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## Legal Cost Insurance as a Strategic Device in Settlement Negotiations

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# Legal Cost Insurance as a Strategic Device in Settlement Negotiations

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## Abstract

The paper shows that Legal Cost Insurance (LCI) is a device to enhance potential litigants' bargaining position rather than to re-allocate risk. Being insured decreases the cost an insured party has to bear if settlement negotiations fail and the case goes to trial. This shifts the threat points, which has an impact on the bargaining result. In negative expected value suits, LCI can make the threat to sue credible and motivate potential defendants to make positive settlement offers. Hence, even risk-neutral agents may find it beneficial to insure.

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## 1. Introduction

In this paper, I analyze Legal Cost Insurance (LCI) as a strategic device rather than a tool to re-allocate risk. This analysis provides a new explanation why risk-neutral agents may find it beneficial to purchase insurance<sup>1</sup>. Legal Cost Insurance influences the interaction of the insured with other agents, e.g in settlement negotiations. This strategic approach has not been focussed on yet<sup>2</sup>. Under the strategic point of view, it is not the aspect of risk-allocation that makes LCI beneficial for potential litigants, but the improvement of their strategic position in a law suit. The model shows that risk-neutral potential litigants may have an incentive to purchase LCI even when the insurance premium exceeds the actuarial fair rate. This contradicts a standard result of insurance theory<sup>3</sup>. According to this traditional literature, demand for insurance at a premium above the fair rate should be explained by risk-aversion. GOLDBERG (1990) argues against the usefulness of this easily made ad-hoc assumption and calls for more fruitful explanations, such as institutional economic models. The strategic impact of insurance is an attempt to contribute to this line of research.

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<sup>1</sup>LCI and risk-averse plaintiffs are analyzed in RICKMAN/HEYES (1998).

<sup>2</sup>There is a growing literature on insurance for risk-neutral agents, starting with MAYERS/SMITH (1982); see SKOGH (1998) or WILLIAMS/SMITH/YOUNG (1998, 46) for an overview. This literature focusses additional services that make insurance beneficial, such as tax advantages, the professional handling of settlements, or the evaluation of risks.

<sup>3</sup>See e.g. ROTHSCHILD/STIGLITZ (1976).

LCI has two strategic effects in a game with settlement and trial. First of all, LCI can make the plaintiff's threat to sue credible even if the case has a negative expected value (NEV)<sup>4</sup>. The second strategic effect of LCI is to shift the bargaining range and therefore the settlement result. This effect can make LCI attractive for both of the litigants even in a positive expected value (PEV) suit.

The idea to turn a NEV case into a positive expected value case by distributing the litigation costs over time is due to BEBCHUK (1996). However, he analyzes retainer fees rather than legal cost insurance<sup>5</sup>. Retainers differ from LCI in two aspects:

- Under the British rule, a prevailing plaintiff gets reimbursement for retaining fees, but not for the insurance rate he has paid, thus the retainer is not entirely sunk, whereas the insurance fee is sunk.
- Under both the British and the American rule, the retainer and the residual fee add up to the total litigation costs, whereas the sum of insurance fee and deductible do not necessarily add up to the litigation costs.

Legal Cost Insurance also differs from other tools to reduce the cost risk of potential plaintiffs, such as contingent fees (under LCI, the incentive scheme for the lawyer is not modified) or from fee shifting (in Germany, fee shifting is combined with the rather ubiquitous LCI).

Section 2 of this paper presents a simple model to demonstrate the strategic impact of LCI. Even in this model, assuming perfect and complete information, hence a trial will never occur, there are parameter settings under which the risk-neutral parties have an incentive to purchase insurance. Two modifications of the basic model are discussed in section 3: the renegotiation problem and divergent expectations. Section 4 presents the results of the paper.

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<sup>4</sup>Note that NEV suits are not necessarily meritless, see BEBCHUK (1998). A legitimate suit can have a negative expected value even if the probability to prevail in court is high, due to excessively high litigation costs. A concept of legitimate and opportunistic suits is defined in KIRSTEIN, R./SCHMIDTCHEN (1997).

<sup>5</sup>See also BEBCHUK/GUZMAN (1996) and CROSON/MNOOKIN (1996). The latter point out that non-refundable retainers may have a strategic impact similar to the one described here, but admit that the assumption of non-refundability might be problematic.

