Competition law enforcement and incentives for revelation of private information*

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Abstract:
The past and current reluctance of firms and individuals to use private enforcement suggests that there are limited incentives for self-help. The key contribution of private enforcement to overall deterrence derives from cases which would not otherwise be brought, not simply because of resource constraints, but also because relevant information would not otherwise have come to light. In terms of revealing such private information, cases initiated and pursued by private litigants add much more to the equation than do cases merely following-on from decisions made by competition authorities. In this paper we use a simple model to highlight what features of the private enforcement system promote and hamper the use of these two different types of private enforcement. A key finding is that that to encourage new cases, it is essential that private enforcement is quicker than the time it takes to get a decision in a follow-on case.

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1 Introduction

The main purpose of competition law is to regulate the way in which firms interact with each other and with their customers. A public authority charged with enforcing competition law must be able to obtain information about potential infringements in order for the regulation to be effective. There is general asymmetric information between firms and regulators not merely in terms of the actions taken by the firms, but also about fundamentals such as costs and demand conditions, making it difficult to infer behaviour from observations. Even with generous funding this informational asymmetry may not be removed. As an example, sector regulators, who have specialist industry knowledge beyond what is generally the case for competition authorities, still face asymmetric information problems to such an extent that mechanisms have been developed to bypass the need for this information.[1] The bite of the asymmetric information is more in the initial detection than in any subsequent investigation since public authorities can and have been given expansive discovery powers.

It can be said that the information asymmetries between two firms who operate in the same or related markets are smaller than those which exist between a competition authority and the firms. Thus rivals, direct buyers or direct suppliers are more likely to become aware of a potential infringement of competition law than the relevant competition authority. Effective enforcement and hence deterrence could then be improved if a mechanism could be found which would incentivise these actors to reveal their information. In some cases there may be a cost associated with revealing this information, particularly where the informant will have future dealings with the subject of the information. For example, a supplier may be reluctant to inform on a powerful buyer who has abused its dominant position for fear of future reprisals. Arguably private enforcement is an information revelation mechanism as the prospect of damages provides a financial incentive for plaintiffs to bring into the open information about violations which competition authorities were not aware of, nor possibly able to detect.

This paper focuses on the information revelation property of private enforcement.[2] Arguably when it comes to enforcement, information revelation is the key strength of private

[1] For example the benefit of the now commonly used RPI-X regulation is that the regulator need not know the marginal costs of the regulatees.

[2] Another broad aim of private enforcement is compensation. Traditionally courts have been reluctant to award compensation in cases of pure economic loss.

enforcement.[3] Public enforcement has an obvious advantage when it comes to punishment because the state has access to more sever forms. Private enforcement does have the capacity to add resources to the overall enforcement of competition law, but only where the informant plaintiff pursues the case without the help of the competition authority.[4] Thus cases which are initiated by private plaintiffs without the intervention of the competition authority appear to merit particular attention when it comes to designing a private enforcement regime for competition law. In the remainder of the paper we will first discuss the merits of such cases, making a comparison with cases which follow-on from competition authority decisions. In section three we construct a simple model to illustrate what features of the law support such cases. In section four we speculate on what types of cases are most likely to arise directly from a private plaintiff and section five concludes.

2 De novo vs. follow-on cases

Not all types of private cases are likely to lead to the same degree of revelation of crucial and valuable information. Following Kauper and Snyder (1985), we divide private litigation cases into two categories, in the following referred to as *de novo* and *follow-on*.[5] With a *de novo* case, a plaintiff initiates a private action based on an alleged breach of competition law. The plaintiff must provide the necessary evidence to secure an infringement decision and faces the risk of having to pay at least its own costs, and possibly the costs of the defendant, should it lose. The evidence provided is directly tested in court and the plaintiff has a strong incentive to reveal all information it has which may lead to an infringement decision. In a *follow-on* case, the would-be plaintiff waits for the decision of the competition authority and only initiates a case where the infringement has been established.[6]

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[3] The structure of US antitrust law offers support for the importance of information revelation. A combination of treble damages and no passing on defence creates strong incentives for direct purchasers, who have better information than indirect purchasers about violations, to pursue cases.

[4] One might be concerned that the way in which these additional resources are raised may have unexpected distributional consequences on those who ultimately provide them.

[5] We abstract from a discussion of where competition law is being used as a shield as in, for example, an IP infringement case where the defendant offers a defence based on Article 82. Of course in such cases the defendant has no choice over proceedings.

[6] In the US, *follow-on* cases typically start well before the competition authority has reached its decision. The reason for this can be found in the incentive provided by class actions. Being the first law firm to bring a suit puts the firm is a strong position to be in charge of the class action. Thus there may be a race between law firms to initiate the case as soon as possible. In a EU context where class actions are not generally available, we would expect the competition authority to have scrutinised the case and reached a decision before any potential *follow-on* case by the plaintiff is initiated against the defendant.

