

Legal Expenses Insurance and the Free Rider Problem

Abstract

Previous research shows that in order for legal expenses insurance (LEI) to develop, government and/or employers and trade unions must promote LEI to groups. While some reasons have been offered in the literature for the difficulty of the LEI market to develop, we focus on a previously unexplored explanation: the free rider problem that is associated with the positive externalities that LEI may create. When injurers cannot distinguish between potential victims with and without LEI, taking LEI creates positive externalities. The potential victim who takes LEI bears the full cost of the insurance policy, but all potential victims enjoy the benefit of the increase in care adopted by the potential injurer. The problem is worst for cases with negative expected value, but can also exist when cases have positive expected value. Furthermore, we examine some explanations why the insurance industry is unlikely to solve this potential market failure and draw some parallels between the incentives to take LEI and the incentives of potential victims to take unobservable measures to prevent crime (e.g. Lojack).

Keywords: legal expenses insurance, positive externalities, free rider problem, observable precautions, unobservable precautions.

1 Introduction

In most industrialized nations, only a relatively small fraction of households take legal expenses insurance (LEI). For example, in the US, insurance to cover the cost of bringing litigation is rare.^{1 2} In Europe, LEI markets are growing³ but LEI still represents only 1 % of total premiums.⁴ LEI has not flourished in the UK, Australia or New Zealand.⁵ For the UK, this was confirmed by a study executed in July 2007 for the Ministry of Justice on the market for before the event (“BTE”)⁶ legal expenses insurance.⁷ Also in France, LEI is not yet widespread.⁸ Not surprisingly, although many industrialized nations have well-developed insurance markets where protection against the risk of legal expense can be purchased⁹, some researchers have become rather sceptical about the success of legal insurance schemes. Regan (2001) for example concludes that LEI is not a panacea. The experience in different countries suggests that in order for LEI to develop, government and/or employers and trade unions must promote LEI to groups.

One possible reason why LEI is relatively rare could be that other instruments (like public legal aid and contingency fees) make LEI less attractive. However, this does not explain why LEI is still so infrequent in countries in which only a modest fraction of the population is

¹ See for example Kilian (2003, p. 36). Note that the cost of *defending* policyholders against liability suits is included in personal, professional and commercial liability insurance coverage.

² The policies in the USA are generally prepaid plans for predictable and specified events that are low cost, routine and high frequency (e.g. simple divorce, wills and estates). The prepaid plans rarely offer assistance for complex legal problems (although some offer discounts on private lawyer services for more complex matters). See Regan (2001).

³ There are only a few countries where the presence of LEI has decreased between 2000 and 2008 (Hungary, Luxemburg, Portugal and Turkey).

⁴ Statistics number 37 of the Comité Européen des Assurances (CEA), CEA (2009).

⁵ See Regan (2003, p. 50-51).

⁶ BTE stands in contrast with ATE (After the Event) insurance.

⁷ Some recommendations were formulated in this report to promote the use of LEI. See FWD (2007).

⁸ For details see Cerveau (2006). In France, LEI is referred to as « Assurance de Protection Juridique ».

⁹ See Prais (1995).

eligible for legal aid and contingency fees are prohibited.¹⁰ In theory, the insurance market for legal expenses may experience difficulties to develop for several reasons¹¹: people may underestimate the probability that they will be involved in a legal case¹², they may underestimate the amount of expenses involved in a legal case¹³, they may mistakenly think that they are covered by legal aid¹⁴ and the existence of asymmetric information may lead to adverse selection or moral hazard¹⁵. In this article we offer another explanation for why the market for LEI may fail: the free rider problem that is associated with the positive externalities that LEI can create. Insurance usually does not create positive externalities. If a house burns down because of lightning, only the owner will benefit from the fire insurance. The case of insurance for legal expenses however is (often) different. When a potential victim takes LEI, he may be able to bring a case to court which he would otherwise not have pursued.¹⁶ The potential injurer anticipates this and takes more care. This in turn lowers the probability that other people will get hurt, whenever the injurer cannot differentiate between parties with and without an insurance policy (as is generally the case for torts). If the injurer