## 2. Trial, Settlement, and Insurance

### 2.1 Definitions

Consider a civil case - e.g. after an accident - where a plaintiff P sues his opponent, the defendant D, for a certain amount of money. Let this amount at stake be  $J > 0$ . Both parties are assumed to be risk-neutral. Hence, an insurance against the risk of the accident would not be bought by either party, if the premium is positive. Things are different with Legal Cost Insurance (LCI). Before the accident takes place, the parties simultaneously decide whether to buy LCI or not.

After the accident, both parties are uncertain about the outcome of the case. Let me denote the expected judgement of P as  $X$ , whereas the expected judgement of D is denoted as  $Y$ . Each party assigns a positive probability to the events that either P is awarded  $J$ , or zero otherwise. Hence,  $0 < X < J$  and  $0 < Y < J$  hold.

In section 2.3, I assume the expectations of the parties to be equal, thus  $X = Y$ . In such a simple model, the parties will always settle (as long as trial costs are positive). A more realistic view of settlement is provided in section 3.2, where the expectations are assumed to be divergent. Since the amount at stake is known to both parties, this divergence is caused by different probability estimations to prevail. The subjective probability of P to prevail is  $X/J$ , whereas D estimates to prevail with probability  $(J - Y)/J$ .

Under perfect and complete information, the parties should have consistent estimations: their subjective probabilities to prevail add up exactly to 1. If, however, the sum of these two subjective probabilities is greater than one, then the parties are bilaterally optimistic<sup>6</sup>. In this case,  $X$  is close to  $J$  and  $Y$  is close to 0. This may lead to a situation where settlement fails.

Before the trial takes place, the parties bargain over a settlement; for simplicity, I assume bargaining costs to be zero. If the parties reach a settlement, the agreed upon amount will be payed and the interaction ends. Let me denote this payment with  $S$ , labelled as  $S_i$  to distinguish different parameter settings. For the sake of simplicity, I assume the Nash bargaining solution with equal bargaining power<sup>7</sup>.

If the parties fail to settle, due to bilateral optimism, the plaintiff P decides whether to proceed to trial or not. In case of trial, an uninsured party has to bear trial costs of  $c$ .<sup>8</sup> A Legal Cost Insurance contract may require the insured party to bear a deductible in case of trial. This deductible, denoted as  $d$ , may be different for the two roles in court, but again for simplicity, I assume that they are equal. Of course, the deductible is smaller than the trial costs:  $d < c$ . The insurance fee is denoted as  $e$  for the plaintiff and  $f$  for

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<sup>6</sup>This concept is adapted from POLINSKY (1989). Bilateral pessimism means a sum smaller than one.

<sup>7</sup>The main results of the paper could also be derived under more general assumptions concerning the bargaining process and costs.

<sup>8</sup>The American cost allocation rule is applied here; under the British rule, the main results of this paper would also hold. The assumption of equal trial costs only makes the results more handy and could be relaxed without any problem.

the defendant. Finally, let me define four expressions:

- Positive Expected Value (PEV): A case has a positive expected (net) value for P, if  $X > c$  holds.
- Negative Expected Value (NEV): A case has a negative expected (net) value for P, if  $X < c$  holds.
- The Credibility Condition (CC):  $d < X$ .
- $h$  is the half of the amount covered by the LCI:  $h = \frac{c-d}{2}$

## 2.2 The trial decision

Let me start the backward analysis of the interaction between P and D with the decision of the former whether to proceed to trial or not, if settlement negotiations have failed.

If the plaintiff P is uninsured, he expects a payoff of  $X - c$  from going to court. If he does not proceed to trial, his payoff will be zero. Hence he prefers the trial in PEV cases ( $X > c$ ). In NEV cases, however, his threat to sue is non-credible.

If, however, P is insured, he expects  $X - d - e$  from trial, whereas his payoff is  $-e$  if he does not proceed to court. Therefore he prefers the trial if the Credibility Condition (CC) is met:  $X > d$ . Obviously, the insurance fee does not influence his decision. The fee is sunk before the players interact.

At this point, D has no direct influence on the decision of P. However, P's decision has an impact on his payoffs: If P stays out of court, an uninsured defendant D receives a zero payoff. Being insured leads to a payoff of  $-f$ . If P proceeds to trial, D expects  $-Y - c$  if not insured, and  $-Y - d - f$ . These expected payoffs are the parties' threat points in the settlement negotiations to be analyzed in the subsequent section.

## 2.3 Settlement under consistent expectations

First, I will analyze the settlement negotiations under the simplifying assumption that the parties have consistent expectations, namely  $X = Y$ . Four cases are possible:

- no one is insured,
- only the plaintiff P is insured,
- only the defendant D is insured,
- both are insured.