While it is obvious that *de novo* cases lead to information revelation, the same can be true for *follow-on* cases. The opportunity to follow-on after a competition authority decision could give a would-be plaintiff with private information an incentive to alert the competition authority to a violation. However, there are two important observations to make. First, while all *de novo* cases lead to information revelation, this is clearly not the case with all *follow-on* cases since some of these are pursued by plaintiffs who did not know about the violation before the competition authority initiated the case. Secondly, where information is revealed by someone who is a potential future plaintiff, it is provided by someone with a vested interest. Given this, there is a need on the part of the competition authority to exercise closer scrutiny of the veracity of the information. Moreover, since the informant does not have to bear the costs of starting the case, they have little incentive to filter the information and hence they may over-inform. This may make it more costly for the competition authorities to assess the value of the information.[7] Allowing for the fact that competition authorities may make mistakes in their decisions, the plaintiff may even try to manipulate the inference to attempt to get an incorrect decision that a violation has occurred. Thus not only may more information be revealed through *de novo* cases, but this information may be of higher "quality".

De novo cases have a further merit insofar as they represent an augmentation of resources for the enforcement of competition law which, providing there are appropriate safeguards in place, may be expected to lead to a higher level of deterrence against anticompetitive behaviour. A follow-on case, on the other hand, involves free-riding[8] on public resources which has rather colourfully been referred to as a case where "plaintiffs' counsel can be cast as jackals to the government's lion, arriving on the scene after some enforcement or administrative agency has made the kill".[9]

While there may be collective reasons for favouring *de novo* cases, it is important to consider whether there are benefits to the plaintiff over and above the potential damages

[7] While the focus in this paper is on getting information about a potential infringement revealed, prospective plaintiffs may also have less of an incentive to reveal all its information to the competition authority than it would if it was pursuing its own case. Thus there could be an additional resource saving from a *de novo* case.

[8] This free riding refers to the individual not bearing all the costs of the action it is taking for private gain. Where private enforcement leads to deterrence of even clarification of the law, we can identify another form of free-riding, that of the individual plaintiff by society.

[9] In re Gulf Oil/Cities Service Tender Offer Litigation, 142 F.R.D. 588 (S.D.N.Y.1992), though used to indicate the absence of free-riding in that case.

award. The potential benefits to the plaintiff of a *de novo* case over a *follow-on* case are twofold. First, the case may be resolved faster. Typically it can be more tightly defined than a case brought by a competition authority.[10] Furthermore, the relevant information the plaintiff already has in its possession may possibly with additional information obtained through discovery, be sufficient to construct the evidence necessary to pursue a realistic infringement case through the court. Speed may well be of the essence to an aggrieved firm, for example, if the competition law issue involves predatory pricing, a timely resolution may ensure that the plaintiff does not exit the market.[11] Secondly, the defendant in a private case may be willing to settle and while settlement in a *de novo* case can be relatively immediate, settlement in a *follow-on* case must await the outcome of the competition authority decision and any potential subsequent appeals. While competition authorities often have the power to agree a settlement in the form of undertakings or commitments, even cartel cases where those accused have admitted an infringement in return for leniency, the duration of these cases does not appear to be shortened dramatically.[12] However there are also evident advantages to *follow-on* cases, most obviously when it comes to the cost of the case. How great the savings are depends on the jurisdictions and in particular on whether or not the decision of the competition authority can be used as conclusive evidence of a violation, leaving the plaintiff with the less onerous task of establishing causality and the level of damages. Moreover, because of its expertise in competition analysis, the competition authority is typically less likely to make errors in its decision,[13] leading to greater predictability for a would-be plaintiff of the eventual outcome of a *follow-on* case, making this the less risky option.

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[10] We think this a reasonable assumption in most cases given that a de novo case will typically involve the resolution of a bilateral dispute between two firms, whereas a case before the competition authority may involve wider parties. More generally, a competition authority is likely to look at a broader range of issues or markets than would a private litigant.

[11] It should be noted, however, that under Regulation 1/2003 both the Commission and national competition authorities have power to impose interim remedies (Articles 8 and 5 respectively).

[12] See e.g. Bremmer (2005), who looked at the effect of a lenience program on the length of a competition authority investigation. He concludes (p.34): "Information revelation may be accompanied by a reduction of investigation and prosecution cost which we proxy by the duration of the investigation. Surprisingly, there is no statistically significant relationship between investigation duration and cooperation, although the average duration of an investigation decreased after adopting the leniency program. Perhaps, this is attributable to the fact that while investigation is facilitated by induced self-reporting, prosecution becomes more expansive as the assessment of penalties gets more time-consuming."

