the first place. And if costs rise too much, affecting meritorious cases also, a complementary increase in the level of sanctions could be used to raise deterrence, without creating new risks of over-deterrence.²⁵ Ultimately, an argument challenging the beneficial effects of improving accuracy is likely to be rather weak therefore. And since the potential benefits of revising the standard are unattainable by other means, such as bolstered private enforcement, there is evidence that a strong argument can be made in favour of revising the legal standard in European effects-based analysis.

This Article is divided into four sections. In Section 1, the basic features of the model of enforcement are set out. An analysis is made of the factors which determine the decisions taken by the different actors involved in antitrust enforcement; whether potential offenders offend, and potential enforcers file suit. These determinative factors are identified as the costs, benefits and uncertainties involved in litigation. In Section 2, the element of uncertainty is singled out and subjected to analysis. The causes and consequences of uncertainty in the context of effects-based analysis are examined. As is done in the literature on the effects of uncertainty in tort law, a distinction is made

²³ Note that there may be more cost-effects of adopting a new standard. One can think of adjustment costs, for example learning costs. Given that the change examined here (see footnote 9) can be argued to be part of the natural development of EU antitrust law (recall the trend signalled by the CFI in *Métropole*) such adjustment costs should not be too large. For this reason they are not discussed separately in this Article. On transition costs in general, see Van Alestine (2002).

²⁴ In Lankhorst (2007b) evidence is presented with which to assess from an empirical perspective the effect of adopting the US rule of reasons standard in Art 81(1) EC (see footnote 9). The evidence looked at consists both of data on developments in US antitrust following the adoption of the consumer harm requirement, and surveys of EU firms and US practitioners.

²⁵ This point is further developed in Lankhorst (2007c).

between the effects in cases where potential offenders face a binary or a more continuous range of possible actions. In cases where firms face a continuous range of options, which is the one that is argued to be most relevant in effects-based analysis, a further distinction is made between symmetrically and asymmetrically distributed uncertainty. Section 3 then considers the role of accuracy in improving incentives, and the prospects of introducing a standard that more accurately identifies harmful behaviour. The final section considers the implications of our proposal for antitrust practice.

1. BASIC FEATURES OF THE MODEL OF ENFORCEMENT

The notion that a legal standard ought to be modified depends ultimately on how well the objectives of antitrust law are served by such a measure. An incentive model of enforcement is an essential instrument for making this assessment. The prohibition of Art 81 EC is intended to deter firms from signing agreements that reduce consumer welfare by restricting the process of competition.²⁶ The model presented below describes the determinants of behaviour of those involved in the enforcement of this provision. It tells us how potential offenders decide whether they violate, and how potential enforcers decide whether they challenge some practice. This information allows us to examine what the reaction of these actors would be to a change in the legal standard, and to evaluate whether these reactions are such that the objectives of Art 81 EC would be better served. In this section, the main features of the model of enforcement by deterrence are presented.²⁷ In the sections that follow, one of the main features of the model that is of

²⁶ Numerous other goals of EU antitrust can be found listed in the literature. One that deserves particular attention here is that of integration of the Common Market. This objective provides the reasoning behind many of the Commission's and Courts' decisions in the field of antitrust. At this point however, the remark made in footnote 2 above has to be brought to mind. Agreements that hinder the integration of the Common Market, for example those that ban parallel imports, are never examined as to their *effect* (in the sense of their impact on the market in terms of welfare). Agreements that hinder integration are dealt with by means of *object-analysis*, and therefore fall outside the scope of this Article.

²⁷ The description in this section is based on the general literature on the economics of enforcement. This line of work has a long history. It goes back to the writings of Beccaria and Bentham in the late 18th century. In 1968 Becker published an article that laid the basis for a large number of contributions in virtually all fields of law. In the US, antitrust scholarship has since then been increasingly dominated by the economic approach. By comparison, the economics of enforcement have come into focus only relatively recently in EC competition policy debate. (It is important to keep in mind the distinction between application of economic insights in determining whether an individual agreement violates Art 81, and the use of economics in evaluating the efficiency of rules employed in antitrust. The claim made here applies to

particular relevance to supplying an adequate account of the effect of changing the legal standard is singled out. This is the notion that uncertainty is faced by both potential offenders and enforcers with respect to the exact location of the legal standard.

In modelling the behaviour of potential offenders and potential enforcers, two standard assumptions are generally made.²⁸ Firstly, private parties – that is potential offenders and enforcers – are seen as rational and profit maximizing agents. Secondly, the actions of European competition authorities and courts are motivated by their preference to maximize consumer welfare, which follows from the goals of antitrust laws. The prior assumption may require a measure of justification.

The rationale for accepting this assumption implies that we expect a private agent to follow a certain course of action if the utility he expects from doing so exceeds the costs that he associates with it. Let us commence our analysis with the potential defendant, whose decisions are taken at an earlier stage than those of parties involved in litigation.²⁹ Suppose for the moment that antitrust laws are absent or suspended. If restricting competition is beneficial, a firm will enter into a contract with his rivals. Now assume that antitrust laws are adopted or reinstated in order to prevent firms from entering into restrictive agreements. These laws threaten violators with some form sanction.³⁰ The assumption implies that a firm's actions depend on how sanction costs relate to his private benefit. If the sanction exceeds the benefit, it will be deterred. On the other hand, the firm will knowingly infringe the law as long as the sanction costs remain

the latter only.) On this side of the Atlantic a focus on incentives has had a strong impact on discussions regarding the design of public enforcement, such as on optimal fining (see e.g. Wils, 2002), leniency policies (see e.g. Arlman, 2005, and the literature he refers to, particularly in footnote 34), and criminalization of antitrust (see e.g. the contributions in Cseres et al., 2006). Another important object of studies applying economic insights to European antitrust has been the recent measures and proposals in the field of procedural modernization that were mentioned above (see footnote 1, and the text accompanying footnote 9).

²⁸ In addition, actual defendants and courts play important roles in enforcement. These actors are not separately discussed in this Article however. Our main focus is on the issue of uncertainty about the legal standard. Courts face no such uncertainty, as they determine the location of the legal standard. And it is more important to look at potential offenders than actual defendants because the negative effects of uncertainty are caused at the earlier state, as is shown below in section 2.

²⁹ Note that if he decides not to sign a restrictive agreement – in other words, if he is deterred – the possible decisions of other parties ought to be irrelevant.

³⁰ Sanctions in antitrust include fines, damages, and imprisonment. In this Article the focus is on the first two of these. At present criminal sanctions are not administered as part of EU antitrust law. This matter is debated in Europe though, as is evidenced by Cseres et al. (2006). Nonetheless, there is no need to include criminal sanctions in the discussion here, because they would change little in the reasoning, and above all, are not very likely to be applied following effects-based analysis.

lower.³¹ The same type of reasoning can be used to interpret the decisions of private enforcers of Art 81 EC.³²

Notice that if costs and benefits were the only determinants of behaviour, enforcement could easily be made to produce optimal results. Fines should then be set at the highest of levels and imposed on all firms found to conclude restrictive agreements. Then no litigation would occur because firms would be completely deterred. They would be certain to be challenged and penalised with adequate severity, so that no restrictive agreements would be signed in the first place. No costs would be imposed on society in that case. In this context, consumer welfare would not be destroyed by restrictive practices, and the enforcement process would not consume resources.

The fact that in reality transgressions and litigation do occur implies that in addition to costs and benefits, another element must be introduced to the model. This is the uncertainty caused by information shortages. Potential offenders and enforcers face both imperfect information (e.g. in that they lack knowledge about the assessment of the court), and asymmetric information (e.g. either party may dispose of information that the other is ignorant about). The resulting uncertainty as to whether and how an agreement will be evaluated has a decisive bearing on the decisions firms take, and therefore on the extent to which antitrust objectives are met.

³¹ Some might react to this by saying that surely other factors than financial gain alone can have a bearing on the decision to stay within the bounds of the law. Particularly in fields such as traditional criminal law (i.e. excluding white collar crime) a perceived moral responsibility not to transgress will be of major importance in determining behaviour. It should be noted however that the discussion here is stated in terms of utilities, not euros. The profit maximization assumption implies that a person will prefer that course of action to which he attributes the highest utility. These preferences are based on the prospect of extra financial profit that the agreement could lead to, and the possible amount of a fine, but they may also be influenced by disutilities originating in moral perceptions. The outlook is in principle broader therefore. It is true however that it is often easiest to think about preferences by conceptualising utilities in monetary terms. This is so particularly because the words 'profit' and 'cost' are so closely tied to monetary issues in common usage. Some nuance may be lost by doing so. But it is submitted that this loss is slight in a business setting such as antitrust (compare Wils, 2002: 13). Note that, at a deeper level of criticism, utilitarianism itself is frequently called into question. In particular, there can be much debate about aggregating individual utilities in view of differences between individuals' preferences, and between the way different groups (of consumers) are affected by a restrictive agreement. These issues are not addressed here as the assumptions made above regarding private agents involved in antitrust do not present serious problems of aggregation.