¹⁰ In Belgium for example, only 15 percent of the population is covered by public legal aid and contingency fees are prohibited. The number of persons having LEI in this country was traditionally extremely low. In 2007 an agreement has been made between the Minister of Justice and the insurance companies to set up a general legal expenses insurance. For a yearly amount of 144 € a person is entitled to legal aid by a lawyer. Only 67,000 persons have subscribed the insurance so far. There are roughly speaking 10 million Belgians. Note that the scope of the legal matters covered by this insurance is rather limited. See International Legal Aid Group Conference (2009). A royal decree of 15 January 2007 has even provided for a tax benefit for those who subscribe to LEI but traditionally LEI coverage in Belgium remains low.

¹¹ One may state that LEI markets are not plagued by any type of market failure at all, because LEI is very popular in at least a few countries. However, the observed high frequencies in these countries can be quite deceptive. For example, 97 percent of Swedes are reported to be covered by LEI (see Van Zeelandt and Barendrecht, 2003). Strictly speaking however, Swedes do not have LEI policies. They have insurance coverage for possible future legal expenses, which is automatically included in their household insurance policies (see Reagan, 2003, p. 50). The Swedish model is hence what is referred to as compulsory add-on insurance: LEI is automatically added-on to other, voluntary purchased insurance policies with a high market penetration (like housing insurance; see Regan, 2001 and Regan, 2003). That explains of course the high coverage. Furthermore, it needs to be said that these LEI policies restrict assistance to a relatively narrow range of court cases (see Kilian and Reagan, 2004, p. 250).

¹² See Regan (2001, p. 295).

¹³ Gray and Rickman (1995, p. 310).

¹⁴ Gray and Rickman (1995, p. 315).

¹⁵ An individual with LEI may be more likely to start a legal action than an uninsured person, may be less inclined to monitor the billing behavior of the lawyer and may pursue the claim with greater intensity than an individual who finances the claim himself.

¹⁶ Taking LEI may also be a strategy to enhance the bargaining position of the insured. See Kirstein (2000).

can differentiate *ex ante* between parties, insurance for legal expenses would not create positive externalities, at least if the injurer is able to adjust his level of care for each party individually. In that case, a person does not benefit when another person takes insurance.

The article is organized as follows. Section 2 shortly describes related literature. In section 3, we consider the case of N identical individuals who need to make a choice between taking damage insurance without LEI and damage insurance with LEI. We also compare the private and the social incentives to take LEI. Section 4 extends the analysis by looking at the incentives of insurers. An important question is whether the insurance market itself is capable and willing to solve the market failure. We will see that there are some reasons to suspect that this might not be the case. Section 5 concludes.

2 Related literature

An analogy can be made between legal expenses insurance and the “prosecution societies” in 18th century England.¹⁷ The English legal system back then had criminal law, but there was no police force nor were there public prosecutors. In theory, any Englishmen could prosecute any crime. In practice, the private prosecutor was typically the victim. But why would a victim ever prosecute? If a tort victim sues and wins, he collects damages. But a private plaintiff in a criminal suit often collects nothing (the defendant is hanged, transported etc.).¹⁸ This is why societies for the prosecution of felons were formed. These societies typically operated in a single town.¹⁹ Each member contributed a small sum once a year. The money was available to

¹⁷ See Friedman (1984).

¹⁸ One reason to prosecute is the possibility of settling out of court (the defendant had a lot to lose from a conviction). Agreements between the victim and the defendant were however illegal in felony prosecutions. Another reason to prosecute was that people who expected to be victims of multiple offenses could establish a reputation for prosecuting and thus buy deterrence. See Friedman (1984).

¹⁹ Thousands of these societies were formed.

be spent on prosecuting anyone who committed a felony against any member. The question rises why this solution was not plagued with the free rider problem. The answer is simple: the list of members was published in the local newspaper, to be read by the local felons. This internalized the positive externalities. Obviously, internalizing the positive externalities of LEI is much more difficult.