[13] Thus Stephenson (2005, p. 116) “without the involvement of an expert government agency in the course of litigation, the risk of erroneous decisions in private actions may increase, as courts must decide difficult issues without the benefit of an administrative record or the agency’s expert opinion.” There are some cases, such as restrictive practices cases, which are close enough to contract cases that the court will feel comfortable to proceed without specialist knowledge and without increasing the risk of errors . In other cases, arguments are so

3 The Incentives to initiate a *de novo* case

Given the relative benefits to society of *de novo* over *follow-on* cases, it is important to understand how to optimise an enforcement system (comprising of both public and private elements) so that plaintiffs with access to sufficient information to secure an infringement finding do so without relying upon public resources. The aim of this section is to provide a simple model to highlight the incentives of a plaintiff to bring respectively a *de novo* and a *follow-on* case. The results from the model will assist us in considering issues of mechanism design having regard in particular to the nexus between public and private enforcement routes.

The scenario we are considering is one in which a potential plaintiff has obtained some information which points to a violation of competition law by which it has been harmed.[14] To highlight the importance of private litigation to reveal private information held by the plaintiff, we assume that if the potential plaintiff does not act upon this information, nothing will happen.[15] If the potential plaintiff decides to use the information, it can do so in two different ways. It can use it as the starting point for a *de novo* case, where the plaintiff would provide the necessary resources to investigate the case. Alternatively, the potential plaintiff could pass (some of) the information to the competition authority in the hope that they would take up the case and provide the resources for a full investigation. Depending on the outcome of this investigation, the plaintiff could then initiate a *follow-on* case. In choosing between these alternative courses of action, we will assume that the plaintiff will select the one which yields the greatest possible expected monetary benefits.[16]

We will use the following notation. Let δ be the per-period discount factor, $0 < \delta \leq 1$, where values close to 1 indicate a high level of patience. Thus one pound t periods from now

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complex and subject specific that a more specialist court such as the UK Competition Appeal Tribunal appears a better choice and where one would expect *follow-on* cases to lead to strictly fewer errors.

[14] We explicitly exclude *follow-on* cases where future plaintiffs only learn about the infringement during or after the competition authority's case. Such future plaintiffs do not add to the number of competition law infringements uncovered.

[15] The assumption that plaintiffs have better information is common to a number of theoretical studies such as Baker (1988) and McAfee et al (2006). Our assumption does rule out cases where several potential plaintiffs have relevant information. The added complication of such a scenario is that each may wait for the other to initiate the case.

[16] This amounts to assuming that the plaintiff is risk neutral. A risk averse plaintiff, faced with two possible lotteries, such as a court case or a settlement, each having the same expected returns, would prefer the one with less variability. Since the *de novo* case is more risky because the probability of losing and hence having to pay the defendants costs are higher than a *follow on* case, this assumption biases any decision between the two cases in favour of the *de novo* cases. The consequence of this is discussed further in the conclusion.

is worth δ^t today.[17] For simplicity we assumed the discount factor to be the same for both plaintiff and defendant. Let subscript N denote a *de novo* case while subscript F denotes a *follow-on* case. Let t_i be the time the case takes until there is a final decision for the plaintiff. For the follow-on case, this includes both the time taken by the initial case of the competition authority,[18] t_F^{CA}, and the time taken by the subsequent private case, t_F^{FO}. With this notation, the total length of the follow-on case is $t_F = t_F^{CA} + t_F^{FO}$. Let p_N be the probability assessed at the time of initiating the *de novo* case of the court finding in favour of the plaintiff. In the follow-on case, we assume that a finding of an infringement by the competition authority is conclusive evidence of a violation in the private follow-on case, while a non-infringement decision bars a follow-on case. Let p_F be the plaintiff's assessment of the probability that the competition authority finds a violation. Then the probability of the plaintiff carrying the day in a *follow-on* case, assessed at the date where the plaintiff pass the information on to the competition authority is also p_F.[19]

If a case goes to court, two outcomes are possible. The case is decided in favour of the plaintiff, in which case it receives damages, while the defendant pays damages and costs. The case is decided in favour of the defendant, in which case the plaintiff pays the share of costs determined by the cost allocation rules, while the defendant meets whatever costs are left unpaid by the plaintiff. Let D_i be the damages awarded to the plaintiff by the court and let C_i^P and C_i^D (i = N, F) be the costs of the plaintiff and defendant of a private case and let total

[17] The discount factor may be close to 1 because interest rates are very low and hence money keep their value. However, we can also interpret the discount factor as a way to capture whether or not the award includes pre-trial interest. If not, the discount factor would all else being equal be smaller as getting the award later is less valuable in present value terms.

[18] In this paper we will assume that this is the time it takes the competition authority to reach a decision. A more realistic interpretation would be the time at which the plaintiff would be able to acquire information from the authority which the private court would take as evidence of a violation. The length of time would in part depend on discovery rules but also about the view taken on appeals. Within the EU/UK, the establishment of a violation cannot be used in a private case until all avenues of appeal have been exhausted. Thus the period could potentially be very long.

