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**Rebating Antitrust Fines to Encourage Private  
Damages Actions**

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**DISCUSSION PAPERS**

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# Rebating Antitrust Fines to Encourage Private Damages Actions\*

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## Abstract

To encourage private actions for damages in antitrust cases some jurisdictions subtract a fraction of the redress from the fine. We analyze the effectiveness of this policy. Such a rebate does not encourage settlement negotiations that would otherwise not occur. If, however, the parties settle without the rebate, the introduction of the reduction increases the settlement amount, yet at the price of reduced deterrence for those wrongdoers who are actually fined. Under a leniency program the rebate has no effect on the leniency applicant: she doesn't pay a fine that can be reduced. The overall effect of a fine reduction on deterrence is, therefore, negative.

Keywords: antitrust, damages, deterrence, leniency.

JEL: D43, K21, K42, L40

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# 1 Introduction

Antitrust rules are enforced publicly by competition agencies through fines etc. Moreover, they can be enforced privately by the victims of an infringement through damage actions. In quite a few jurisdictions there is concern about the underdevelopment of private antitrust enforcement. For example, while in the US private cases already amount to at least 90% of antitrust enforcement, in the EU no more than 10% of antitrust enforcement was private.<sup>1</sup> During the period 2006-2012 less than 25% of the Commission's infringement decisions were followed by private damages actions. Cases were mostly brought in Germany, the Netherlands, and the United Kingdom, while no follow-on actions were reported in 20 out of 28 member states.<sup>2</sup>

Several factors contribute to this underdevelopment: Typically, jurisdictions in Europe do not allow for collective actions and do not award punitive damages. The plaintiff in a civil suit does not have the means of an antitrust authority like dawn raids etc. to prove the infringement.<sup>3</sup> Finally, the plaintiff assumes substantial expense risk, in particular if the English cost allocation rule applies and contingency fees are not allowed.

To encourage private antitrust enforcement the EU adopted Directive 2014/104/EU in 2014. The Directive establishes the right of victims to obtain full compensation for the harm caused by an anti competitive conduct. Full compensation includes actual losses and loss of profit, plus interest from the time the harm occurred until compensation is paid. In order to ensure that the right to full compensation is effectively guaranteed, the Directive introduces a number of measures which should facilitate antitrust damages claims in EU Member States.<sup>4</sup>

One measure that has been put forward lately is to subtract part of

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<sup>1</sup>EU (2006).

<sup>2</sup>OECD (2015).

<sup>3</sup>The burden of proof is, however, lower in a civil than in an administrative suit.

<sup>4</sup>For details about the measures, see, e.g., OECD (2015).

the redress paid to the victims from the fine. For example, in its decisions *Strassenbau* and *Engadin II* (3.9.2019), the Swiss Competition Commission subtracted half of the settlement payment paid by the bid rigging construction companies to the victim (the Canton of Graubünden) from the wrongdoers' fines.<sup>5</sup> Likewise, in June 2014 the Israeli Antitrust Tribunal approved a consent decree reached between Israeli banks who allegedly exchanged information and the Israeli Antitrust Authority providing that the entire settlement payment would be subtracted from the wrongdoers' fine.<sup>6</sup>

The EU also allows for this possibility. For instance, the Directive (EU) 2019/1 of the European Parliament and of the Council states: (47)...“ NCAs (national competition authorities) should be able to take into account any compensation paid as a result of a consensual settlement” and in Article 14(2) “Member States shall ensure that national competition authorities may consider compensation paid as a result of a consensual settlement when determining the amount of the fine to be imposed for an infringement of Article 101 or 102 TFEU, in accordance with Article 18(3) of Directive 2014/104/EU.”<sup>7</sup>

In this paper we analyze whether rebating fines indeed stimulates private damage actions. Furthermore, we study the effects on deterrence, in

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<sup>5</sup>[www.news.admin.ch/newsd/message/attachments/58229.pdf](http://www.news.admin.ch/newsd/message/attachments/58229.pdf)

<sup>6</sup>See H'43129-03-10 Bank Hapoalim Ltd. v. Director General of the Israeli Antitrust Authority (15.6.2014).