More generally, this article extends a key insight from the literature on the incentives of victims to prevent crime to the context of civil procedure.²⁰ This literature has stressed the significance of the distinction between observable and unobservable private precautions to prevent criminal activities. The two types of precaution may create different problems. Observable precautions, like putting iron bars on the windows of a house, may generate diversion effects (e.g. a thief that can see that a person has put iron bars across his windows, may decide to approach another house). If precautions are (partly) unobservable, some potential victims may have an incentive to free ride on the precautionary efforts of others.²¹ A well-known example is installing Lojack in a car.²² Lojack may provide positive externalities since criminals cannot determine a priori who is protected. Installing Lojack only trivially reduces the likelihood that one's car will be stolen. Any decrease in the aggregate crime rates due to Lojack is an externality from the perspective of the individual Lojack purchaser. Ayres

²⁰ See for example C.T. Clotfelter, Private Security and the Public Safety, *Journal of Urban Economics*, Vol. 5, 388-402 (1978); Steven Shavell, Individual Precautions to Prevent Theft: Private versus Socially Optimal Behavior, *International Review of Law and Economics* 11, 123-132 (1991); David De Meza and J.R. Gould, The Social Efficiency of Private Decisions to Enforce Property Rights, *Journal of Political Economy* 100, 561-580 (1992); Omri Ben-Shahar and Alon Harel, Blaming the Victim: Optimal Incentives for Private Precautions against Crime, *Journal of Law, Economics and Organization* 11, 434-455 (1995); Keith N. Hylton, Optimal Law Enforcement and Victim Precaution, *RAND Journal of Economics*, 197-206 (1996); Ian Ayres & Steven D. Levitt, Measuring Positive Externalities From Unobservable Victim Precaution: An Empirical Analysis of Lojack, *The Quarterly Journal of Economics*, vol. 113(1), pages 43-77 (1998).

²¹ See Keith N. Hylton, 1996, Optimal Law Enforcement and Victim Precaution, *RAND Journal of Economics*, p. 197. See also Steven Shavell, Individual Precautions to Prevent Theft: Private versus Socially Optimal Behavior, *International Review of Law and Economics* 11, 123-132 (1991), where it is discussed as a public good problem.

²² With Lojack, a small radio transmitter is hidden in one of many possible locations within a car. When a car is reported stolen, the police activates the transmitter and specially equipped police cars and helicopters track the precise location and movement of the vehicle.

and Levitt (1998) estimate that those who install Lojack in their cars obtain less than ten percent of the total social benefits of Lojack, which causes Lojack to be undersupplied by the free market.²³ Different authors have pointed out that a free-riding problem could easily appear, since those without Lojack would hope thieves will stay away from their own cars in fear that it might have the device. If enough free-riders stop buying Lojack, then the social benefit would disappear.²⁴ The same is true for legal expenses insurance.

3 Model

When a risk-averse individual faces the possibility of an adverse event that will cause a loss in his wealth, he will be willing to transfer the risk to an insurer and thus obtain indemnity against the payment of insurance premia. When the law determines that others can be held liable for the damage caused but the victim would not be able to sue²⁵, a potential victim has a choice between exclusively taking damage insurance and taking damage insurance with LEI added. With LEI added, in case of an accident, the insurer will first settle or go to trial with the injurer. When the settlement amount diverges from the loss or when the lawsuit is lost, the damage insurance will kick in. We will first formally examine the choice between damage insurance with and without LEI (3.1), and then briefly and informally look into the social versus private incentive to take LEI (3.2).

We will use the following assumptions and notations. We consider N identical agents. They maximize expected utility with respect to an increasing, concave utility function $U(\bullet)$. Each potential policyholder has initial wealth w_0 and is exposed to a loss of size H with probability

²³ Ian Ayres & Steven D. Levitt, Measuring Positive Externalities From Unobservable Victim Precaution: An Empirical Analysis of Lojack, *The Quarterly Journal of Economics*, vol. 113(1), pages 43-77 (1998).

²⁴ See ***. See also John R. Lott, *Freedomnomics. Why the Free Market Works and Other Half-Baked Theories Don't*, Regnery Publishing, 2007, p. 86, who is quite sceptical about the real effects of Lojack on theft. ***

²⁵ Either because he lacks the necessary funds or because the case has negative expected value.