[19] Unlike Kauper and Snyder (1985), we assume that both plaintiff and defendant have the same assessment of the likelihood of plaintiff success. Differences in assessments can lead the two parties to go to court rather than to settle, which wastes resources and hence lead to worse outcomes for both parties. Kauper and Snyder show that difference can lead the plaintiff to prefer a *follow-on* case. For simplicity we assume that an infringement finding by the competition authority will result in an award to the plaintiff should the case come to court (ignoring other obstacles which might include causation, quantification, antitrust injury, standing and the availability of a passing-on defence). This is appropriate given that the principles governing such issues have not been given much consideration by the national and Community courts.

costs be $C_i \equiv \left(C_i^P + C_i^D\right)$.[20] Finally, assume that a winning plaintiff never pays its own costs, while a losing plaintiff will pay a fraction λ of the defendant's costs so that the total costs to the plaintiff loses a *de novo* case is given by $C_N^P + \lambda \cdot C_N^D = C_N - (1-\lambda) \cdot C_N^D$. This formulation gives us the flexibility to compare rules from different jurisdictions.[21]

The expected gross gain to the plaintiff who wins at time t_i is then $p_i \cdot D_i$ while the corresponding expected loss to the defendant is $p_i \cdot (D_i + C_i)$ as he pays the full costs of the case. The expected gross loss to the plaintiff who loses is $(1-p_i) \cdot \left(C_N - (1-\lambda) \cdot C_N^D\right)$, while the corresponding loss to the defendant is $(1-p_i) \cdot (1-\lambda) \cdot C_N^D$.

The expected outcome of the court case provides the backdrop for negotiations to reach an out-of-court settlement. The model assumes away asymmetries in beliefs about the probability of the plaintiff winning as well as asymmetries in information about the fundamental parameters of the case. This removes the typical obstacles to plaintiff and defendant reaching a settlement in order to save legal costs. In what follows, we assume that a settlement is reached.

3.1 The expected outcome of a de novo case

The expected present discounted monetary value to the plaintiff of a *de novo* case can be written as:

$$S_N^P = \delta^{t_N} \cdot \left(p_N \cdot D_N - (1-p_N) \cdot \left(C_N - (1-\lambda) \cdot C_N^D\right)\right)$$

The first term in the bracket is the expected gross gain and the second is the expected costs of the case. As this arises at date t_N, it has to be discounted back to the date when the plaintiff is making its decision about how it wishes to use its information. Given this expected net gain, the plaintiff in a *de novo* case would never settle for less than S_N^P.

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[20] This does not include indirect costs such as the time management is tied up in the case providing information or evidence or loss of reputation.

[21] This fits both the UK and the US. In the UK, generally the loser pays all costs including the defendants, $\lambda = 1$. This is the norm for most, but not all, EU member states. In the US the parties typically pay their own costs irrespective of the outcome of the case. However, exceptionally for private antitrust cases, the plaintiff does not pay her own costs if successful, only if unsuccessful, hence $\lambda = 0$. While there is some possibility of using a no-win-no-fee agreement with the legal team, note that this payment method is not well suited to the English cost allocation system of loser pays. The way this has commonly been addressed in the UK is for the plaintiff to take out insurance, however in cases which can run into millions of pounds, this does not seem an attractive option for many.

The expected present discounted monetary value of the total cost of the case to the defendant is derived in a similar manner and is given by:

$$S_N^D = \delta^{t_N} \cdot \left(p_N \cdot (D_N + C_N) - (1 - p_N) \cdot (1 - \lambda) \cdot C_N^D\right)$$

Note that the defendant will not settle for more than S_N^D. Assume that settlement can be achieved before any of the costs are incurred. Then the difference between the minimum for the plaintiff and the maximum for the defendant gives us the range for potential settlement, $S_N^D - S_N^P = \delta^{t_N} \cdot C_N$. As should be the case, the gain from settling is the present discounted value of the total costs saved. There is a number of different ways in which this could be split, depending on the bargaining power of the two parties to the case. We will assume that the gains from settling is split evenly, but nothing rests on this. Thus the expected gain to the plaintiff from a *de novo* case is

$$S_N = S_N^P + \tfrac{1}{2} \cdot \delta^{t_N} \cdot C_N = \delta^{t_N} \cdot \left(p_N \cdot D_N + \tfrac{1}{2} \cdot C_N - (1 - p_N) \cdot \left(C_N - (1 - \lambda) \cdot C_N^D\right)\right) \qquad (1)$$

Note that S_N can be negative even if D_N is positive and hence a plaintiff might not bring a meritorious case as a *de novo* case. Secondly, the value of the case depends on the cost allocation rule. Intuitively, the more a plaintiff might have to bear of the costs, the less generous a settlement it will obtain. Thus as one might expect, the asymmetric fee shifting rule in the US provides more of an incentive to pursue a *de novo* case.