I first examine positive expected value cases (section 2.3.1) and then turn to negative expected value cases (section 2.3.3).

### 2.3.1 Postive expected value cases

If, in a PEV case, settlement fails, then P proceeds to trial. Without insurance, this would bring him an expected payoff of  $X - c$ . Hence, P would only accept a settlement payment  $S$  that is at least as high as the expected payoff from trial:  $S \geq X - c$ . Without LCI, D expects  $-X - c$  if settlement fails. Therefore, he would not accept to make a settlement payment  $S$  if  $-S < -X - c$ . On the other hand, a settlement payment that holds  $S \leq X + c$  would be acceptable for D. From these considerations, the bargaining range for a PEV case with uninsured parties can be derived as:

$$[X - c, X + c] \quad (1)$$

In this first case, the settlement result would be  $X$ . Let me now turn to the case where only D is insured: His payoff from trial then is  $-X - d - f$ . Hence, D would not accept any settlement result that does not hold  $-S - f > -X - d - f$  or, equivalently,  $S < X + d$ . The bargaining range now is

$$[X - c, X + d] \quad (2)$$

and the Nash bargaining result is

$$X - \frac{c - d}{2} = X - h$$

If only P is insured, then he expects  $X - d - e$  from a trial. Hence he would only accept a settlement result if it holds  $S - e > X - d - e$ . Thus, the bargaining range is

$$[X - d, X + c] \quad (3)$$

and the bargaining solution is  $X + h$ . Finally, if both parties are insured, the bargaining range is

$$[X - d, X + d] \quad (4)$$

and the solution is  $X$ . Under the assumptions made here, bilateral insurance leads to the same result as no insurance at all. Obviously, it pays to be the only one who is insured, since this causes a unilateral inward shift of the insured party's threat point, which has a beneficial impact on settlement result.

### 2.3.2 The decision to buy insurance in PEV cases

The derived bargaining solutions minus the insurance premiums (if a party has purchased LCI) provide the subgame value of the settlement and litigation stage of the interaction.

These subgame values determine the decisions of the parties whether to insure or not. Table 1 presents the simultaneous insurance decision as a game in strategic form. The strategies are to insure (i) or not (n), the entries represent the expected payoffs of P and D.

Table 1: Insurance stage, PEV case

D	(n)	(i)
P		
(n)	$-X$ $X$	$-X + h - f$ $X - h$
(i)	$-X - h$ $X + h - e$	$-X - f$ $X - e$

(i) is the dominant strategy for P if  $e < h$ , and (n) is dominant if  $e > h$ . A similar result holds for D: if  $f < h$ , then (i) is dominant; if  $f > h$ , then (n) is dominant. Hence, the unique Nash equilibrium of this game depends on the exogenously given parameters  $c, d, e$  and  $f$ . Figure 1 shows the Nash equilibrium for each of the possible parameter combinations; recall that  $h$  is defined as  $(c - d)/2$ .

If the insurance fees are too low, then the pareto suboptimal Nash equilibrium (i),(i) is implemented: both parties would be better off if there were no insurance available. However, this arms race could be prevented by regulation; if the insurance fees for both parties were set above  $h$ , they would not insure only to reach a more favorable settlement result in PEV cases.

### 2.3.3 Settlement and insurance in NEV cases

Things are a bit different if the case has negative expected value. Without LCI, P would not proceed to trial if settlement fails. The bargaining range then is

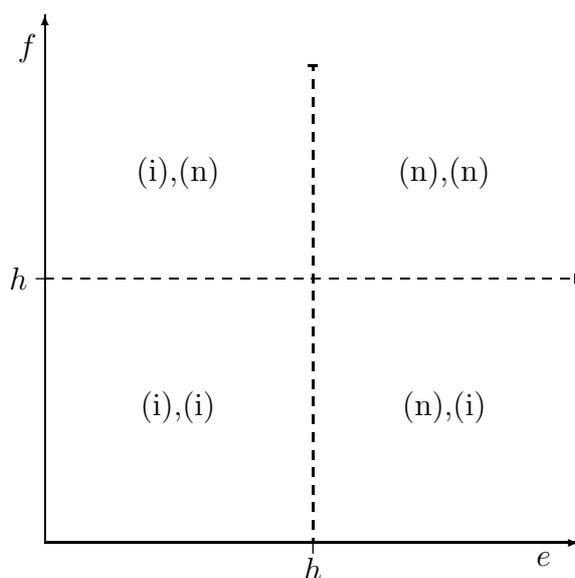
$$[0, 0] \tag{5}$$

Note that this result is independent of whether D has bought insurance or not<sup>9</sup>: P has a credible threat to sue, hence can force his opponent to accept a positive settlement result if, and only if, he is insured. Then the bargaining ranges and settlement results are the

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<sup>9</sup>Compared to the PEV case, bargaining range (5) replaces the bargaining ranges (1) and (2).