<sup>7</sup>[eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L&...2019.011.01.0003.01.ENG&toc=OJ:L:2019:011:TOC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L&...2019.011.01.0003.01.ENG&toc=OJ:L:2019:011:TOC). In two cases, *Pre-Insulated Pipes Cartel* [1999] OJ L24/1 and *Nintendo* [2003] OJ L255/33, the European Commission granted reductions of fines in recognition of the fact that the wrongdoers had paid substantial compensation. The European Commission refused to grant reductions in other cases. The EC Court of First Instance confirmed in *Archer Daniels Midland v Commission* [2006] ECR II-3627 that there is no obligation to grant such reductions. The UK offers to reduce the fine by 5-10% should an undertaking make a voluntary redress in the processing on imposing penalty. In Korea the competition agencies can apply a 20-30% reduction. In Turkey the fine can be reduced at a rate of 25-60%. In Canada restitution is a factor that can be taken into account by a court in imposing a sentence for a criminal offence. The Dutch and Spanish competition authorities take into account voluntary compensation as a mitigating circumstance in setting the fine. In the US the Department of Justice does not grant rebates; there voluntary compensation is one of the conditions for obtaining leniency. See Wils (2009), OECD (2015), and Cartel Working Group (2019).

particular if a leniency program applies.

A firm has been fined by the antitrust authority for anti competitive behavior. The victim seeks damages. The victim and the firm may settle the case out-of-court. The competition authority subtracts a fraction of the settlement payment from the wrongdoer's fine. If they do not reach a settlement, the victim can take the case to court.

The players' payoffs from going to court determine their threat points in the bargaining stage. They split the surplus created by settlement evenly. If the plaintiff does not go to court in the last stage, his outside option whilst bargaining is zero. The defendant will, therefore, not offer to settle. This holds independently of the amount that is subtracted from the defendant's fine. Rebating the fine thus does not stimulate settlements that would otherwise not occur.

If the plaintiff goes to court, the parties settle without the rebate. Introducing the reduction increases the settlement amount: the rebate increases the surplus and at the same time lowers the defendant's marginal cost of settling. Thus, if parties settle without the rebate, its introduction increases the settlement amount.

Ex ante the prospect of paying the fine and the settlement potentially deter the defendant. The rebate lowers the fine and at the same time increases the settlement. In our set-up the first effect is stronger than the second one—deterrence, therefore, goes down.

Finally, we look at a leniency applicant under a leniency program. Since the leniency applicant is exempted from the fine, she does not care about the rebate. The rebate reduces deterrence for non whistle blowers. It does not affect deterrence for the leniency applicant. The relative incentive to turn the cartel members in, therefore, goes down. Consequently, the overall effect of a rebate on deterrence is negative.

Rebating fines is thus not a clever idea in our framework. It does not stimulate settlements that would otherwise not take place. If parties settle

without the reduction, the rebate increases the settlement amount—however, at the price of reduced deterrence. Moreover, the rebate makes it less attractive for a cartel member to blow the whistle under a leniency program.

The rest of this paper is organized as follows. The next section describes the model. In section 3 we derive our results on settlement and deterrence. The last section concludes. In the Appendix we show that our results also hold for any division of the settlement surplus as well as for the Nash Bargaining Solution.

## 2 Model

A firm has engaged in anti-competitive behavior by, e.g., participating in a cartel. The competition authority has, therefore, levied the firm a fine  $f > 0$ . The victim of the infringement contemplates obtaining damages from the wrongdoer in a civil suit.<sup>8</sup>

If the victim decides to go for damages, the parties first try to reach an out-of-court settlement; the victim then gets  $s \geq 0$  from the wrongdoer and drops the case. If settlement negotiations fail, the victim/plaintiff can take the firm/defendant to court. Going to court costs each party to the conflict  $c > 0$ . The court awards (expected) damages  $D > 0$  to the plaintiff. Going to court thus generates payoffs  $D - c$  for the plaintiff and  $-f - D - c$  for the defendant.<sup>9</sup>

The payoffs from the court's decision determine the players' outside options/threat points in the settlement negotiations. We do not model the bargaining process explicitly. We rather assume that the settlement amount

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<sup>8</sup>We model private enforcement as an action that follows on a public enforcement decision. Private enforcement can also be a stand-alone action—a civil action brought without any prior finding of competition law violation by an antitrust authority. In most jurisdictions private enforcement is, however, mostly represented by follow-on private actions; see OECD (2015).