3.2 The expected outcome of a follow-on case

We will for simplicity assume that the plaintiff never starts a follow-on case unless the competition authority established a violation and hence will never lose a case. Moreover we would expect the costs of the plaintiff to be modest relative to the costs of a *de novo* case. Given this, the expected present discounted monetary value to the plaintiff of a *follow-on* case evaluated at the date at which the competition authority case has been decided, conditional on a finding of a violation, can be written as:

$$S_F^P = \delta^{t_F^{FO}} \cdot D_F$$

The corresponding expected costs to the defendant is:

$$S_F^P = \delta^{t_F^{FO}} \cdot (D_F + C_F)$$

As in the *de novo* case, the gains from settling are the present discounted value of the costs saved, but in this case discounted back to the beginning of the *follow-on* case, $\delta^{t_F^{FO}} \cdot C_F$. As above, assume that the plaintiff and defendant split this gain from settlement equally. The expected gain to a plaintiff at the point. The expected value of a *follow-on* case at the date at which the competition authority case has been decided is then $S_F^P + \frac{1}{2} \cdot \delta^{t_F^{FO}} \cdot C_F$ if the authority finds a violation and 0 otherwise. Given the probability with which the authority finds a violation, the present discounted value of the *follow-on* case at the point when the plaintiff considers using the information is then given by:

$$S_F = \delta^{t_F^{ca}} \cdot p_F \cdot \left(S_F^P + \tfrac{1}{2} \cdot \delta^{t_F^{FO}} \cdot C_F\right) = \delta^{t_F} \cdot p_F \cdot \left(D_F + \tfrac{1}{2} \cdot C_F\right) \qquad (2)$$

Note that the plaintiff has a strong incentive to talk up the cost of a *follow-on* case in order to get a bigger offer of a settlement. This adverse effect on the incentives to keep the costs of legal cases low is stronger than that found by Wagener (2003) for the one-way fee shifting system.[22] Secondly, S_F is always positive and even if the case has little or indeed no merit, the plaintiff has an incentive to inform the competition authority.[23] If there is no downside to passing information about a potential violation on to the competition authority, such information should be treated with scepticism.

3.3 Comparison and analysis

Comparing the two expected gains, a *de novo* case will be preferred by the plaintiff if $S_N > S_F$. We can write this as

$$\delta^{t_N} \cdot \left(p_N \cdot D_N + \tfrac{1}{2} \cdot C_N - (1 - p_N) \cdot \left(C_N - (1 - \lambda) \cdot C_N^D\right)\right) > \delta^{t_F} \cdot p_F \cdot \left(D_F + \tfrac{1}{2} \cdot C_F\right) \qquad (3)$$

which we can rewrite as:

$$\delta^{t_N} p_N \left(D_N - \tfrac{1}{2} C_N\right) - \delta^{t_F} p_F \left(D_F - \tfrac{1}{2} C_F\right) > \tfrac{1}{2} \delta^{t_N} (1 - p_N) \cdot C_N - \delta^{t_N} (1 - \lambda)(1 - p_N) C_N^D \qquad (4)$$

Where the inequality in (4) holds, the expected value of a *de novo* case to a plaintiff is higher than the expected value of a *follow-on* case and hence the plaintiff faced with relevant

[22] Wagener show how the US system of one-sided fee shifting in antitrust cases, whereby if the plaintiff wins the loser pay all costs but if the defendant wins, each pay own costs, create incentives for frivolous suits aimed solely at rent extraction. In particular he shows that the plaintiff has a disproportionate incentive to increase its trial costs, making the defendant willing to offer more to settle the case before these costs are accrued.

[23] A more realistic model would include costs to the plaintiff both from what the competition authority might find that could harm the plaintiff and more importantly subsequent costs to the plaintiff from how other firms might deal with it in the future.

information will prefer to initiate a *de novo* case rather than pass information on to the competition authority.[24]

We can establish our first result by comparing the inequality in (4) when $\lambda = 1$, where loser pays all as is common within the EU, with the inequality in (4) when $\lambda = 0$, where there is asymmetric cost shifting as in the US. The right-hand-side is clearly bigger when $\lambda = 1$ so that the inequality is harder to satisfy in a loser-pay jurisdiction, such as EU member states. The implication is that for cost allocation rules alone, all else equal *de novo* cases are more likely in the US than the EU.

As we are trying to get a feel for when *de novo* cases are more likely, we will focus on the EU case of $\lambda = 1$ in the remainder, so that (4) becomes:

$$\delta^{t_N} p_N \left(D_N - \tfrac{1}{2} C_N\right) - \delta^{t_F} p_F \left(D_F - \tfrac{1}{2} C_F\right) > \tfrac{1}{2} \delta^{t_N} \left(1 - p_N\right) \cdot C_N \qquad (5)$$

We would expect that the probability of finding a violation is no lower in the *follow-on* case than the *de novo* case, $p_F \geq p_N$, mainly because once the potential violation has come to light, the probability of satisfying the required standard of proof for finding a violation is higher when the expertise and the resources of the competition authority are brought to bear on the problem.[25] If one believes that the facts arising from the decision by the competition authority never undermines the assessment of harm made by the civil court, then is must be true that $D_F \geq D_N$ and hence damages are never lower in *follow-on* cases. Finally, we would expect that the costs in a *de novo* case to be much higher than in a *follow-on* case, $C_N > C_F$. First, the cost of establishing culpability has already been borne by the competition authority. Secondly, at least some of the information from the authority's case can be used in the assessment of causality and damages.[26] Thus the costs of the plaintiff is likely to be lower. Similarly, the costs of the defendant will likely be lower in a *follow-on*

[24] Note that we have assumed that the plaintiff is risk-neutral. If the plaintiff is risk averse, the balance swings in favour of *follow-on* cases because these are assumed risk-free.