Figure 1: Nash equilibria in PEV cases



same as in the PEV case: If P is the only one who is insured, then bargaining range (3) applies and the bargaining result will be  $X + h$ ; if both parties are insured, then it is bargaining range (4) and the settlement result is  $X$ . The simultaneous insurance game for NEV cases is shown in table 2.

Table 2: Insurance stage, NEV case

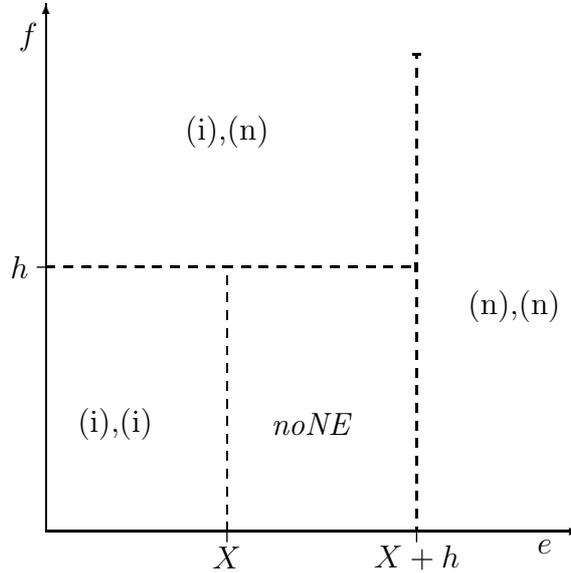
D	(n)	(i)
P		
(n)	0	$-f$
(i)	$-X - h$	$-X - f$
	$X + h - e$	$X - e$

Obviously, the best answer of D on (n) is not to buy insurance, too. The best reply on (i) depends on the parameters  $c, d$  and  $f$ ; if  $f < h$  holds, D will also insure. If  $f > h$  holds, then D will not buy insurance.

If D has chosen (n), then the best reply of P is (i) if  $e < X + h$  and (n) otherwise. If,

on the other hand, D is insured, then P would also insure if  $e < X$  and not otherwise. Figure 2 shows the possible Nash equilibria of the insurance stage in NEV cases.

Figure 2: Nash equilibria in NEV cases



If  $e$  is greater than  $X$ , but smaller than  $X + h$ , and simultaneously  $f < h$  holds, then the game has no Nash equilibrium in pure strategies (denoted by the entry *noNE* in figure 2): If P were insured, the best reply of D would be to insure, but the best reply of P on (i) is not to insure; if P were not insured, then the best reply of D would be not to insure, too; yet P's best reply on (n) is to buy insurance.

Let me derive a normative result: If the legal system aims to protect the claim of P (which is assumed to be legitimate), and wants to prevent that D buys LCI only for redistributive purposes, then the insurance parameters  $d, e$  and  $f$  should be set such that  $e < X + h$  and  $f > h$  hold (recall that  $h = (c - d)/2$ ). This would lead to the Nash equilibrium (i),(n) in the insurance stage, and implement a positive settlement result, namely  $X + h$ . This is the maximum reward P can expect for his legitimate claim, given an imperfect and costly court system. Under the additional condition  $e, f > h$ , this would simultaneously prevent the parties from purchasing insurance if faced with PEV cases. Hence, the optimal regulation for the LCI parameters would be  $h < e < X + h$  and  $f > h$ . Without LCI, P would only receive  $X$  in PEV cases and nothing in NEV cases.

## 2.4 Risk-neutrality and the demand for LCI

The analysis above did show that parameter settings exist under which the parties in a law suit would benefit from being insured. The assumption of perfect and complete

information lead to the (admittedly unrealistic) prediction that a trial never occurs. Either the parameter settings are such that the parties settle, or the plaintiff chooses not to proceed to court.

If the probability of a trial is zero, the actuarial fair rate for an insurance would be zero. However, the parameter settings that make insurance beneficial for one party or both do not exclude positive insurance premiums. Even though the parties are assumed to be risk-neutral, the parties would accept an insurance that charges a premium above the actuarial fair rate. It is the strategic effect and not the aspect of risk-allocation that creates a demand for LCI in this model.