<sup>9</sup>The firm made a profit and the victim suffered a loss from the anti-competitive behavior. Yet, these payoffs are sunk for the problem under consideration.

$s$  is determined such that the plaintiff gets half of the surplus generated by settlement.

The antitrust authority wants to stimulate settlement negotiations. It will subtract the fraction  $\lambda \in [0, 1]$  of the settlement payment from the fine. The wrongdoer will, therefore, end up with a net fine of  $f - \lambda s$ . Let  $f \geq 2D$ . Then the net fine is always non-negative and we avoid tedious sub cases.<sup>10</sup>

### 3 Results

We solve the game by backward induction. After negotiations have failed, the plaintiff takes the case to court if it has positive expected value, i.e., if  $D - c > 0$ ; otherwise, he drops the case, leading to a payoff of 0 for the plaintiff and  $-f$  for the defendant.

Let us now turn to the settlement stage. If the plaintiff drops the case, by settling the parties do not save the cost of going to court; the surplus consists only of the subsidy  $\lambda s$ . The plaintiff's outside option in the bargaining process is 0. Furthermore, he gets his share  $.5\lambda s$  of the surplus. Therefore, his payoff is  $.5\lambda s$  which he gets through the defendant's settlement payment  $s$ . Formally we have  $.5\lambda s = s$  which yields  $s = 0$ . Viewed from the defendant's perspective: she pays  $s$  to the plaintiff and gets only her share  $.5\lambda s$  of the surplus thus created.

Consider now the case where the plaintiff takes the case to court. By settling the parties save the cost  $2c$  and generate the subsidy  $\lambda s$ . The plaintiff's outside option is  $D - c$ . He gets his share  $.5(2c + \lambda s)$  of the surplus. Accordingly, his payoff is  $D - c + .5(2c + \lambda s)$  which he gets through the defendant's payment  $s$ . This means  $D + .5\lambda s = s$  which, in turn, yields  $s = D/(1 - .5\lambda)$ .

In the first stage, the plaintiff will go for damages if  $s > 0$  or equivalently  $D - c > 0$ ; otherwise, he will not try to collect damages.

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<sup>10</sup>In the Appendix we deal with general divisions of the surplus and the case of small fines. Furthermore, we derive the Nash Bargaining Solution.



To sum up: If  $D - c > 0$ , the plaintiff goes for damages. The parties agree on the settlement payment  $s = D/(1 - .5\lambda)$ . Without settlement the plaintiff would take the case to court. The plaintiff ends up with payoff  $s$  while the defendant gets  $-f - (1 - \lambda)s$ . If  $D - c \leq 0$ , the plaintiff will not go for damages. He has payoff 0 and the defendant ends up with  $-f$ .

### 3.1 Settlement Stimulation

This result has several interesting implications. If  $D - c < 0$ , the plaintiff will not litigate if asked to do so. In the negotiation stage, the threat to go to court is not credible. The solution concept of subgame perfection/backward induction implies that the defendant ignores empty threats and, therefore, offers no settlement. This result holds for any value of the rebate  $\lambda$ : Even if the full amount of the settlement can be subtracted from the fine (like in the Israeli case mentioned in the Introduction), there will be no settlement unless the plaintiff indeed takes the case to court. To stimulate settlement negotiations that would otherwise not take place, subtracting the settlement payment from the fine is ineffective. To trigger settlement bargaining, the plaintiff has to be induced to actually take the case to court. This can, e.g., be achieved by increasing  $D$  or lowering  $c$ .<sup>11</sup>

Consider now the case  $D > c$ . Here the plaintiff would take the case to court and the parties, therefore, agree on the settlement  $s = D/(1 - .5\lambda)$ . The settlement amount is increasing in  $\lambda$  at an increasing rate.<sup>12</sup> Thus, if the competition authority wants larger settlement amounts, increasing the fraction  $\lambda$  that can be subtracted from the fine is effective—given the parties engage in settlement negotiations in the first place.