[25] The one thing which goes against this assumption is that the standard of proof in *de novo* cases is likely the civil "on the balance of probabilities". Although it is still unclear exactly what standard of proof the competition authorities in the UK will be held to, it appears from *JJB Sports plc v OFT [2004] CAT 17, [2005] CompAR 29* (para 204: "strong and compelling" evidence) to be higher than the civil standard. Note that a *follow-on* case would be locked into this higher standard of proof unless a *follow-on* action could be pursued where the competition authority did not find a violation. This has the potential to create an inconsistency in what has to be proven. The exact effect is at present unclear and is the subject for further research.

[26] See also the discussion in Rodger and MacCulloch (1998, p. 588) on the value of public information for private litigants.

case.[27] The implication of this is that $p_N(D_N - \frac{1}{2}C_N) > p_F(D_F - \frac{1}{2}C_F)$ and that the difference is the smaller, the more alike are the two cases in terms of their probability of success, their level of damages and their costs. Note that the right-hand-side of (5) is always positive and hence for (5) to be positive, it is a necessary condition that the left-hand-side is also positive. The only way in which this can be true is if $\delta^{t_N} > \delta^{t_F}$, which in turn, as $0 < \delta \leq 1$, imply that $t_N < t_F$, *i.e.* the *de novo* case must reach an outcome quicker.

Finally, if $t_N < t_F$, the closer is $p_N(D_N - \frac{1}{2}C_N)$ to $p_F(D_F - \frac{1}{2}C_F)$, the bigger is the number of the left-hand-side of (5), and as the right-hand-side is independent of D_N, decreasing in p_N and increasing in C_N, the closer are the probability of success and the damages and the costs in the two cases, the more likely is (5) to hold and hence the more likely is the *de novo* case to be preferred by the plaintiff.

Summing up, the model demonstrates that the key to getting more *de novo* cases is that these cases must reach a conclusion much quicker than *follow-on* cases. The intuition is fairly obvious once one realises that *follow-on* cases have more going for them in terms of all the other relevant parameters, that is damages and costs and in particular the probability of success. The only way that a *de novo* case could be more attractive is if it is resolved faster. If *de novo* cases are resolved faster, then they are more likely where there is little difference between the two types of cases since in that case the inherent advantage of the *follow-on* is the smallest. Thus apart from the quicker resolution, all other aspects of the two types of cases should be as similar as possible.

4 Policy

With the insights derived from this stylised model to hand, what can we say about how to encourage de novo cases? We will focus the discussion on the areas of collusion, predation and restrictive practices such as foreclosure.

For collusion, direct buyers - the plaintiffs with relevant information and incentives to oppose the practice - are, outside the list of conspirators, best placed to have information that an infringement may have taken place. However, in gathering the necessary subsequent

[27] Of course, the would-be defendant will incur costs in defending an infringement decision by a competition authority. These are, however, costs which the defendant will incur irrespective of whether or not a follow-on case ensues and, because they are not recoverable, are not relevant to it when it is considers how much to offer in settlement.

information to ensure that a court would find a violation, these firms have a lesser prospect of doing so than the competition authority: even in those jurisdictions like the UK with the most generous discovery rules, the competition authority is always in a superior position from an information gathering point of view. Moreover, plaintiffs do not have access to a powerful leniency policy instrument.[28] With this informational disadvantage, a private plaintiff in a *de novo* case would not just face considerable cost in establishing an infringement but also the probability of such a finding would be lower. Historically, cases involving allegation of collusion have been protracted whether pursued privately of publicly.[29] Where defendants can use the passing-on defence against direct purchasers, the level of damages awarded may be much reduced. At the same time, indirect purchasers may not have relevant information about the infringement. Thus we would expect considerable asymmetry between the two types of cases when it comes to damages, costs and probability of success, making a *de novo* case much less likely. Without a large carrot such as multiple damages and no passing-on defences, it is hard to see how such offences would attract *de novo* cases. With such carrots, we might get such cases.[30] Recent empirical work in the US suggest that there is a number of *de novo* cases involving allegation of anti-competitive agreements, see Lande and Davis (2006).