³² Just as we saw that potential offenders will choose to violate the law if this brings them gain, this implies that private enforcers act for their own benefit. And where the objectives of public enforcers are assumed to be aligned with those of society, incentives for private enforcers need not correspond to the interests of society.

Consider the following stylised examples. Certain firms will accept the risk of entering into a restrictive arrangement counting on the fact that an injured party will not be able to bear the costs of presenting a well reasoned case. Other firms may instead be induced to take unnecessary precautionary measures out of fear of being found in violation. Enforcers may likewise be affected. Private plaintiffs could decide not to press on with a reasonable case because they are not certain how it would be received in court. Further, where a competition authority must choose amongst a bundle of cases to pursue, it may be inclined to drop those cases that pose the most difficulty in assessing the level of harm, and thus its chances of success on appeal. And, if the parties have diverging estimates about the outcome and financial implications of litigation, this can make settlement negotiations go awry, leading society to incur additional costs in the administration of justice.

Looking more closely at the causes for such inefficiencies, it can be said that potential offenders may face uncertainty regarding any or all of the following issues. In the first place they may be insecure whether their intended agreement would indeed be found to infringe the law. Secondly, they are likely to be uncertain about whether their potentially illegal agreement would be challenged. Finally, it can be assumed that in most cases firms probably work with no more than rough estimates of the negative consequences of any such proceedings. Potential enforcers face very similar issues. In the next section uncertainty related to the location of the legal standard is singled out and examined in more detail. This is warranted because it is the element of the enforcement model most likely to be affected by a revision of the legal standard.³³

³³ All other causes of uncertainty mentioned above are ignored in the rest of this Article. It should be noted however that uncertainty about the exact location of the legal standard has some bearing on almost all of these issues. Let us first consider the question whether legal proceedings will be initiated. The potential offender's answer depends on his perception of a whole range of issues regarding potential enforcers. He will for instance have to consider what facts private enforcers dispose of to support a case, and how this kind of practice fits in the competition authority's enforcement priorities. Both examples show that in this regard uncertainty about the location of the legal standard plays an important role. The facts he thinks potential enforcers could dispose of he will hold against the light of the standard to assess their chances of success, and thus their likely actions. And the enforcement priorities of the competition authority are likely to be informed by the legal standard in the sense that it is more likely to pursue those agreements that the standard designates as more harmful. Similarly, the potential offender's assessment of the amount of liability to include in his calculus of the expected value of his intended course of action, is influenced by doubts he might have as to the location of the legal standard. This is because the severity of the sanctions to be imposed, whether they be fines or damages, is likely to correspond to the seriousness of the infringement found, which is in turn determined by means of the legal standard.

2. UNCERTAINTY ABOUT THE EFFECTS-BASED STANDARD

Accuracy in the application of the legal standard by courts, and uncertainty about the exact location of the standard are closely linked. As a general matter, if earlier decisions are vague or not well reasoned, potential offenders will face difficulties in accurately predicting the decision that will be reached when a court applies the standard to their agreement.³⁴ In this section, we draw on earlier work to show that uncertainty about the legal standard is a pervasive problem in European effects-based analysis. We consider next the research on uncertainty that shows the effect on behaviour – over-compliance or under-precaution – depends on the nature of the choice that potential offenders face, and the way the standard is used in practice. In the context of antitrust enforcement, it is argued that a number of mechanisms employed by the Commission to reduce investigation costs, and hence on the level of accuracy are likely to lead firms to undertake unnecessary precautions. The implication is that an increase in the level of accuracy of the investigation under Art 81 EC, can serve to limit over-compliance. In section 3, the relation between such a revision of the legal standard and the costs of investigating a case is explored in order to ascertain whether these costs get in the way of the benefits of improved accuracy.

A. Causes of uncertainty about the location of the effects-based standard

Uncertainty is a particular concern in effects-based analysis for two reasons. In the first place, this standard, by its very nature, poses challenges for firms in gauging the implications for their case. And secondly, as is argued in Lankhorst (2007a), the way in

³⁴ Note that the present section only discusses the position of the potential offender. The reason for putting focus on the role of the potential offender is that the main problem with uncertainty regarding the location of the legal standard affects the potential offender. This problem consists of inducing potential offenders to take unnecessary precautions. Surely, uncertainty also affects the decisions of potential enforcers. Including a probability of success in the calculations of the potential offender, rather than certainty, has the obvious effect of lowering the (expected) benefits of litigation. More uncertainty will therefore give less incentive to challenge an agreement. The solution that is proposed to reduce uncertainty for potential offenders, improving accuracy in adjudication, should also benefit enforcers therefore. At the same time however, this measure could affect their costs. This issue is considered in section 3 below.

which effects-based analysis is conducted in Europe tends to amplify this effect significantly.³⁵

The point that the very nature of effects-based analysis implies uncertainty is best illustrated by making a comparison with *per se* analysis. For firms considering engaging in potential *per se* violations, the key question involving the legal standard is one of characterisation. This is the question whether the intended conduct fits in one of the *per se* categories, which describe practices that policymakers have expressly forbidden because they are certain that they always produce negative effects. Effects-based analysis, on the other hand, is directed at gauging the ‘effect’ of the challenged conduct on consumer welfare. The focus is on effects rather than conduct because the type of practices examined under this standard produce different effects on consumer welfare, positive or negative, depending on the market circumstances. In other words, the effect is uncertain. This focus on market effects, and the importance of the specific circumstances of each case, complicates a party’s orientation on existing precedent for guidance on how one’s own agreement will be assessed. It is obvious that it is generally more difficult to predict the effects of one’s intended actions on others, than to determine whether these actions themselves fall in a *per se* category. Thus, by definition, the location of the effects-based standard is harder to predict.

More significantly, the manner in which effects-based analysis is carried out in Europe adds to these uncertainties. It was noted above that the Commission, in particular, has frequently been criticised for employing a very broad notion of restrictiveness in the assessment under Art 81(1) EC.³⁶ There is ample evidence in the legal literature also that the Commission can and does exercise considerable administrative discretion in the analysis under both limbs of the provision.³⁷ These two features of Commission practice conspire to complicate the position of potential offenders further.

This is not to say that the Commission’s approach to Art 81(1) EC is not insightful for potential offenders. In virtually all cases the Commission pursues, it relies on contractual restrictions of commercial freedom as a first indicator of restrictiveness.

³⁵ Support for the claims made in this sub-section are provided in that Article. It makes a comparison with the situation in US rule of reason analysis, and shows that additional causes of uncertainty are much less of a problem there.

³⁶ See footnote 5 and accompanying text.

This concept should be relatively easy to apply for potential offenders as it relates to their own conduct. In cases that warrant more serious scrutiny, the Commission complements this inquiry with an analysis of market structure. Potential offenders can be assumed to have a reasonable, if perhaps not always a very detailed impression of the general features of the market in which they operate, and the risks that their intended agreements therefore entail for competition.

As was noted above, however, restrictions of freedom do not necessarily correspond to reductions of consumer welfare. The same applies to findings of structural concerns. Naturally, the type of behaviour examined in effects-based analysis can produce positive outcomes, even if it curtails commercial freedom, or if takes place in a concentrated and shielded market. The over-inclusiveness of the analysis under Art 81(1) EC therefore has significant implications for the balancing exercise that has to be performed if the investigation under Art 81(3) EC shows that the agreement could lead to beneficial effects.³⁸ In such situations, the Commission must compare the results of the analysis under the first paragraph, stated in terms of conduct or structure, with the outcome of the investigation under the third paragraph, which are stated in terms of consumer welfare.

If the practice at issue reveals an ‘either or scenario’ – that is, if the occurrence of the positive effects precludes the negative effect or the other way around – the outcome of this balancing act may not be difficult for potential offenders to predict. Consider a case in which the analysis under Art 81(1) EC justifies the fear that the agreement may enable the parties to exercise market power, whereas the investigation under Art 81(3) EC suggests that economies of scale might allow costs to drop, which could benefit consumers by lowering prices. Naturally, both scenarios cannot be true at the same time. In such a case, there can be only one question at issue: is it more likely that firms involved find it more profitable to restrict output, or to expand it? Hence, this is a question that potential offenders – that is, firms that contemplate signing a potentially illegal agreement – should be able to answer with a reasonable measure of certainty.