The fraction  $\lambda$  influences the settlement via two channels. First, reducing the fine increases the surplus of not going to court, thus making the pie larger.

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<sup>11</sup>It seems difficult for the competition authority to influence  $D$  and  $c$  which are after all in the realm of the civil court. The antitrust agency could, e.g., grant access to documents from the anti-trust case to the plaintiff, thus lowering  $c$  and increasing  $D$ .

<sup>12</sup>Formally,  $\partial s/\partial \lambda = 2D/(2 - \lambda)^2 > 0$  and  $\partial^2 s/\partial \lambda^2 = 4D/(2 - \lambda)^3 > 0$ .

Second, the higher  $\lambda$  the lower the defendant’s marginal cost of settling: for each unit the plaintiff obtains, the defendant effectively only pays  $(1 - \lambda)$ . For example, in the aforementioned Israeli case where  $\lambda = 1$ , each Shekel the plaintiff got was entirely subtracted from the fine so that banks’ marginal cost was zero.<sup>13</sup>

### 3.2 Deterrence

Let us now turn to deterrence. Increasing  $\lambda$  increases the reduction in the fine, making the surplus from settlement larger. The surplus is shared equally, implying that not only the plaintiff but also the defendant benefits from a reduction in fine. Specifically, the defendant’s *total payment* is  $f + (1 - \lambda)D/(1 - .5\lambda)$  and it is this total payment that potentially deters. The total payment is decreasing at a decreasing rate in  $\lambda$ .<sup>14</sup> Increasing  $\lambda$  increases the settlement  $s$ . However, the fraction the wrongdoer can deduct also goes up and the second effect is stronger than the first one. Thus, the expected payment of a cartel member is lower, the higher the reduction in fine  $\lambda$ . Consequently, deterrence is weakened if firms anticipate the reduction in fine.

Given that the fine reduction weakens deterrence for an “ordinary” cartel member, it is interesting to analyze the effects on a leniency applicant under a leniency program.<sup>15</sup> Suppose the leniency program grants full leniency to the first applicant. Since the applicant’s fine is zero, it cannot be reduced in case of a settlement.

Consider now the two cases: If  $D \leq c$ , the plaintiff does not go to court. Thus,  $s = 0$ . If  $D > c$ , the plaintiff’s threat to sue is credible. The total

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<sup>13</sup>The two effects are reminiscent of the income and substitution effects in consumption resulting from a price decrease. The second effect is more pronounced in the Nash Bargaining Solution derived in the Appendix.

<sup>14</sup>Formally,  $\partial(1 - \lambda)s/\partial\lambda = -2D/(2 - \lambda)^2 < 0$  and  $\partial^2(1 - \lambda)s/\partial\lambda^2 = -4D/(2 - \lambda)^3 < 0$ .

<sup>15</sup>There is a fairly large literature on leniency programs; see, e.g., Motta and Polo (2003), Spagnolo (2004), or Chen and Rey (2013). For surveys see Harrington (2017) or Marvão and Spagnolo (2018).

surplus from an out-of-court settlement is  $2c$ , there is no fine that can be reduced. The plaintiff has the outside option  $D - c$  and gets half of the surplus  $2c$  through the settlement payment, i.e.,  $D - c + .5(2c) = s$  which yields  $s = D$ . The leniency applicant’s total payment of fine plus settlement is independent of  $\lambda$ . It is lower than the payments of her “ordinary” colleagues; yet, since their total payment is decreasing in  $\lambda$ , the difference between the two payments also shrinks. Thus, the relative attractiveness of blowing the whistle goes down with  $\lambda$ . This argument actually holds for any level of liability of the leniency applicant.<sup>16</sup> The fact that she pays no fine that can be reduced drives the result.<sup>17</sup>

## 4 Conclusions

In this paper we have analyzed the effects of rebating fines by the redress paid to the victims. This policy turns out to be fairly ineffective, if not counterproductive, in our set-up. It does not stimulate settlements that would otherwise not take place. If parties settle without the reduction, the rebate indeed increases the settlement amount—however, at the cost of reduced deterrence. Moreover, the rebate makes it less attractive for a cartel member to blow the whistle under a leniency program.