For predation, the plaintiff is likely a rival and, where used non-strategically, time will be of the essence since if the predation is not brought to an end the plaintiff may well go out of business. Such cases are good candidates for *de novo* cases. However, the plaintiff will need to be in possession of information concerning the cost structure of its competitor in order to satisfy the cost floor rules for predation. It is arguable that, even without precise cost information, a competitor will be in a better position than a competition authority to adduce evidence of predatory pricing given its location in the market in question. Where prices exceed the lower floor (normally average variable costs) but not the upper floor (average total costs) the plaintiff may also need to show that there was an exclusionary intent on the part of the defendant which is arguably as difficult as obtaining evidence in a cartel case. While we might get such cases it is necessary to have adequate safeguards in place to deter strategic

[28] They could in theory offer one of the cartel members to settle for a minimal amount in return for incriminating evidence about the other cartel members. The legality of such an approach is far from clear. For a discussion of joint and successive actions, see Deakin et al. (2003, p. 850-865).

[29] The average time for a cartel decision in the EU is after the introduction of the 1996 leniency programme 42 months, and this is before taking appeals into consideration.

[30] As multiple damages and no passing-on also encourages strategic misuse of private enforcement, there should be a careful assessment of the net effect before any introduction.

litigation. As many have pointed out, see in particular Crane (2005), firms have an incentive to misuse private litigation as an opportunity to price signal. Thus in this case, the revelation of information facilitated by litigation also comes with certain dangers.

For restricted practices, the plaintiff is prevented by an agreement with the defendant from doing what it wants to, for example, by an exclusive purchasing obligation. Such cases may well be costly to pursue because the issues of whether the practice is illegal and how much the plaintiff has been harmed are complex. The competition authority has no obvious advantage in informational terms and while it may have more expertise in competition matters, many of these cases are closely related to contract cases where courts have an advantage in terms of experience. Hence, the cost advantage of following-on may be less pronounced. The deciding factor here is likely to be whether it is quicker to pursue a *de novo* case and possibly even whether it would be even quicker to pursue the matter as a contract case.[31] However, if these cases are such that we cannot distinguish between private suits aimed at opportunistic contract modification and those aimed at alleviating damaging restraints of trade, private enforcement may still end up doing more harm than good. Again, it is necessary to have in place safeguards to deter strategic litigation.

5 Conclusions

In this paper we have looked at the conditions necessary to encourage plaintiffs with the relevant private information about violations of competition law to opt for *de novo* rather than *follow-on* cases. Where plaintiffs have in their possession the necessary information, or where this information can be readily obtained through efficient discovery rules, de *novo* cases add more to overall enforcement than do *follow-on* cases and do so in two different dimensions. Firstly they lead to revelation of more and better information and secondly they lead to more cases being pursued, thus providing a genuine addition to the enforcement resources of the competition authority. While *follow-on* cases can lead to some information revelation, they never lead to additional cases being pursued

To encourage this beneficial form of private enforcement which increases the overall level of enforcement we need to ensure firstly that decisions are reached as quickly as possible and certainly far quicker than is the case for follow-on actions. Secondly, it is

[31] Salop and White (1986, p. 1048-49) investigate this for the US Georgetown Study sample and find that contract like cases are not resolved quicker. But here triple damages skews the analysis, since plaintiffs may be willing to wait for the triple damages rather than getting an even quicker resolution to its predicament.

important that damages, costs and the likelihood of winning are as similar as possible in the two types of cases. In terms of policy this may favour asymmetric cost allocation and the use of specialist courts. It then matters how procedures are designed. In the UK, private litigants can either pursue the case in the High Court (Chancery Division) or the Competition Appeals Tribunal (CAT). The latter is a specialist court and hence would be an ideal forum for *de novo* cases. However, in general claims may only be brought before the CAT when the relevant competition authority (namely the OFT or sectoral regulator or the European Commission) has made a decision establishing that one of the relevant prohibitions has been infringed, and any appeal from such decision has been finally determined. Thus the CAT can only be used in *follow-on* cases, while *de novo* cases must be brought through the High Court.

The results in the paper also have implications for the sort of cases which are likely to be pursued, with the most likely being those where the future of the plaintiff is threatened, such as predation cases or vertical restraints cases. In such instances the possible benefits of bringing a case (by either route) goes beyond the award of damages; it extends to gains from securing that the anticompetitive practice ceases. For the purposes of the model advanced in this paper, we can capture this through an increase in the impatience of the plaintiff. This could either be through a lowering of the per period discount factor, or even through the discount factor being zero after a point in time. A reduction in the discount factor ensures that the value of a quick resolution is increased. In any case, more speedy resolution of cases, including appropriate incentives to settle, brings with it wider benefits to society.