$p(x)$, with x being the level of precaution taken by the injurer.²⁶ There is a market for LEI and a market for damage insurance. Both types of insurance can be purchased for an actuarially fair premium (we use a for the premium in case of damage insurance with LEI and b in case of damage insurance without LEI). A victim could be interested in LEI for two reasons: (i) the case has positive expected value ($q.H > C_p$) but the victim has no funds to bring the case to court or (ii) the case has negative expected value ($q.H < C_p$).^{27 28} Cases are settled with a (exogenous) probability γ .²⁹ Settlement is costless for both parties. If the parties settle, we assume they do so for an amount $q.H$. Liability is strict and each party pays his own costs (the American rule applies). The injurer is not judgment proof. For the sake of simplicity, we assume he is not covered by any type of insurance.³⁰ Finally, when the injurer cannot distinguish between victims with and without LEI, we assume that he does know the number of victims with LEI. In case of damage insurance, the insurance company does not step into the victim's shoes after it has paid the victim (we drop this assumption of no subrogation in section 4). We use β to denote the fraction of the harm H that the victim has to bear himself in case of an accident ($0 \leq \beta \leq 1$) and θ to denote the fraction of the litigation costs the victim has to bear himself when a case goes to trial.

3.1. Damage insurance with or without LEI?

²⁶ We only consider unilateral accidents. Note that $p(x)$ indicates the probability of harm *per potential victim* when the level of precaution equals x .

²⁷ We could easily adapt the model to show a free rider problem for the case in which individuals take LEI to strengthen their bargaining position. On taking LEI for strategic reasons, see ***

²⁸ C_p (C_d) stands for the litigation costs of the plaintiff (defendant) and q for the (exogenous) probability that the plaintiff will win the case in court. In case the victim takes LEI, the insurance company bears C_p . For the sake of simplicity, we assume that coverage is full under LEI.

²⁹ **NEV**

³⁰ In reality, defendants frequently take liability insurance and the cost of defending policyholders against liability suits is often included in personal, professional and commercial liability insurance coverage. In terms of our model, the effect of this could be that premia the victim will pay for LEI become larger, since the relative bargaining strength on the defendant's side increases.

For the sake of contrast, we start with the situation in which a potential injurer can distinguish between victims with and victims without LEI.³¹ In this case, the expected utility of a potential victim does not depend on whether other potential victims take LEI or not (more formally, on α).³² When a potential victim takes damage insurance with LEI, his expected utility equals:

$$(1 - p(x^*)).U(w_0 - a) + p(x^*).\gamma.U(w_0 - a - (1-q).\beta.H) + p(x^*).(1 - \gamma).q.U(w_0 - a - \theta.C_p) + p(x^*).(1 - \gamma).(1-q).U(w_0 - a - \theta.C_p - \beta.H)$$

$$\text{with } a = p(x^*).[(1 - \gamma).((1-q).(1-\beta).H + (1-\theta).C_p) + \gamma.((1-\beta).(1-q).H)]$$

The first term represents the utility in case there is no accident. The victim pays the (actuarially fair) premium a .³³ The second term represents the utility in case there is an accident and the parties settle. The victim pays the premium and bears part of the difference between H and the settlement amount himself. The third term represents the utility in case there is an accident, the parties go to court and the plaintiff wins. The victim pays the premium (the defendant bears the loss H) and bears part of the litigation costs. The last term represents the utility in case there is an accident, the parties go to court and the plaintiff loses. He bears part of the loss H , a fraction of the litigation costs and pays the premium.