³⁷ See e.g. Whish (2003: 278), and Case 42/84 Remia et al v. Commission, [1987] ECR 2545, at para. 34.

³⁸ In practice, in many cases the stage of balancing is not reached, for example because no plausible beneficial effects are found, or because the restriction is not indispensable. In this regard see Section 2 below.

Apart from the obvious remark that it is questionable whether this issue is properly addressed in the analysis under the third rather than the first paragraph,³⁹ several questions must be addressed here. First, exclusionary practices, which make up a considerable proportion of cases assessed by means of the effects-based standard, generally do not present an either/or scenario. That a firm's strategy regarding retailers involves the danger of raising rivals' costs does not exclude the possibility that it would lead to more quality and service in distribution. It can also be that the positive and negative effects that may flow from an agreement would be felt in different time frames. In all such cases balancing the outcomes stated in different terms is considerably more complicated than what was described before, and the result may be all the more difficult for potential offenders to predict. These problems are compounded by the wide margin of discretion that the European Court of Justice (ECJ) accords the Commission when it comes to the evaluation of complex economic questions.⁴⁰ It should be noted that the Commission exercises this freedom by seldom going beyond the identification of potential effects, and by not travelling too far in explaining the outcome of the balance.⁴¹ This makes that there is not an abundance of decision practice, or jurisprudence, on

³⁹ See again Lankhorst (2007a) in this regard, where an alternative ordering of the investigation under Art 81 EC is discussed. Note also that the fact that this issue is part of the defendant's burden of proof (see Art 2 of Regulation 1/2003), implies that uncertainty in this regard will bear more heavily on the potential offender's decisions.

⁴⁰ In the literature it is often pointed out that since its creation in 1898, the Court of First Instance has taken a tougher stance towards the Commission's assessment of facts than the European Court of Justice. See e.g. Van der Woude (1993), and Nehl (1999). This implies that the Commission has less room for manoeuvre than is suggested by the case law cited in footnote 37. As is shown in Lankhorst (2007a) however, the CFI has never faulted the Commission on the way it weighed and compared effects on competition, which is the question that is at issue here. In addition, some of the rulings that are pointed at to show that the Commission has a narrower margin of appreciation in establishing either positive or negative effects on competition, are in fact poor examples. *European Night Services* (Cases T-374/94, T-375/94, T-384/94, and T-388/94, [1998] ECR II-3141), for instance, did result in a serious reproach for failure to support its arguments with sufficient evidence. The special circumstances of this case should be taken into account however. In its decision, the Commission had considered an agreement caught by paragraph 1 and asked for amendments to it, whilst the combined parties had a position on the market that was only a fraction more than *de minimis*.

⁴¹ The practice of identifying potential effects stemming from the era of *ex ante* screening has been carried over to the present system of *ex post* control, see Lankhorst (2007a). It should be noted that *ex ante* screening under Regulation 17 was often actually engaged in *ex post*. Considerable time would lapse between notification and proceedings (if they followed), during which time firms could implement their agreement without the risk of being fined (Art 15(5) of the Regulation). Nonetheless, to the knowledge of the author the Commission, when eventually assessing the agreement, would not rely on evidence regarding its actual effect on the market. The exception are decisions in which exemptions are withdrawn.

which potential offenders could rely to determine what the outcome of the balance would be in their case.⁴²

Again, potential offenders may have difficulties in determining how the balance would be determined if they choose to implement their preferred agreement. The importance of this finding lies in the fact that insecurity about the implications of the legal standard can give potential offenders motives to engage in undesirable agreements. In the next sub-sections, we look at effects of uncertainty on the decisions of potential offenders in more detail, in order to determine whether reducing uncertainty by improving accuracy in adjudication can improve enforcement.

B. Differences in consequences of uncertainty

We saw that, with uncertainty, potential offenders are unable to determine with precision which commercial practices are likely to violate antitrust laws.⁴³ There are two separate strands of literature – developed in relation to other fields of law – that are instructive with respect to how firms may operate under uncertainty.⁴⁴ Applying these theories to antitrust implies making different assumptions about the nature of the choices that are available to firms, and leads to different conclusions as to how firms will react. This sub-section presents a survey of European antitrust decision practice that shows that one set of assumptions – that firms face a continuous range of options in designing their commercial agreements, rather than a binary choice – is best suited to the field of effects-based analysis. Our findings are instructive with regard to which of the two models presented in the literature should be used in the next sub-section, where the effects of uncertainty are examined in detail.

⁴² See Lankhorst (2007a).

⁴³ Another way to express this is to say that potential offenders take into account a larger than zero probability of being found in violation when engaging in practices that ‘objectively’ spoken are acceptable, and similarly, that potential offenders work with a smaller than one probability of being held liable when engaging in practices that contravene the antitrust laws.

⁴⁴ For an overview of this literature see Schwartz (2000). Note that there and here the focus is on the implications of uncertainty for the behaviour of potential offenders, and not so much on the negative effects of a mistaken decision per se, i.e. the immediate welfare loss of prohibiting a beneficial agreement or sanctioning harmful conduct. We look therefore not at the welfare effects in individual cases, but at the effects of such decisions on all those third parties that base their actions on their best understanding of the relevant case law.

Arguably the primary object of the research on the effects of uncertainty about the location of the legal standards is the rule of negligence in tort law. This rule, expressed in economic terms, holds that a person is liable for the damages that he inflicts on others if he would have spent less in taking measures to prevent the accident.⁴⁵ As is the case with effects-based analysis, this is a standard that in many instances may leave persons guessing as to how their acts will be evaluated. In modelling the effects of uncertainty in the field of negligence, Craswell and Calfee (1986) assume that firms can vary the level of precaution so as to be able to choose from a continuous range of possible behaviour. The categories of behaviour include: 1) taking no precaution, 2) or only a little, 3) taking due care, or 4) taking excessive preventive measures. Based on this range of behaviour, Craswell and Calfee show that with respect to the unwanted effects of uncertainty on behaviour, there are two types. First, a person can either engage in a practice that the law proscribes as he thinks it is unlikely that his conduct constitutes an infringement. Secondly, he can take unnecessary precautionary measures to ensure that he is in conformity with the law.⁴⁶

Png (1986) and Polinsky and Shavell (1989) reach a very different result. They analyse situations in which the choice that a firm faces is strictly between engaging in a potentially prohibited practice, or desisting from it.⁴⁷ In contrast with negligence, over-compliance is not an issue as there is no safer third option. Uncertainty about the finding that a court would make leads to under-deterrence. This can be explained as follows. Uncertainty manifests itself in two ways. First, there is a possibility that the illegal choice is considered harmless. Second, it may be that the legal choice is erroneously held to constitute a violation. Both possibilities make a violation relatively more attractive than acting in conformance with the law.⁴⁸

⁴⁵ See *Conway v. O'Brien*, 111 F.2d 611 (2nd Cir. 1940), at 612, for a more eloquent expression in US case law by judge Learned Hand.

⁴⁶ Note that Kahan (1989) and Grady (1989), who also model the effects of uncertainty in relation to the negligence standard, come to the conclusion that only under-deterrence can occur. This is discussed with more detail below in section 2C.

⁴⁷ For an overview of this strand of the literature see again Schwartz (2000).

⁴⁸ As discussed before, the potential offender will pursue that course of actions that maximizes the sum of expected costs and benefits. Lets assume that there is a choice between (in)action A, and action B, and that the potential offender guesses that the privately more beneficial option B may result in consumer harm and consequently expects that it may be challenged with some measure of probability. To make his choice the potential offender will then compare the gains he stands to make from B to the costs thereof, discounted by

Our review of the literature has brought to light two competing theories. It has been emphasised that uncertainty about the location of a legal standard can give rise to under-deterrence, or both under- and over-deterrence. In order to proceed with our analysis, we must determine which model corresponds best to the dynamics of antitrust. That is, to examine whether a revision of the effects-based standard can improve deterrence, it is crucial that we obtain an understanding about the present state of deterrence in the EU. As we have seen, the models discussed so far are based on different assumptions as to the nature of the choice potential offenders face when plotting their course of action. The remainder of this sub-section will examine which of these assumptions are best reflected in practice.