### 3. Modifications of the basic model

#### 3.1 NEV cases and the renegotiation problem

In the the former sections, the insurer only played a passive role. The insurance parameters  $d$ ,  $e$  and  $f$  were exogenously set and subject to a comparative static equilibrium analysis. Furthermore, it was assumed that an insurance contract would be carried out exactly as agreed upon. The latter assumption is closer examined in this section.

Consider an NEV case where only P has bought insurance. If settlement fails, then the insurer and the plaintiff would have an incentive to renegotiate their contract. This would have a serious impact on the threat points of P and D in the settlement negotiations, if anticipated by the defendant.

If the insurer made an offer to buy back the contract, then P would have to decide whether to accept or not. Let me denote an offer with  $T$ . If P accepts, he receives  $T - e$ , if he rejects, he could proceed to trial, which brings him an expected payoff of  $X - d - e$ . Hence, P would only accept offers that hold  $T > X - d$ .

If P rejects the offer, his insurer faces an expected loss of  $e + d - c$  (the insurer has to bear  $c$ , but receives the deductible  $d$ ). If P would not go to court, the insurer's payoff would be  $e$ . Thus, the insurer would agree to a renegotiation payment  $T$  that holds  $e - T > e + d - c$  or, equivalently,  $T < c - d$ . Therefore, the bargaining range between P and the insurer is

$$[X - d, c - d] \tag{6}$$

In NEV cases ( $X < c$ ), this range is non-empty. The Nash bargaining solution would be  $(X + c)/2$ . Both the insurer and the insured plaintiff would benefit from not carrying out the contract. However, if renegotiation could be expected to take place, D would not have to expect his insured opponent to proceed to trial. The threat point of D then is zero, even though P is insured. Of course, expecting no trial at all, D would also have no incentive to buy insurance.

If the opportunity to renegotiate were excluded, the parties would settle for  $X + h$  and the payoffs of P, D, and the insurer were  $x + h - e$ ,  $-X - h$  and  $e$ . P and his insurer use the shadow of the court to extract an settlement payment out of D.

Facing the opportunity to renegotiate leads to payoffs  $(X + c)/2 - e$ ,  $0$  and  $e - (X + c)/2$  for P, D, and the insurer. The ex-post rational decision to renegotiate leads to a zero-sum game between P and the insurer ex ante.

Obviously, it would be in the common interest of P and the insurer to exclude the possibility of renegotiation. This would make D expect a trial, if settlement fails, and therefore induce him to accept a positive settlement result. This common interest leads to some plausible explanations why, in reality, renegotiations between Legal Cost Insurers and their customers are simply unheard of:

1. To protect their rent  $e$  from vanishing, insurers have a demand for regulation that prevents renegotiation. Alternatively, insurers would be well advised to install institutional arrangements that prevent renegotiations, even when these arrangements are costly. Such an arrangement could be seen in insurance agents who do not benefit from renegotiations, but from making contracts. If the decision whether to perform or to renegotiate is left to the agents (as it is in practice), the insurer's rent is protected.
2. Insurer and customers play a repeated game, which includes a sequence of one-shot games between single plaintiffs and defendants (as in the model presented here). According to the Folk theorem, there is a Nash equilibrium in the supergame between insurer and insured that excludes renegotiations. The shadow of the future keeps them from renegotiating in each single round.

## 3.2 Settlement under divergent expectations

In the sections above, another crucial assumption has been made in order to focus on the role of LCI as a strategic insurance rather than a tool to re-allocate risk: Due to perfect and complete informations, the parties would never actually proceed to trial. Either a settlement takes place, or - in NEV cases with an uninsured plaintiff - P would not proceed to court. Hence, the insurer's business is not risky at all. To buy Legal Cost Insurance only has an impact on the settlement, but does not cover an actual risk, since Legal Costs never have to be borne.