If the victim takes damage insurance without LEI, his expected utility equals:

³¹ **also works when individuals do not view their decision to take LEI as having a deterrence effect (but they think the level of precaution taken is determined by the overall population of households that take LEI **

³² **no shifting effect**

³³ This premium equals $p(x^*).[(1 - \gamma).((1-q).(1-\beta).H + (1-\theta).C_p) + \gamma.((1-\beta).(1-q).H)]$. When the victim is insured, the injurer takes optimal care and the probability of an accident equals $p(x^*)$. When an accident happens and the parties do not settle (probability $1 - \gamma$), the insurer pays part $(1 - \theta)$ of the litigation costs C_p and pays part $(1-\beta)$ of the loss H when the case is lost (probability $1-q$). When an accident happens and the parties settle (probability γ), the insurer pays part $(1-\beta)$ of the difference between the loss and the settlement amount $q.H$.

$$(1 - p(0)).U(w_0 - b) + p(0).U(w_0 - b - \beta.H)$$

with $b = (1-\beta).H.p(0)$

The first term represents the utility in case there is no accident. The victim pays the (actuarially fair) premium.³⁴ The second term represents the utility in case of an accident. The victim pays the premium and bears part of the loss himself.

A potential victim takes damage insurance with LEI when

$$(1 - p(x^*)).U(w_0 - a) + p(x^*).\gamma.U(w_0 - a - (1-q).\beta.H) + p(x^*).(1-\gamma).q.U(w_0 - a - \theta.Cp) + p(x^*).(1-\gamma).(1-q).U(w_0 - a - \theta.Cp - \beta.H) > (1 - p(0)).U(w_0 - b) + p(0).U(w_0 - b - \beta.H)$$

Clearly, the decisions of other (potential) victims simply do not affect a victim's pay-off. There's no possibility to free ride.

In the more likely case in which LEI is unobservable, the amount of care an injurer takes vis-à-vis any given potential victim depends on the aggregate number of victims that have a legal expenses insurance (thus: $x = x(\alpha)$)³⁵. For any number of potential victims (α) that take LEI³⁶, the expected utility of an undecided potential victim looks as follows:

If he takes damage insurance with LEI, his expected utility equals:³⁷

³⁴ Which equals $(1-\beta).H.p(0)$ because the the probability of an accident equals $p(0)$, since the injurer will not take care because the victim does not have LEI and will not bring suit (note that we assume no subrogation for now). In case of an accident, the insurer pays part $(1-\beta)$ of the loss H to the victim.

³⁵ ***

³⁶ What we mean by this is: a number of α potential victims take LEI, a number of $N - (\alpha+1)$ takes damage insurance, and 1 potential victim is in the process of making his decision. This reasoning process then covers all the possibilities of a game-theoretical matrix.

³⁷ The four terms once again respectively represent the utility in case there is no accident, the utility in case there is an accident and the parties settle, the utility in case there is an accident, the parties go to court and the plaintiff

$$(1 - p(x(\alpha+1))).U(w_0 - a) + p(x(\alpha+1)).\gamma.U(w_0 - a - (1-q).\beta.H) + p(x(\alpha+1)).(1-\gamma).q.U(w_0 - a - \theta.Cp) + p(x(\alpha+1)).(1-\gamma).(1-q).U(w_0 - a - \theta.Cp - \beta.H)$$

$$\text{With } a = p(x(\alpha+1)).[(1-\gamma).((1-q).(1-\beta).H + (1-\theta).Cp) + \gamma.(1-\beta).(1-q).H]$$

If the victim takes damage insurance instead, his expected utility equals:³⁸

$$(1 - p(x(\alpha))).U(w_0 - b) + p(x(\alpha)).U(w_0 - b - \beta.H)$$

$$\text{with } b = p(x(\alpha)).(1-\beta).H$$

A potential victim takes LEI when

$$(1 - p(x(\alpha+1))).U(w_0 - a) + p(x(\alpha+1)).\gamma.U(w_0 - a - (1-q).\beta.H) + p(x(\alpha+1)).(1-\gamma).q.U(w_0 - a - \theta.Cp) + p(x(\alpha+1)).(1-\gamma).(1-q).U(w_0 - a - \theta.Cp - \beta.H) \\ > (1 - p(x(\alpha))).U(w_0 - b) + p(x(\alpha)).U(w_0 - b - \beta.H)$$

We can see the potential for a free rider problem. Even if the victim does not take LEI, he still enjoys the deterrence benefits of the decision to take LEI by other victims. We will now examine for which types of claims the free rider problem is most likely. We start with the simple case $q=1$ and $\beta = \theta = 0$.