The vast majority of the Commission's Art 81 EC decisions that apply the effects-based standard⁴⁹ deal with situations where the companies involved faced a range of options at the time that they could reasonably have realised that their actions could raise antitrust concerns. It is usually possible to think of several alternative ways to set-up the agreements that are scrutinised, both more and less restrictive. The case of *Van den Bergh* can stand as an example.⁵⁰ This case concerned the distribution of ice cream. The supplier – Van den Bergh – provided its network of distributors with free-of-charge freezer cabinets, on the condition that they were used to stock the supplier's brand only. Given that most shops selling ice cream had little floor space, in practice almost all vendors had but one cabinet and therefore many of the agreements were in fact exclusive purchasing agreements. Rather than insisting on stocking only Van den Bergh ice cream in the

the probability of infringing the law and being challenged. If the result is positive, he will choose B as it is more profitable than the neutral option A. The analysis becomes more complicated if uncertainty regarding the location of the legal standard is introduced in the form of a) the possibility that even if B turns out to have negative effects, the court might acquit him, or b) the (perhaps remote) possibility that even if he chooses A, he might still be found in violation. Both possibilities make option B more attractive. The possibility of false acquittal lowers the expected costs of violating, and the possibility of an erroneous finding of an infringement reduces the difference between the expected costs of violating the law and not violating. This can be appreciated also by considering the following. Let g be the gains associated with conduct B, and c the costs that would be incurred in case a court finds a violation. Also, let p_a be the probability of conduct A being challenged, p_b the probability of conduct B being challenged, e_1 the probability that that even if B turns out to have negative effects, the court will acquit the firm, and e_2 the probability that even if the potential offender chooses A, he might still be found in violation. The expected value of B is then $g - p_b(1 - e_1)c$, whereas choosing A has a value of $-p_a e_2 c$. As the term e_1 gets larger, the value of B rises, and that as the term e_2 increases A becomes relatively more costly.

⁴⁹ Given the Commission's tendency to use both standards at the same time, it is best to concentrate on cases that involve a serious investigation under Art 81(3) EC. See also Lankhorst (2007a) on this dual-use.

⁵⁰ [1998] OJ L246/1.

cabinets, the company could also have imposed no restriction at all. Alternatively it could have stipulated a minimum percentage of Van den Bergh ice cream stocked in the cabinet. And at the other end of its range of options, Van den Bergh could have flat-out prohibited selling any other brands in the entire shop. Particularly when setting up distribution networks, firms can typically choose between a wide variety of tools with possibly restrictive effects such as whether to: 1) engage in selective distribution, 2) allocate exclusive territories, and 3) allow active and passive sales to customers originating outside these territories etc.

It is also possible, however, that a firm may be confronted with a strictly binary choice that has exclusionary implications. In this context, we can think of situations in which a competitor requests access to part of a firm's (downstream) business.⁵¹ Recent US case law offers an important example. The case of *Pepsi v. Coca Cola*⁵² involved the distribution of fountain syrup, which is thickened cola that is mixed with carbonated water at the point of sale. Pepsi relied on independent bottlers with whom it shared in the ownership of fountain syrup rights by means of licensing agreements. Coca Cola retained its rights and chose to work with exclusive distributors instead. For a variety of reasons, this choice eventually allowed Coca Cola to manage this channel more effectively, resulting in a larger share of this business. Towards the end of the 1990s, Pepsi decided to compete more aggressively in the fountain syrup channel. As a consequence, it shifted its attention away from bottlers towards distributors, many of whom had contracts with Coca Cola. At this point, the exclusivity clauses that had been in Coca Cola's contracts for almost a century became a serious problem. Coca Cola was limited to two options: either

⁵¹ One could argue that the difference in the nature of the choice that the potential offender faces is determined by whether enforcement takes the form of ex ante screening or ex post control. The idea behind such an argument would be that when an agreement is concluded firms can choose from a whole range of possible ways to construct their agreements. Ex ante screening, which takes place at this time, will focus on whether the particular option chosen has the potential to foreclose. In ex post control on the other hand it would be more natural to focus on restrictive implementation of the agreement. It is certainly true that ex ante screening tends to put the question on the table at a time when many options are still open. This does not mean however that both types of scenario cannot occur in ex post control. What is important for the analysis that follows is not how litigation is framed, but the number of choices available at the moment at which the firm at issue realises that the action it contemplates might cause consumer harm. For a firm with a strong position in the market like *Van den Bergh*, the possibility of exclusionary effects occurring will have been evident at the very moment it (re)designed its distribution network so as prohibit vendors to stock other brands of ice cream in the cabinets. At that time a range of alternatives were available.

⁵² 315 F.3d 101 (2nd Cir. 2002). *Visa and MasterCard*, 344 F.3d 299 (2nd Cir. 2003), may be another example, and *ECO System/Peugeot* ([1992] OJ L66/1) might be a European candidate.

it would do nothing and maintain these clauses, or it would have to signal to its distributors that it would not enforce them.

The specifics of the *Coca Cola* case demonstrate, however, that instances where firms face a binary choice are likely to be the exception rather than the rule in the field of effects-based analysis. As noted above, what is determinative is the moment at which the firm realises that his actions might raise antitrust concerns. Because Coca Cola and Pepsi chose for different distribution channels, and stuck by their respective decisions for an exceptionally long period of time, the exclusivity clauses became a problem at a very late stage, and rather suddenly. It is unlikely that this moment will often come as late and unanticipated as it did in *Coca Cola*. Remember that firms whose agreements are investigated under the effects-based standard are generally large undertakings.⁵³ If not, they would in most cases be able to benefit from block exemption regulations. It can be expected that such companies will ordinarily be acutely aware of the impact of European antitrust laws also at a much earlier stage, when their options are still open.

The finding that situations which involve a range of options are more relevant for our discussion suggests that models like that of Craswell and Calfee (1986), have more explanatory power in the field of effects-based analysis. This implies that the uncertainty about the effects-standard may result in both under-deterrence and over-compliance.⁵⁴ The next sub-section will examine which of these effects is likely to prevail. It will be argued that over-deterrence is the more likely candidate. This is because the Commission employs a number of mechanisms in the enforcement system that induces firms to choose for less restrictive agreements than those that would require higher levels of accuracy to assess, but might still be pose no threat to consumer harm.

C. Effects of uncertainty on firms that face a continuous range of options

How the effects-based analysis is conducted in practice determines whether uncertainty about the location of the legal standard of Art 81 EC leads firms to take too much or too little precaution. Thus far the following factors were said to give rise to

⁵³ See footnote 2.

uncertainty: 1) the nature of the effects-based standard, and 2) the overly-inclusive notion of restrictiveness, in combination with 3) the exercise of considerable administrative discretion. We will see in this sub-section that by analysing these factors alone, we are not able to decide which of the results pointed at in the previous sub-section ensues, over- or under-deterrence. It will be shown that the standard arguments employed in the economic analysis of tort law to decide on this matter are shown not to apply to antitrust enforcement. This literature, however, points to the importance of other specific features of the Commission's practice. Studying the interplay between the use of this wide notion and the exercise of discretion, on the one hand, and the Commission's frequent reliance on the concept of indispensability (Art 81(3) EC), and commitment decisions (Art 9 of Regulation 1/2003), on the other hand, reveals that firms are more likely to be unnecessarily cautious in shaping their agreements. To understand these implications, we must first take a closer look at some characteristics of uncertainty itself.

Characteristics of uncertainty

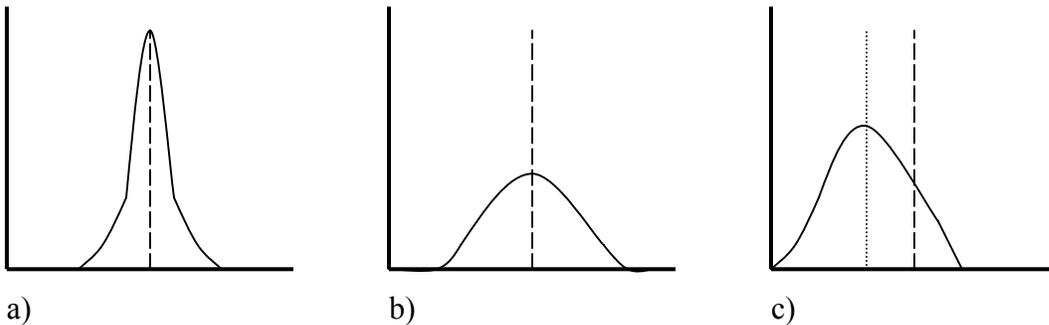
As noted above, uncertainty tends to make it difficult for the potential offender to clearly identify which agreement or practice will be found to violate the law. To begin to develop our thoughts on the issue of uncertainty it is useful to express this in different terms.⁵⁵ Uncertainty leads potential offenders to take into account a larger than zero probability of being found in violation when engaging in practices that 'objectively' spoken are acceptable. Similarly, potential offenders work with a smaller than one probability of being held liable when engaging in behaviour that contravenes the law. This approach allows us to create graphical image of uncertainty that will prove very helpful in understanding the arguments that follow. Such an image is created by mapping the combination of potential offenders' best guesses of the probability of being found to have violated the law that they associate with each of the possible forms of actions that they can choose from. This is referred to as a probability density function. It should be stated here that there is no empirical evidence available regarding actual distributions of probabilities for antitrust rules. We will see, however, that some firm conclusions about

⁵⁴ This corresponds to the approach taken by Cass and Hylton (2001) to US antitrust. They apply a model involving uncertainty that allows for over-deterrence, along the lines of Craswell and Calfee (1986).

the situation in European antitrust can nonetheless be drawn from our theoretical analysis.