A few remarks are in order. Our results rely heavily on backward induction arguments. If the plaintiff does not take the case to court, he has no credible threat in the settlement negotiations. The defendant, therefore, offers no settlement in the first place, independently of the rebate. Backward

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<sup>16</sup>For example, in the EU Art. 11(4) of Directive 2014/104/EU provides “that an immunity recipient is jointly and severally liable as follows: (a) to its direct or indirect purchasers or providers; and (b) to other injured parties only where full compensation cannot be obtained from the other undertakings that were involved in the same infringement of competition law.” In the US the 2004 Antitrust Criminal Penalty Enhancement and Reform Act eliminates treble damages and joint liability for the amnesty recipient.

<sup>17</sup>Note that we do not answer the general question of whether or not damage actions reduce the attractiveness of leniency programs. This issue is, e.g., addressed in Buccirosi et al. (2019).

induction/subgame perfection is probably the most widely accepted refinement of the Nash equilibrium concept. Any results which are based on empty threats would not seem convincing to us.

Our parties have symmetric information about the damages the court will award. Suppose, by contrast, that the defendant knows the realization of damages while the plaintiff holds some noisy expectation thereof; the parties thus have asymmetric information.<sup>18</sup> If the plaintiff expects a negative value from litigation, the defendant offers no settlement payment. The plaintiff gets no new information through bargaining. He does not update his expectation and, therefore, does not litigate. This result corresponds to our symmetric information one. If the plaintiff expects a positive return from litigating, the parties will enter settlement negotiations. During these negotiations the plaintiff typically learns about damages, which necessitates a detailed modeling of the bargaining process.<sup>19</sup> We do, however, not anticipate major changes of our qualitative results from such an exercise.

For our results on deterrence the defendant needs to rationally foresee the fine reduction. This applies, e.g., if the rebate is a well established policy of the antitrust authority. This was probably not the case in the Swiss decisions. The Swiss Competition Commission granted the rebate for the first time in 2019. It seems unlikely that the construction companies anticipated the fine reduction when they engaged in bid rigging during the years 2004-2012. If the rebate is an unexpected or a random event like in the EU, it has no or little effect on deterrence.

We have focused on follow-on private actions which is the prevailing form of private enforcement. The analysis of stand-alone private actions raises some additional issues: Are there at all follow-on public actions with a fine that can be reduced? Does the antitrust authority subtract only uncontested

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<sup>18</sup>The plaintiff's expectation is common knowledge. Osborne (1999) presents some empirical evidence that defendants actually do better in predicting court rulings than plaintiffs.

<sup>19</sup>See, e.g., Kennan and Wilson (1993) or Spier (2007).

redress as in our set-up, or is contested redress also eligible? These questions are left for future research.

## Appendix

In this Appendix we generalize the surplus splitting to any division  $\alpha : (1 - \alpha)$  where  $\alpha \in (0, 1)$  is the plaintiff's share. Furthermore, we properly take into account that  $f - \lambda s \geq 0$ . Finally, we also derive the Nash Bargaining Solution.

Let us first generalize the framework of the main text: rather than getting 50% of the surplus created through settlement, the plaintiff may get any share  $\alpha \in (0, 1)$ .

If  $D - c \leq 0$ , the plaintiff will not take the case to court and  $s = 0$ . If  $D - c > 0$ , the plaintiff goes to court. His payoff is  $D - c + \alpha(2c + \lambda s)$  which he gets through the settlement payment  $s$ . Accordingly, the settlement is  $(D - c + 2\alpha c)/(1 - \alpha\lambda) =: \hat{s}$ . If  $\lambda \hat{s} \geq f$ , the defendant cannot subtract the entire amount  $\lambda \hat{s}$  from her fine but only  $f/\lambda$ . Settlement creates the surplus  $2c + f$  of which the plaintiff gets his share  $\alpha$ . We immediately obtain  $D + c(2\alpha - 1) + \alpha f =: \check{s}$  which is independent of  $\lambda$ . Accordingly, for  $D - c > 0$ ,

$$s = \begin{cases} \hat{s}, & \text{if } \lambda \hat{s} \leq f; \\ \check{s}, & \text{otherwise.} \end{cases}$$

The unconstrained  $\hat{s}$  is increasing in the plaintiff's share  $\alpha$  as well as in  $\lambda$ . The qualitative results derived in the main text continue to hold.