3.1.1. The case in which $q=1$ and $\beta = \theta = 0$

wins and the utility in case there is an accident, the parties go to court and the plaintiff loses. The actuarially fair premium equals $p(x(\alpha+1)).[(1-\gamma).((1-q).(1-\beta).H + (1-\theta).Cp) + \gamma.(1-\beta).(1-q).H]$. The insurer only pays out when there is an accident. The probability of an accident equals $p(x(\alpha+1))$ since $\alpha+1$ potential victims take LEI. When an accident happens and the parties do not settle (probability $1-\gamma$), the insurer pays part $(1-\theta)$ of the litigation costs Cp and pays part $(1-\beta)$ of the loss H when the case is lost (probability $1-q$). When an accident happens and the parties settle (probability γ), the insurer pays part $(1-\beta)$ of the difference between the loss and the settlement amount $q.H$.

³⁸ The two terms once again respectively represent the utility in case there is no accident and the utility in case there is an accident. The actuarially fair premium equals $p(x(\alpha)).(1-\beta).H$ since the insurance company pays out part of the loss, $(1-\beta).H$, in case of an accident and the probability of an accident is $p(x(\alpha))$, given that a number of α potential victims take LEI.

Here we consider the case in which the plaintiff always wins his case in court and insurance coverage is full. In a sense, damage insurance and LEI are perfect substitutes under these conditions: under both types of insurance, victims are fully indemnified in case of an accident.³⁹ When $q=1$ and $\beta = \theta = 0$, a victim will take LEI when:

$U(w_0 - a) > U(w_0 - b)$, or equivalently, when $a < b$ thus when

$$p(x(\alpha+1)).(1-\gamma).C_p < p(x(\alpha)).H$$

Since $p(x(\alpha+1)) \approx p(x(\alpha))$ (because the number of potential victims is large), a potential victim takes LEI when $(1-\gamma).C_p < H$ and damage insurance otherwise. When γ is relatively small ($\gamma < 1 - H/C_p$), the potential victim will prefer to free-ride. Unlike in the case in which LEI is observable, a victim who does not take LEI still enjoys the deterrence created by other victims who take LEI. The probability of an accident is $p(x(\alpha))$ and not $p(0)$.

Note that a free rider problem may exist for claims with negative expected value ($H < C_p$ since $q=1$), but not for claims with positive expected value ($H > C_p$).⁴⁰ Intuitively, under both types of insurance, coverage is the same (since $q=1$ and $\beta=\theta=0$) but for PEV claims the premium is lower under damage insurance with LEI. For NEV claims, the premium is only lower under damage insurance with LEI when the settlement frequency is relatively high.⁴¹

3.1.2. The case in which $q < 1$, $\beta > 0$ and $\theta = 0$

³⁹ Note that we only consider harm which can be legally attributed to a third party.

⁴⁰ When $C_p < H$, it follows that $(1-\gamma).C_p < H$.

⁴¹ Note that we assume that insurers **NEV claims** High probabilities of settlement **Faure?*

Once again, we can see that potential victims will take LEI for positive expected value suits ($q.H > C_p$). Note first that coverage is always more extensive under damage insurance with LEI than damage insurance without LEI. Under damage insurance without LEI, the victim always bears $\beta.H$ when there is an accident. Under damage insurance with LEI, the victim bears $\beta.(H - q.H)$ in case of settlement, $\beta.H$ in case of an unsuccessful trial, and 0 in case of a successful trial. The difference in premia between damage insurance with and without LEI equals $p(x(\alpha)).((1 - \gamma).C_p - q.(1 - \beta).H)$. When $q.H > C_p$, this difference is smaller than $p(x(\alpha)).\beta.q.H$. A risk-averse individual will be willing to pay this extra premium to obtain the supplementary coverage.⁴² As in the case of $q=1$ and $\beta = \theta = 0$, the victim will not always take LEI for negative expected value suits ($q.H < C_p$).⁴³ When C_p exceeds a certain threshold, a victim is not prepared to pay the additional premium to obtain a more extensive coverage.