The mean and the variance of a distribution hold the key to understanding what information probability density functions contain about the efficiency of a legal standard. This can be appreciated by considering Figure 1, which displays three possible distributions of probabilities. In all three the horizontal axis measures the potential offender's options in terms of behaviour. These represent the various forms of agreements that he can conclude. As we move from left to right on this axis, the behaviour becomes more restrictive. In interpreting probability density functions one must concentrate on the area under the curve. The total area always represents a probability of violation of one. The point where a vertical line that divides the area under the curve in parts of equal size hits the horizontal axis, represents a probability of liability of a half. This is the mean of the distribution. Behaviour more to the right corresponds to a higher probability, and conduct that is located more to the left is less likely to be found in violation.

Figure 1



The mean of a distribution indicates the point at which potential offenders estimate that a potential suit challenging their behaviour would be equally likely to go either way. Claims regarding behaviour to the left are more likely to be rejected, and cases involving conduct that are situated to the right are more likely to be granted. In other words, the mean indicates the point where liability is most likely to start to attach.

⁵⁵ The descriptive parts in this sub-section are based on Calfee and Craswell (1984).

This suggests that it represents the legal standard as perceived by potential offenders. Ideally the mean of the distribution corresponds to the actual legal standard. This is the case in graphs a) and b). However it may be that potential offenders perceive the legal to be fixed at a point that does not corresponds to the objectives of the law in question. Graph c) depicts such an asymmetrical⁵⁶ situation. The implication is obvious: as the standard they perceive deviates from the socially efficient one, potential offenders will choose to follow a sub-optimal course of action.

A second feature of the graphs depicted in Figure 1 that informs us about the success with which a legal standard inspires potential offenders to choose socially desirable behaviour, is its variance. This refers to the way uncertainty is spread around the mean. It expresses the degree of uncertainty that potential offenders face. Graphs a) and b) can be used to illustrate this. Potential offenders that work with a distribution such as depicted in graph a) face considerable uncertainty only as they approach the mean quite closely (from both directions). Potential offenders that reckon that probabilities are distributed as in graph b) remain uncertain about the appraisal of behaviour that is much less (and much more) restrictive. As will be demonstrated below, the wider the spread of uncertainty, the greater the probability that potential offenders will engage in some form of inefficient behaviour.

Both types of problems with legal standards, a shifted mean and wide variance, are discussed extensively below, with the aim of making inferences about European antitrust enforcement. As the main focus in the literature on uncertainty that we have thus far relied on concerns symmetric distributions, this issue will be examined first. It will be shown however that the arguments advanced with respect to negligence, fail to bring us further in the field of antitrust. Consideration of asymmetric distributions, on the other hand, is much more fruitful. We will see that the frequent use by the Commission of the concept of indispensability and of commitment decisions pushes the perceived mean to the less restrictive side of the spectrum. This allows us to conclude that over-compliance, rather than under-deterrence prevails in European effects-based analysis.

Symmetrically distributed uncertainty

⁵⁶ In the sense of not cut into equal parts by the actual legal standards.

The arguments presented above regarding: 1) the nature of effects-based analysis, 2) the Commission's use of a very broad notion of restrictiveness, and 3) its exercise of discretion, tend to suggest that uncertainty may be spread rather widely around the perceived legal standard in European effects-analysis under Art 81 EC. There are two strands in the literature on negligence that may assist us to determine what the implications of increased variance are in antitrust. For example, Craswell and Calfee (1986) reach the conclusion that although both outcomes are theoretically possible, over-compliance is likely to prevail.⁵⁷ In contrast, Kahan (1989) argues that under-deterrence is the only perverse effect in this context.⁵⁸ To understand why these authors reach different conclusions, and to gauge the implications of this debate for antitrust, we must consider how a potential offender makes his choice between the different options available. Our analysis will reveal that the arguments presented in field of negligence have little relevance for antitrust enforcement.

The assumption that private agents seek to maximize their profits implies that a potential offender will try to minimize the combined cost of expected liability, and taking precautions (i.e. forgoing extra profits by signing a less restrictive agreement). Still, whether at any starting point the potential offender will find it more profitable to increase precaution, or to behave more restrictively, depends ultimately on the pace at which expected liability declines and precaution costs rise. If, at a certain point, the expected liability costs increase faster as behaviour becomes more restrictive than the anticipated profits,, a potential offender will choose the less restrictive course of action. This means that absolute levels of precaution and liability costs at a certain point are not determinative. Even if in absolute terms expected liability is lower than the costs of precaution at a certain point, the potential offender would still choose to take more precaution if this would have more effect in terms of minimizing the sum of precaution and liability costs.

The variance of the distribution has a strong bearing on the level of efficiency achieved in enforcement since it influences the pace at which liability costs rise. We can appreciate this by assuming that the situation in effects-based analysis corresponds to

⁵⁷ See also Calfee and Craswell (1984), and Goetz (1982).

graph b) of Figure 1, and to compare this to the situation depicted in graph a) where uncertainty is more concentrated around the mean. Because in the former situation the probability of being found to violate the law starts rising at an earlier point when moving from left to right on the horizontal axis, expected liability costs initially increase faster than is the case when uncertainty is concentrated in a narrow range. Conversely, in the area immediately surrounding the standard, these costs change at a much slower pace. And in the region farther to the right, the effect of uncertainty is to dilute the threat of sanctions. The ultimate effect on behaviour depends, of course, on the rate of change in precaution costs. We are, nevertheless, able to see that the risk of potential offenders taking too much or too little precaution becomes larger as uncertainty is more spread out.

Relying on the foregoing insights, both Craswell and Calfee, and Kahan advance arguments as to which of these two effects is likely to prevail in the field of negligence. That their conclusions point in different directions is explained by a divergence in their interpretation of the law on negligence. This leads them to make different assumptions about the marginal incentives that prevail at the level of behaviour which corresponds to the legal standard.

A defendant is liable under the rule of negligence if at the time he acted the costs of preventing the accident were lower than the expected losses.⁵⁹ In order to understand the differences between the theoretical positions of Craswell and Calfee, and Kahan, it is important to recognise that accidents can occur even if the required level of care is undertaken and hence no liability ensues. Interestingly, Craswell and Calfee assume that if the potential offender failed to take due care, he becomes liable for the harm that his actions have caused, including all damages that would have been inflicted even if he had taken the precautions required. In terms of the graphs presented above, this implies that in the area where the potential offender assumes that liability is most likely to attach, expected damages will rise quite abruptly from nothing to the full amount, more so than precaution costs decline.⁶⁰ Applying the logic of marginal incentives, Craswell and

⁵⁸ This is so despite the fact that in negligence we are dealing with a situation in which potential offenders face a continuous range of options. See also Grady (1989).

⁵⁹ See footnote 45 above, and for a general discussion on negligence (and a comparison with strict liability) see Schäfer and Schönenberger (2000).

⁶⁰ There is no reason to suspect a sudden kink here, they are assumed to decline gradually.

Calfee argue that in most situations potential offenders will end up taking too much precaution.⁶¹

In contrast, Kahan submits that a defendant can only be liable for the damages caused by his negligence, i.e. the harm that would not have been inflicted if he would have taken due care.⁶² In this context, damages will rise incrementally, rather than abruptly, from the beginning. Given how the negligence standard is defined, we know more about marginal effects in this situation. At the level of behaviour that corresponds to the legal standard, the costs of taking more precaution necessarily exceed the extra costs of liability. Consequently as behaviour becomes less restrictive, precaution costs rise faster, whilst when moving away from the standard in the opposite direction, liability costs increase more strongly. In this situation, it is submitted that no rational actor will feel the urge to take additional precaution. Uncertainty can then only induce potential offenders to take less than optimal care. This is because the less than full probability of being found negligent that the potential offender takes into account when deciding on his behaviour, has the effect of lowering the value of expected liability. Thus it becomes clear that the behaviour that allows a potential offender to minimize precaution and liability costs corresponds to a lower level of precaution than the standard prescribes.