Given the need to encourage efficient forms of litigation, incentives to settle should be maintained. Such incentives should, however, not run counter to the bringing of de novo cases in favour of follow-on cases. Kauper and Snyder (1985) were concerned with the incentives for firms to settle their case and with what makes settlement more likely. In their model, cases do not settle when the two parties differ too much in their assessment of the probability that the plaintiff will succeed.[32] Because it is possible that both parties to a *de*

[32] With complete information all cases should settle. The law and economics literature on tort identify two broad classes of models in which settlement may not happen. One class, to which the Kauper and Snyder (1985) model belongs, assume differences in assessments and is often referred to as the "differing perception" model since both parties are reluctant to settle as the overestimate the quality of their own case. The other class, often referred to as the "asymmetric information" model, assume asymmetry of beliefs so that the plaintiff is better informed about the strength of its case. To settle all possible cases, the defendant has to make the plaintiff with the best possible case accept the offer. This means that in most cases the defendant is paying too much and it is better to lower the offer and accept that there is a chance of a rejection and a subsequent court case. For a survey of these models, see Miceli (1997, ch. 8). For a survey of the economic approach to litigation, see Cooter and Rubinfeldt (1989)

novo case are too optimistic about their own chance of success, they may fail to settle and this lowers the expected returns to the plaintiff of initiating such a case. The outcome in a *follow-on* case is much more of a foregone conclusion,[33] and settlement should happen for sure in those cases. Their conclusion is that because of the much reduced risk of the case going to court rather than being settled, plaintiffs may prefer to wait and initiate a *follow-on* case.[34] This result is important because it provides yet another reason for a bias towards *follow-on* cases. Given this systemic bias in favour of follow-on cases, there may be good reasons to strengthen the incentives of a plaintiff to pursue *de novo* cases instead. One way would be to recover some of the costs of the competition authority in a follow-on case. This would be justified given the free-rider problem that we have referred to throughout this paper. On the other hand, this rule would have little or no effect if the cost rule would result in this cost being recovered from the defendant rather than the plaintiff.

The model in section three made a number of simplifying assumptions which deserve some mention. Unlike Kauper and Snyder (1985) we assume that the two parties agreed on the probability of the plaintiff winning the court case. Relaxing this assumption would as argued above make the *follow-on* case more attractive to the plaintiff since it would settle for sure and hence, at least on average, save legal costs. Secondly, we assumed that the plaintiff was risk-neutral. As such it only cared about the average outcome, not about how risky each individual case is. As plaintiffs in competition cases typically are much smaller firms than the defendant (Salop and White (1988)), one might think it reasonable to assume that they are averse to risk.[35] If the plaintiff is risk averse, again the *follow-on* case is much more attractive as it is (much more of) a sure thing.

The availability of treble damages in the US gives strong incentives for firms to pursue private actions. Analysing the empirical analysis of data the Georgetown study, Kauper and Snyder (1985) find that for the 1973-1983 period, *follow-on* cases in the US represented less than 20% of private cases. This result is misleading, however, for two reasons. First, follow-on cases involved significantly larger amounts of money, partly

[33] The problem of establishing causation as well as the size of damages should not be underestimated, but there is much greater scope to disagree on whether a court or competition authority would find a violation.

[34] We will count credible threats of pursuing a case as an initiation. Note that unlike the US, cases un the UK and EU which are settled leave very little evidence of their existence.

[35] That is, faced with two possible lotteries, such as a court case or a settlement, each having the same expected returns, they would prefer the one with less variability.

because of an over representation of price-fixing cases. Secondly, many of the cases in the Georgetown Study appeared to be contract cases rather than antitrust cases, the triple damages rule itself distorting the incentives to pursue the antitrust rather than the contract route.[36] Of course, such cases can only be pursued de novo. Those problems aside, the adoption of a treble-damages rule (or other such device) in de novo cases only could be used to give incentives to plaintiffs to pursue de novo instead of follow-on actions. This is appropriate given that the asymmetries which exists between the two alternative routes.

We noted at the beginning the need to view the enforcement regimes – public and private - as part of a unified system. In that context we observed that increased private enforcement may alter the behaviour of the competition authority, for example, by its applying a higher level of scrutiny to the evidence of complainants. The prospect of an increased use of private enforcement may also influence the competition authority in the manner in which it selects the cases it wishes to take forward. For example, where a complainant reveals to the authority information sufficient for the complainant itself to secure an infringement finding (or where such information would be readily available under discovery rules) the authority may well wish to forebear from intervening.

The overriding message of this paper is the complexity of designing an appropriate private litigation regime which on the one hand promotes those cases which increase welfare in society but at the same time limits any adverse effects from strategic behaviour. An appropriate design will include checks and balances and must recognise that marginal changes to design may have either no or alternatively very large effects. Just one missing piece of the puzzle may mean that the private enforcement does not work at all. Finding that last piece, however may lead to a significant jump in use.

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[36] Given subsequent reforms, the Georgetown study is less reliable as a guide to current practices. Work currently undertaken by the American antitrust Institute and reported on in Lande and Davis (2006) promises to provide more up to date information. In the 29 case studies completed, there is a surprising number of *de novo* cases. While 12 are pure *de novo* cases and 4 are mixed public-private cases, a further 9 cases go well beyond the public case whey were following-on.

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