3.1.3. The case in which $q < 1$, $\beta > 0$ and $\theta > 0$

In the most general case of $q < 1$, $\beta > 0$ and $\theta > 0$, victims will not always take LEI, even for positive expected value suits. Take for example the case in which the settlement rate is zero ($\gamma=0$), the plaintiff win rate is relatively low ($q < ((1 - \theta).C_p)/((1 - \beta).H)$) and $\theta.C_p > \beta.H$ (this could be the case when a large fraction of trial costs are psychological in nature). Under these conditions, coverage is greater under damage insurance without LEI, but the premium is larger under damage insurance with LEI. Under damage insurance without LEI, the victim always bears $\beta.H$ when there is an accident. Under damage insurance with LEI, the victim bears $\beta.H + \theta.C_p$ in case of an unsuccessful trial, and $\theta.C_p$ in case of a successful trial. The difference in premia between damage insurance with and without LEI equals $p(x(\alpha)).((1 -$

⁴² Note that when $C_p < q.(1 - \beta).H$, the premium for damage insurance with LEI is even smaller than the premium for damage insurance without LEI.

⁴³ However, he will take LEI more often than in the case of $q=1$ and $\beta = \theta = 0$, especially when he's very risk averse. The reason is that compensation is full when

$\theta).C_p - q.(1 - \beta).H)$, which is positive since $q < ((1 - \theta).C_p)/((1 - \beta).H)$. ***more general, settlement costs***

3.2. LEI, damage insurance and social welfare

When LEI is observable, a potential victim internalizes all the benefits of LEI. The increase in deterrence is fully internalized, since the injurer can distinguish between victims with and without insurance. However, the litigation costs of the injurer (and of the state) are externalized. Consequently, a victim will take too much LEI from a social point of view. When LEI is unobservable, there could be a socially excessive amount of LEI, since victims do not internalize the litigation costs of the defendant (or the state), as well as a suboptimal amount of LEI, since the victim does not fully internalize the deterrence benefits.

4 The incentives of insurance companies

We have previously assumed that insurance companies do not seek reimbursement from the person or entity legally responsible for the accident after the insurer has paid out money on behalf of its insured. In reality however, subrogation rights are common in insurance relationships. They may arise by contract or by law.^{44 45} At first sight, if an increase in (the threat of) litigation would substantially reduce the accident rate, damage insurers could solve the free-rider problem by efficiently using their right of subrogation or by making LEI a standard addition to damage insurance. However, empirical studies show that subrogation is

⁴⁴ In most US jurisdictions, the common law provides a subrogation right to insurers under property, liability and some casualty policies. Most health and medical policies include subrogation clauses expressly. See John F. Dobbyn, *Insurance Law in a Nutshell* 285-90 (3d ed. 1996).

⁴⁵ ** Why is there subrogation, Shavell, 1987, 235-236. **Ulen on subrogation** Sykes ** Rosenberg **

underused. A recent survey finds a subrogation recovery ratio average (gross subrogation dollars recovered divided by paid losses) of 8.41 percent.⁴⁶ Also, we do not see insurance companies selling damage insurance with LEI as a standard (compulsory) addition (unless they are forced to do so by law, like in Sweden)⁴⁷. Different explanations are possible for these findings.

4.1. The insurers' (high) costs and (low) benefits of subrogation

The high costs of using the legal process to arrive at the correct proportion of liability as between insurers have led many scholars to advocate the elimination of subrogation rights in different contexts.⁴⁸ In many countries, different types of agreements were made between insurers to avoid an unnecessarily litigious atmosphere.⁴⁹ Subrogation rights are often exercised via ex ante (bulk recoupment, knock for knock etc.) agreements.^{50 51} While these agreements may economize on administrative costs, they could reduce incentives to take care because individual risk differentiation becomes impossible (see further).⁵² A complementary explanation for the limited use of subrogation could be that current law restricts insurance

⁴⁶ The survey was done by Ward Group, commissioned by Praxis Consulting. Twenty chief financial officers were surveyed about their companies' subrogation activity. See <http://www.property-casualty.com/News/2009/12/Pages/Focus-On-Subrogation-Missing-From-Many-Firms-Survey-Finds.aspx>. See also Richard Carris and Bill Bartlett, Benchmarking Claims Performance, 41 Risk Mgmt.30 (1994), who criticize insurers for not fully asserting their subrogation interests to the optimal extent.