Neither the assumption made by Craswell and Calfee, concerning the marginal effects in the area where the potential offender expects that it is most likely that liability will attach, nor the assumption made by Kahan can be transposed to an antitrust setting. The former assume that expected liability costs increase dramatically because the defendant expects liability not only for the damages he has caused by taking inadequate care, but also for the damages that would have occurred if he had exercised due care. Clearly such legitimately inflicted harm – as opposed to harm to consumers – exists in the antitrust law context. Arguably, it is essence of the competitive process that firms try to increase their profits at the expense of their rivals. Such efficient behaviour is to be

⁶¹ This is so particularly for situations in which the amount of harm that can be legitimately inflicted is potentially large, and uncertainty is very concentrated, because in that case expected liability rises very rapidly in the area around the legal standard. If on the other hand such legitimately inflicted harm will be small, and uncertainty is spread out, the results are more like those reached by Kahan.

⁶² Although from a doctrinary point of view Kahan's assumption is the right one, separating these two forms of damage is often unfeasible in practice, and defendants end up paying full damages. Schwartz (2000) argues that the Craswell and Calfee model is probably more accurate in describing reality therefore.

protected rather than deterred by the antitrust laws. It was precisely this reasoning that justified the adoption of the so-called *antitrust injury* doctrine in the US, which bars plaintiffs from recovering for harm of any other sort than those that the antitrust laws were designed to protect.⁶³ Given the importance of this issue in achieving the goals of antitrust, it is to be expected that courts in Europe will take a similar stance. This approach would nicely fit the practice at least of those continental tort systems that have adopted the so-called *Schutznorm* doctrine.⁶⁴ This doctrine holds that a tortfeasor is liable only for such damages as the norm he violated was intended to safeguard against.

Rather like Kahan argues for negligence therefore, it is submitted here that antitrust damages should rise incrementally in the area where liability looms. This should not be taken to imply, however, that his conclusions regarding the effects of uncertainty surrounding the rule of negligence are valid for antitrust. There is no basis in the definition of the effects-based standard to make any assumption about relative changes in marginal effects at the point where the standard is set, that is, on how the pace of changes in expected liability compares to those in forgone profits. It could be that the extra profit generated by signing a slightly more restrictive agreement outweighs the consequent increase in expected liability, but it could just as well be the other way around. Remember that the Commission is not required to travel far on the long road to quantifying consumer harm in Art 81 EC effects-based analysis, so there is little ground to assume that fines are strongly related to such harm, let alone to the profits that a firm reaps in inflicting it. The possibility of follow-on private litigation further complicates the task of assessing marginal incentives in antitrust. Finally, it can be assumed that the costs of overhauling a distribution network that involves considerable investments by the supplier are likely to make the effective sanction costs rise faster than fines and damages payments make one believe.⁶⁵

These arguments employed in the field of negligence are inconclusive therefore, as to whether over- or under-deterrence is the likely effect of uncertainty about the

⁶³ See e.g. Page (1985). Under this doctrine a competitor can sue for profits lost due to the restriction, but not for damages that would have occurred absent the restriction. These are seen as the result of healthy competition.

⁶⁴ See Van Gerven (2000) for a discussion of European tort systems.

location of the legal standard in European effects-analysis. There are good grounds, nevertheless, for the assumption relied upon in the remainder of this Article, viz. that over-deterrence prevails. To appreciate this view, we have to consider asymmetrically distributed uncertainty in more detail. This will allow us to see that the EU enforcement context provides the Commission with a number of incentives to save excessively on investigation costs. This invariably takes the form of the Commission suggesting to the parties that they amend their agreement in such a way that it is surely not restrictive. It is argued that these practices carry a risk. If instead the Commission would investigate the matter further, this could reveal that original version of the agreement is not restrictive.

Asymmetric distribution of uncertainty

There are strong indications that there is a discrepancy between the effects-standard as perceived by potential offenders and the objectives of European antitrust law, as reflected in graph c) in Figure 1. The graph could equally well be drawn so as to reflect the situation in which the perceived standard is to the right of the actual prescription. There are a number of studies, however, that suggest that the asymmetry depicted in graph c) is a common feature of tort law, i.a. by Grady (1989).⁶⁵ The same argument has been made in relation to US antitrust, by Cass and Hylton (2001). In the European context this implies that potential offenders expect that a group of possible agreements will be held to violate Art 81 EC, whilst objectively spoken they are welfare enhancing.

With respect to tort law, the justification for this assumption is not that courts are prejudiced against defendants, but rather that the information at the disposal of a court regarding the social costs of behaviour is imperfect. At the expense of gauging the relative magnitudes of these welfare effects and weighing them, courts are likely to give much importance to the failure by the defendant to take a particular form of precaution. That is, where there is a plausible theory of harm, they decide on the basis of evidence that some extra measure could have been taken to prevent it. This approach creates the

⁶⁵ Recall that firms whose agreements are assessed individually by means of the effects-based standard, are often companies with considerable market share. Their investments in their distribution networks are not likely to be negligible.

⁶⁶ See also Huber (1988), Neeley (1988), and Olson (1991).

risk reflected in graph c), namely that upon thorough scrutiny the agreement would have been found acceptable.

Very similar mechanisms are at work in EU antitrust law. The practice of effects-based analysis shows there are a number of incentives for the Commission to make savings on the costs of investigating individual cases, and therefore on accuracy in adjudication, which, as we will see, pushes the standard to the less restrictive side of the spectrum. More specifically, these incentives are provided by the indispensability requirement in Art 81(3) EC, and the possibility offered by Art 9 of Regulation 1/2003 of adopting a commitment decision. The appropriateness of the use of these instruments as such is not challenged here. The argument is that in combination with the Commission's overly-inclusive concept of a restriction, and its exercise of discretion, they may lead to perverse effects.

Art 81(3) EC provides that restrictions should be indispensable to attain the efficiencies that are claimed to justify them. If the same goal of improving production or distribution could be achieved by less restrictive means, the agreement will not pass the test.⁶⁷ This has similar features as the mechanism pointed at by Grady and by Cass and Hylton. Rather than balancing the positive and negative effects on welfare that are involved in a case to see which is stronger, the Art 81(3) EC exception is denied because a suitable less restrictive alternative was available. Here the Commission's wide notion of a restriction is of crucial importance. The approach under Art 81(1) EC is such that agreements that present no serious threat to consumers can slip over into the analysis under Art 81(3) EC. In that situation, concentrating on potentially less dangerous ways to achieve legitimately sought efficiencies implies the risk that upon more thorough scrutiny (balancing) the agreement would have been found not to be harmful at all.

The importance of these arguments is underscored by looking at the role which the indispensability requirement plays in practice. The Commission's decisions are replete with cases in which a defence is not accepted because efficiencies could have been generated by more proportionate means, thus avoiding the intricacies of measurement. Of the 19 Art 81 EC decisions, between 1990 and 2005, which led to a

⁶⁷ See Whish (2003:157) for a more extensive discussion of the legal aspects of the indispensability requirement.

finding of an infringement and involved a substantial degree of effects-analysis, no less than fourteen (i.e. 74%) show that the indispensability-argument was raised against the party invoking Art 81(3) EC.⁶⁸ In six of these cases (32%), indispensability appears to have been the decisive factor in the Commission's assessment.⁶⁹ Firms that use these decisions for guidance as to their own situation are likely to assume that there is a large chance of being held in violation if they choose a more restrictive agreement. There is no guarantee however, that by doing so, firms will not forego privately more profitable, and socially beneficial or harmless alternatives.

A second reason to suspect that the perceived standard may be tilted towards the less restrictive side of the spectrum can be found in the Commission's frequent use, both under the old and new enforcement regime, of arrangements that show traits of a settlement. A survey conducted by Neven and others in 1998, when the prior enforcement regime was still in place, found that 69% of firms involved in notification procedures had contacts with the Commission before submitting their form. This allowed firms to discover the Commission's stance on specific features of the intended agreement, as well as to make the modifications necessary to ensure that it would be cleared swiftly. The survey showed that 59% of pre-notification contacts led to modifications. In 96% of the cases the modified version was cleared.

⁶⁸ In support of this statement a survey was made of the 148 formal decisions applying Art 81 EC taken between January 1st 1990 and August 1st 2005. A total of 83 were found in which effects-based arguments play a significant role. Of these the following 19 involved a finding of an infringement: *Anzac*, OJ [1991] L152/54; *Vichy*, OJ [1991] L75/57; *Screensport/EBU*, OJ [1991] L63/32; *EcoSystem/Peugeot*, OJ [1992] L66/1; *UK Tractor*, OJ [1992] L68/19; *Eurocheque*, OJ [1992] L95/50; *Langnese/Iglo and Schoeller*, OJ [1993] L183/1; *Astra*, OJ [1993] L20/23; *Transatlantic Agreement*, OJ [1994] L376/1; *Far Eastern Freight Conference*, OJ [1994] L378/17; *Dutch Cranes*, OJ [1995] L312/79; *Novalliance*, OJ [1997] L47/11; *Van den Bergh Foods*, see footnote 50 above; *EATA*, OJ [1999] L193/23; *JCB*, OJ [2002] L69/1; *GlaxoWellcome*, OJ [2001] L302/1, *Yamaha* (Commission's website); *Souris/Topps* (Commission's website); *Belgian Architects* (Commission's website). All of these decisions involved an indispensability argument, except for *EcoSystem/Peugeot*, *Langnese/Iglo and Schoeller*, *Dutch Cranes*, *GlaxoWellcome*, and *Yamaha*.