In this section, I will allow for the parties expectations to diverge. This leaves room for the trial puzzle: Even if the objective bargaining range is non-empty, parties are observed to proceed to court instead of reaching a settlement. Divergent expectations are caused

from different estimations of the probability that the plaintiff prevails in court<sup>10</sup>

As defined above, let the amount at stake be  $J$ . The expected award for the plaintiff is  $X$ , for the defendant  $Y$ . Trial costs are  $c$ . But now, the subjective probabilities of the parties that the plaintiff prevails may differ from each other (and from the objective one). The subjective probabilities that P prevails are  $X/J$  for P and  $Y/J$  for D. If both parties are uninsured, then P would proceed to trial if the case has PEV:  $X > c$ . If this condition holds, the bargaining range is

$$[X - c, Y + c]$$

This range is nonempty, and settlement takes place, if  $X - c \leq Y + c$  or  $X - Y \leq 2c$ . Hence, settlement fails and a trial takes place if  $X > Y + 2c$ , which implies PEV<sup>11</sup>. If, on the other hand, the case has NEV, then P will not proceed to trial after the settlement fails, and the bargaining range hence is  $[0, 0]$  regardless of the subjective estimations of D.

Note the difference to the consistent expectations model above: As above, P will only proceed to court if  $X > c$ . Under consistent expectations, P will never actually have to try the case, because a settlement is induced. The probability of a trial is zero. Here, if  $X$  is greater than  $c$  and also exceeds  $2c + Y$ , P would reject any settlement offer that D would find acceptable and proceed to trial. Now, the probability of a trial is positive<sup>12</sup>.

For the analysis of LCI, this model has two impacts: First of all, if the insurer accepts a customer, he now has to face the risk of having to bear litigation costs. Secondly, the trial condition  $X > Y + 2c$  is influenced by LCI. If one party is insured, this condition is  $X > Y + c + d$ . The right hand side is now smaller than in the case without insurance. If both parties are insured, the right hand side is  $Y + 2d$ , which is even smaller. The more insurance is bought, the more likely is the trial condition fulfilled.

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<sup>10</sup>A simple idea to model this was introduced by Priest/Klein (1984): Let  $y$  be the true value of a case, and  $e_i$  be the error party  $i \in \{P; D\}$  estimates this true value with. Assume that  $e_i$  is a continuous random variable with zero mean. Let furthermore be  $s$  the decision standard of the judge. Then the objective probability that P prevails is  $\Pr\{y > s\}$ , the subjective probability of P is  $\Pr\{y + e_P > s\}$ , and for D it is  $\Pr\{y + e_D > s\}$ . Since  $e_i$  are random variables, these subjective probabilities are random variables, too. An alternative explanation of the trial puzzle is the asymmetric information approach that was introduced by BEBCHUK (1984) or NALEBUFF (1988). For an overview and an empirical comparison of these models see WALDFOGEL (1999). His data supports the divergent expectations approach.

<sup>11</sup>In terms of the subjective probabilities, the trial condition is equivalent to:

$$\frac{X}{J} - \frac{Y}{J} > \frac{2c}{J}$$

If the difference between the subjective probability of P and the one of D exceeds the ratio of total trial costs and the fixed amount at stake, then settlement fails and a trial occurs. This is the trial condition of PRIEST/KLEIN (1984) under the assumption of zero bargaining costs; see also WALDFOGEL (1999, 454).

<sup>12</sup>The probability of a trial is  $\Pr\{X - c > Y + c\}$ , which is equivalent to  $\frac{X}{J} - \frac{Y}{J} > \frac{2c}{J}$ . The right hand side of the trial condition consists of two random variables, as explained above.

## 4. Conclusions

Let me list the results that were derived in the sections above:

- In positive expected value cases, it can be individually rational to purchase Legal Cost Insurance in order to improve the settlement result.
- However, a pareto suboptimal Nash equilibrium can occur if the insurance premiums are too low; this arms race can be prevented by high enough insurance premiums.
- In negative expected value cases, Legal Cost Insurance can provide a credible threat to sue and therefore induce a positive settlement result.
- The renegotiation problem between the insurer and his customer does not occur if there is regulation (or an institutional arrangement) that prevents renegotiation, or if the players take into account the shadow of the future.
- Under consistent expectations, LCI leads to more settlement, but not to more trials. If, however, the parties' expectations diverge, then LCI may induce more trials.

Thus, LCI is a useful institution which is required to ensure legal protection for property rights of low value, but does not necessarily lead to more litigation<sup>13</sup>. Note that these results only hold if, as assumed above, the possibility of illegitimate or opportunistic suits is excluded. Opportunistic suits taken into account, the impact of LCI may be more harmful. However, even in this case one of the main results of this paper remains valid: Risk-neutral parties may have a demand for strategic insurance at a premium that exceeds the actuarial fair rate. LCI clearly is an example for such a strategic insurance.

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<sup>13</sup>See also KIRSTEIN (1999).

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