Let us now turn to the Nash Bargaining Solution (NBS) which yields a different outcome than the bargaining process considered so far.<sup>20</sup> In our framework  $s$  is not only a transfer of surplus from the defendant to the plaintiff; it is also a means to increase the size of the surplus.

Let  $\alpha \in (0, 1)$  denote the bargaining power of the plaintiff and  $(1 - \alpha)$  the bargaining power of the defendant. The plaintiff settles if  $s \geq \max\{0, D - c\}$ . The defendant can at most reduce his fine to zero, i.e., she settles if  $s + \max\{f - \lambda s, 0\} \leq D + c + f$ .

Consider first the case  $D \leq c$ . The NBS  $s^*$  maximizes

$$s^\alpha (-s - \max\{f - \lambda s, 0\} + f)^{1-\alpha}.$$

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<sup>20</sup>For more on the NBS see, e.g., Roth (1979). Binmore, Rubinstein, and Wolinsky (1986) analyze the relation between the static NBS and a sequential bargaining model à la Rubinstein (1982).

We have  $s^* = 0$  which is the same outcome as in the main text. With a non-credible threat of the plaintiff, there is no settlement payment.

Next suppose  $D > c$ ; the plaintiff's threat to sue is thus credible. If the parties settle, the plaintiff gets  $s$  and the defendant pays  $s + \max\{f - \lambda s, 0\}$ . The outside option if bargaining fails are  $D - c$  for the plaintiff and  $-D - c - f$  for the defendant. The NBS  $s^*$  maximizes

$$(s - D + c)^\alpha (-s - \max\{f - \lambda s, 0\} + f + D + c)^{1-\alpha}$$

which yields the solution

$$s^* = \begin{cases} \bar{s}, & \text{if } f \geq \lambda \bar{s}; \\ f/\lambda, & \text{if } \lambda \hat{s} \leq f < \lambda \bar{s}; \\ \check{s}, & \text{if } f < \lambda \hat{s}, \end{cases}$$

where  $\bar{s} := (1 - \alpha)(D - c) + \alpha(D + c)/(1 - \lambda)$ ,  $\hat{s} = (D - c(1 - 2\alpha))/(1 - \lambda\alpha)$ , and  $\check{s} = D + c(2\alpha - 1) + \alpha f$ .

If  $s^* = \bar{s}$ , we have qualitatively the same results as in the main text. The settlement is increasing at an increasing rate in  $\lambda$ .<sup>21</sup> The plaintiff's bargaining power as measured by  $\alpha$  determines the distribution of the surplus. The gains for the plaintiff are  $\bar{s} - (D - c) = \alpha(2c + \lambda(D - c))/(1 - \lambda)$ , and the gains for the defendant are  $(1 - \alpha)(2c + \lambda(D - c))$ . The plaintiff's gains more from the fine reduction than the defendant if  $\lambda \geq (1 - 2\alpha)/(1 - \alpha)$ . For  $\alpha$  small, a large  $\lambda$  is necessary for the plaintiff to gain more than the defendant; for  $\alpha \geq 1/2$  the plaintiff does better for any  $\lambda$ .

Finally, let us compare  $\bar{s}$  with  $s = D/(1 - .5\lambda)$ , the settlement with equal sharing of the surplus. The two approaches yield the same outcome for  $\alpha = (1 - \lambda)/(2 - \lambda)$ . Thus, the higher  $\lambda$ , the less bargaining power  $\alpha$  the plaintiff needs to obtain equal sharing of the surplus. The higher the reduction in fine, the less the defendant cares about the the settlement amount so that the plaintiff needs less bargaining power to appropriate half of the pie.

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<sup>21</sup> $\bar{s}$  is a supermodular function in  $\alpha$  and  $\lambda$ , thus the effect on  $\bar{s}$  from increasing  $\lambda$  is stronger the higher  $\alpha$ .

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