Note that the results of this survey should be seen as illustrative of the point made, not necessarily as proof. This is because the survey involves qualitative legal analysis, in which some measure of appreciation plays a role, for the following reason. In the US courts make an explicit choice for the method of analysis (rule of reason or per se) that suits the case. Although the Commission often only employs object-related arguments, the Commission seldomly engages in explicit effects-based analysis. In the vast majority of cases it stakes at least an object-claim. In some cases this argument is not developed further, and the analysis centres on effects. In many more however, the Commission argues along both lines in such a way as to intertwine them. See also Lankhorst (2007a).

⁶⁹ These are *Anzac*, *Vichy*, *Screensport/EBU*, *Novalliance*, *Van den Bergh Foods*, and *Belgian Architects*, see footnote 68.

In interpreting the effects of these practices on the behaviour of potential offenders, it is crucial that we realise that clearance of a modified agreement in fact involves two decisions; one to prohibit the original and more restrictive agreement, and one sanctioning the amended version. That this original version might have passed the test upon formal investigation can be appreciated if one considers the context in which these pre-notification discussions took place. These contacts certainly did not involve the kind of investigatory effort that the Commission would devote to the analysis of facts, law and economics in formal proceedings. Rather such informal discussions provided the means to make savings in that regard. After a *prima facie* appraisal of the intended agreement, the Commission would signal alternative options that could withstand scrutiny with reasonable certainty. Naturally, this does not imply that the original agreement restricted competition in the sense of Art 81 EC.

A device that produces similar effects exists under the new enforcement regime.⁷⁰ Art 9 of Regulation 1/2003 provides for so-called commitment decisions. When the Commission finds that firms offer commitments that are sufficient to meet the concerns expressed in its preliminary assessment, it can incorporate these undertakings in its decision and make them binding. This poses the same risk of pushing the perceived standard leftwards.⁷¹ The extensive use that the Commission makes of Art 9 forces us to conclude that this risk is far from negligible. If we look at decision taken in 2005 and 2006, we see that commitments were obtained in 78% of the cases that could be argued to involve effects-analysis.⁷²

⁷⁰ It is nonetheless considered important to note the practices under the prior enforcement regime, because given the short period that Regulation 1/2003 has been in force, and the relatively small number of decisions that has been taken since (see footnote 71), it is to be expected that potential offenders will in many cases look at the older decision practice for guidance.

⁷¹ Note again that it is not argued here that making savings in the assessment of individual cases by negotiating a settlement is a practice that should be abandoned. It provides both parties an opportunity to save substantial costs, which are equally relevant from a welfare perspective as improvements in accuracy are. The aim here is to show that in combination with the use of an overly-inclusive notion of restrictiveness, it can produce its own costs. In the following section the costs and benefits of improving accuracy are extensively discussed, including in terms of the effects on enforcement costs.

⁷² In the year 2005 and the first ten months of 2006 the Commission issued a commitment decision or an Art 27(4) Notice (Regulation 1/2003) in seven cases. During that period the Commission adopted three other formal decisions, each involving hard-core infringements. (The information was taken from the Commission's website. The number of pages of commitment decisions is given without the attached description of the commitment as proposed by the parties.)

1. <i>DFB</i> (19/1/05)	commitment decision	10 pages
2. <i>Coca Cola</i> (22/6/05)	commitment decision	16 pages

To defeat our propositions, it could be argued that the threat of appeal prevents the Commission from making careless use of these two instruments, indispensability and commitment procedures. If the initial agreement is not harmful to consumers, and the alternative introduced by the Commission is therefore unjust,⁷³ defendants can take effective action. This argument fails to convince however in the European context. The cost of appeal and the margin of discretion that the European Courts accord the Commission in making complex economic evaluations give defendants good reason to doubt whether such a step will leave them better off in the long run.

As noted above, when it comes to measuring and comparing effects on competition, the Commission is given considerable leeway. This implies that the Commission itself determines the exact location of the legal standard. Provided that the Commission makes some effort to motivate its decision, there is no reason to expect that either Court will superimpose its judgment. And it is not only diminished chances of success, which make that lodging an appeal may not be attractive to defendants confronted with the use of these mechanisms. One should also realise that in the absence of fines, the costs of seeking judicial review might not weigh up against the losses that could be avoided by having the original version of the agreement sanctioned. Surely, this should not be interpreted to mean that the social losses caused by the use of these instruments are small, as these decisions are likely to influence the judgments of similarly positioned potential offenders across the EU.

3. <i>BUMA/SABAM</i> (3/8/05)	art 27(4) notice	2 pages
4. <i>AA/SAS</i> (22/9/05)	art 27(4) notice	3 pages
5. <i>RawTobacco</i> (20/10/05)	infringement decision	112 pages
6. <i>SEP/Peugeot</i> (7/12/05)	infringement decision	79 pages
7. <i>Bayer</i> (21/12/05)	infringement decision	107 pages
8. <i>PremierLeague</i> (22/3/06)	commitment decision	12 pages
9. <i>Repsol</i> (12/4/06)	commitment decision	14 pages
10. <i>Cannes</i> (23/5/06)	art 27(4) notice	2 pages

Given that agreements that reflect the object to restrict competition are never approved of, it is assumed that all proceedings resulting in commitments entailed effects-analysis. As was noted, all three of the infringement decisions involved hard-core violations. In none of these an Art 81(3) EC investigation was made. In two, *SEP/Peugeot*, and to a lesser extent *Bayer*, effects-analysis was conducted in the investigation pursuant to Art 81(1) EC, despite the fact that the object-based analysis was considered decisive. If we include these two decisions in the total number of cases showing effects-based analysis, the above mentioned share of 78% is reached. If we were to argue that only cases in which effects-based arguments are decisive can be concluded, a full 100% of decisions involve commitments.

⁷³ The alternative means discussed by the Commission to achieve an efficiency, in cases that centre on indispensability, or the commitments it seeks in Art 9 procedures.

Additionally, there are two other reasons why over-compliance is the dominant response in the field of effects-based analysis. First, it should be noted that firms to whose agreements the effects-based standard is applied in individual proceedings are often large companies that fall outside the scope of the block exemption regulations. A number of such companies may be very reluctant to be caught up in contentious proceedings, as it might result in a finding that they hold a dominant position. Hence, they are likely to be cautious rather than careless in designing their agreements. Finally, recall the findings made by Neven (2001) and Barros (2003) which show that the shift from ex ante screening to ex post control introduced by Regulation 1/2003 resulted in over-deterrence of less restrictive agreements.⁷⁴

In conclusion, it can be stated that all arguments advanced in this sub-section indicate that the effects-based standard as applied in Europe encourages over-compliance. The common thread in all practices that were argued in this section to create this effect is that they allow the Commission to trade accuracy for savings on enforcement costs. In the next section, we evaluate further the relation between accuracy and enforcement costs. The literature on improving accuracy suggests that the resulting costs and benefits need to be weighed against each other in order to evaluate the merits of altering the legal standard.. It will be argued, however, that the existing theory assumes that errors result in under-deterrence. The model presented in the next section points out that where firms are overly cautious, rising enforcement costs could actually serve to improve rather than dilute deterrence.

3. COSTS AND BENEFITS OF IMPROVING ACCURACY IN EFFECTS-BASED ANALYSIS

If, as we have seen, the EU effects-standard is set at a low level that erroneously captures harmless agreements, then it makes sense to examine the prospects of raising the level of accuracy required in the investigation. Generally, the economic literature on improving accuracy (Kaplow, 1994), identifies two major constraints, predictability and costs. If the requirements that are added to the standard are not foreseeable ex ante, then the higher degree of accuracy ex post cannot be expected to change the behaviour of

⁷⁴ See footnotes 15 and 16, and accompanying text.

potential offenders. And if improving accuracy implies expanding the investigation, this would lead to higher costs as parties and courts will become more dependent on the work of experts. With rising costs, the level of enforcement is likely to suffer. It could be therefore that improving accuracy would ultimately reduce rather than increase deterrence. Ultimately, which effect prevails is an empirical question. In this section, we first look at predictability, and then move on to discuss the costs of enforcement.

The analysis developed above sketches the main contours of changes to be made to the standard employed in Art 81 EC to make effects-based analysis more accurate.⁷⁵ A concept of a restriction of competition better focused on consumer harm should be prioritised. The investigation could focus on more plausible evidence of actual consumer harm, or on evidence of market power. At the same time, the margin of administrative discretion should be reduced, forcing the Commission to put more effort into explaining the reasons for its decision on how the balance strikes out. Assuming that firms are generally able to assess the level of power they can exercise over price, it is submitted that more insightful decisions and more dependable use of the market power criterion can reasonably be expected to improve their capacity to predict how their intended agreement would be assessed. In this regard, the following arguments should be taken into account. As noted earlier, predicting the outcome of the balance of negative and positive effects on footnote consumers is likely to be the major challenge for potential offenders. The proposed changes to the standard would result in fewer cases where pro and anti-competitive effects have to be balanced, as the over-inclusiveness of Art 81(1) EC is reduced. Naturally, this would reduce the complexity of self-assessment.

Costs are a more pressing concern. Requiring enforcers to present more compelling evidence of consumer harm would seem to require more effort, leading to an increase of costs. A change in the legal standard does not have to be conceptualised as an intensification of the scrutiny of facts, however. Improving accuracy can also entail reliance on an alternative and more vocal set of evidence. For instance, the ‘quick look’ case law in US antitrust nicely illustrates this point.

In *Indiana Federation of Dentists*, the United States Supreme Court stated the following that “[s]ince the purpose of the inquiries into market definition and market

⁷⁵ See also Lankhorst (2007a).

power is to determine whether an arrangement has the potential for genuine adverse effects on competition, “proof of actual detrimental effects, such as a reduction of output,” can obviate the need for an inquiry into market power, which is but a “surrogate for detrimental effects.”⁷⁶ If for example the enforcing party can show that in a comparable market for the same product elsewhere in the country, prices did not rise, then this is sufficient to satisfy his burden, and he avoids the extremely costly exercise of defining the relevant market. In Europe such evidence is seldom considered.⁷⁷

It should also be acknowledged that requiring more to establish a restriction might, at the same time alleviate, other parts of the burden resting on enforcers. Damages are the plaintiff’s private portion of general consumer harm. If he is required to show more to prove a restriction, this work should help him in establishing damages therefore. The point in presenting these arguments is not to show that improving accuracy in effects-based analysis will not increase the costs of enforcement. Rather it is to indicate that whether it does so or not is ultimately a question for empirical research.⁷⁸

However, let’s consider what could happen if overall costs incurred by enforcers would rise. It can be expected that increased costs will lead to a lower level of enforcement activity. If under-deterrence is the problem, then, if firms are already signing unlawful agreements, such a drop in the level of deterrence could pose a serious threat. Unless the refined standard allows enforcers to make enough savings by no longer targeting innocuous practices, to ensure that the level of enforcement of real violations is maintained, existing practice is best left unchanged.

This is different, however, in a situation where over-deterrence is the main problem. In this context, it is essential that we inquire what group of cases would be brought less frequently, if the level of enforcement would decrease. These are likely to be the least restrictive cases, starting with those that should not be challenged in the first place. Public enforcers, faced with the task of distributing their resources over fewer cases, will select those cases that pose a more serious threat to consumer welfare.⁷⁹

⁷⁶ 476 U.S. 447 (1986), at 460.

⁷⁷ See Lankhorst (2007a).

⁷⁸ This question is taken up in Lankhorst (2007b).

⁷⁹ See the assumptions made about the behaviour of public enforcers in section 1 above.

Private enforcers will also be disenchanted with the cases on the least restrictive side of the spectrum, because the rise in costs renders them unprofitable to pursue.⁸⁰

Legal fee shifting should also be taken into account. In most European systems of private law, the losing party pays the winning party's legal costs.⁸¹ Improved accuracy allows plaintiffs with a meritorious case to include a higher probability of prevailing in court in their calculation of the expected value of litigation. This lowers the probability of having to pay for the increased costs (due to improved accuracy), so that overall the prospects for plaintiffs may not worsen. Still, it remains possible that the increase in costs is so large that enforcers shy away from practices that would merit being challenged.⁸² Having improved accuracy, however, this problem could be solved by raising the level of awards and fines, without creating serious new problems of over-deterrence.⁸³

In conclusion, it can be stated that deterrence in the field of effects-based analysis stands to be improved by increasing the level of accuracy in the analysis of restraints. In the next and final section we take a closer look at the implications of the analysis made in this Article, including for efforts to facilitate private enforcement.

4. POLICY IMPLICATIONS

This Article has focused mainly on accuracy in effects-based analysis. It was shown that the use of an over-inclusive notion of restrictiveness and the exercise of administrative discretion allow the Commission to make excessive savings on the accuracy of its assessments. The resulting uncertainty about the exact location of the legal standard leads firms to take unnecessary precaution. It stands to reason that over-compliance constitutes a welfare loss. For this reason, we examined the possibility of

⁸⁰ Differently so than Kaplow assumes also, this effect should occur even if the answers to the questions newly introduced to the legal standard are not available *ex ante* to the potential enforcer. Even if under the new standard potential offenders are still not better able to predict exactly how their agreement would be appraised in court, they can be expected to learn that the range of behaviour that is slightly more restrictive than what they would have engaged in before, is now less likely to be challenged. This reduced probability translates into a lower expected cost of being found guilty. All other factors remaining equal, over-compliance can be expected to be relatively less attractive. At the same time, the costs society makes on administration of justice, and private legal expenditures should go down.

⁸¹ Ashurst (2004: 92).

⁸² The fact that the costs that the winning party can recoverable fall generally falls considerably short of actual costs, could play a part here.

improving the level of accuracy in effects-based analysis. In doing so a point was made that reaches beyond the boundaries of antitrust.

Standard theory suggests that an increase in the costs of bringing a case due to improvements in accuracy will affect the level of enforcement, and that the cost-effects of improving accuracy will, therefore, tend to undermine its benefits. Which effect prevails is seen as an empirical question. We have seen, however, that the standard theory fails to describe the realities of antitrust enforcement. In the first place, we saw that it is not evident that costs of enforcement would have to rise. More importantly, it was shown that the standard theory is based on the assumption that under-deterrence is the problem to be solved. Our model suggested that in contrast to the implications of the standard theory, in situations of over-precaution, which we saw also includes the field of negligence, a reduction in the level of enforcement should not have a negative impact on deterrence. The cases that would not be brought anymore are likely to be primarily the ones that should not be challenged in the first place. And if costs rise too much, affecting meritorious cases, a complementary increase in the level of sanctions could be used to raise deterrence, without creating new risks of over-deterrence. Ultimately, the argument that the benefits of improving accuracy that we claim may be defeated by cost effects, which must consequently be weighed in empirical analysis, is likely to be rather weak therefore.

In addition, the analysis has the following implications for current efforts to stimulate private antitrust enforcement that were mentioned in the introduction. In its 2005 Green Paper on Actions for Damages, the European Commission touched on two issues that are closely related to what was discussed above. The first is the Commission's proposal to investigate the merits of doubling damages.⁸⁴ Significantly, this proposal is restricted to cases involving horizontal cartels, and therefore effectively excludes cases examined by means of the effects-based standard. Our analysis suggests that raising sanctions in effects-based analysis would indeed not be a good idea, as it exacerbates existing problems. Any multiplication of damages makes that expected liability costs increase faster in relation to the extra profits of engaging in a slightly more restrictive

⁸³ This issue is examined in detail in Lankhorst (2007c).

practice, than is the case under single damages. The result will be that the privately optimal level of precaution will come to lie even further to the less restrictive side of the standard. If complemented by efforts to make the assessment of restraints more accurate, increasing sanctions does hold the promise of improving deterrence, also in the field of effects-analysis.

The second proposal advanced by the Commission was that evidentiary presumptions could be used to alleviate the private plaintiff's burden of proof.⁸⁵ In as much as these presumptions would be based on the notions of restrictiveness that underlie the Commission's current practice, the analysis above can easily be used to argue against such a proposal. In order to establish a *prima facie* case, plaintiffs can typically be expected to concentrate their persuasive efforts on showing that the defendant could have taken some form of precaution that would have avoided the injury they sustained. Given that welfare effects are hard to sort out for courts, it is uncertain whether defendants will be able to induce them to decide in their favour once the plaintiff has established untaken precautions. It was shown above that such an approach is conducive to over-compliance. It would appear to be more fruitful therefore to focus on the plaintiff's access to information, than to allow him to show less of it.

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⁸⁴ See pp. 34-44 of the working paper mentioned in footnote 1, where exemplary and punitive damages are placed in a European context.

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