⁴⁷ See ***

⁴⁸ Weiler (1991) in medical malpractice, Epstein (1977, 1982) and Weiler (1989) in the workers compensation field, Danzon (1984) and Harper, James and Gray (1986) in mandatory and social insurance.

⁴⁹ See for example Richard Lewis, Insurers' Agreements not to Enforce Strict Legal Rights: Bargaining with Government and in the Shadow of the Law, Modern Law Review 292, 1985.

⁵⁰ Under bulk recoupment agreements, there is routine payment of an agreed percentage of all reported claims under a certain amount, usually where the individual amounts involved are relatively small. See W Pfennigstorf & D G Gifford, *A Comparative Study of Liability Law and Compensation Schemes in Ten Countries and the USA* (1991) pp 134-6. For the case of the Netherlands, see M. Faure, Regres in een rechtseconomisch perspectief (Subrogation from a Law and Economics Perspective), in W.H. van Boom, T. Hartlief and J. Spier, Regresrechten. Afschaffen, Handhaven of Uitbreiden?, W.E.J. Tjeenk Willink, 1996, Deventer. In knock for knock arrangements, rights of subrogation are waived. In the UK, these agreements are made between individual motor insurers. See Richard Lewis, Insurers' Agreements not to Enforce Strict Legal Rights: Bargaining with Government and in the Shadow of the Law, Modern Law Review 292, 1985.

⁵¹ In the US, insurance companies often make use of an *ex post* lay arbitration service.

⁵² However, the agreements may still create incentives to reduce activity levels. See M. Faure, Regres in een rechtseconomisch perspectief (Subrogation from a Law and Economics Perspective), in W.H. van Boom, T. Hartlief and J. Spier, Regresrechten. Afschaffen, Handhaven of Uitbreiden?, W.E.J. Tjeenk Willink, 1996, Deventer.

subrogation to the amount of benefits the insurer has paid its insured.⁵³ Since first-party insurance generally only covers economic loss⁵⁴, the restrictions preclude an insurer from acquiring control over a substantial portion of personal injury claims (non-pecuniary and punitive damages).^{55 56} **data on costs**

4.2. Free riding and other perverse incentives of insurers

Whether the substantial costs of litigation is an acceptable reason to favor the elimination of subrogation or to applaud incentive-dulling agreements between insurers depends on the deterrence benefits of subrogation. From a theoretical point of view, many articles tend to support a positive attitude towards subrogation in terms of deterrence.⁵⁷ Excluding a right of subrogation would mean that a part of the damage would not be shifted to the injurer, who would then not have optimal incentives to prevent the loss. The same story holds true if the injurer would be covered through liability insurance. In that case, subrogation would be exercised on the liability insurer, who would optimally differentiate risks and would thus incorporate this increased risk (as a result of subrogation) in the policy conditions of the insured injurer.⁵⁸ Note that a deterrence effect will be doubtful when the exercise of subrogation has no or very little effect on (liability insurance) premiums.⁵⁹ Viscusi (1991) notes that it's difficult to justify the abolition of subrogation actions in the absence of any empirical support indicating that the loss in controlling risks will be minor. Some recent

⁵³ See Tom Baker, *Insurance Law and Policy*, 391 (2003).

⁵⁴ See W. Kip Viscusi, *Pain and Suffering: Damages in Search of a Sounder Rationale*, 1 Mich. L.&Pol'y Rev. 141 (1996).

⁵⁵ For example, two thirds of medical malpractice awards in Illinois are non-pecuniary. See Neil Vidmar, *Medical Malpractice and the Tort System in Illinois: A Report to the Illinois State Bar Association* 66 tbl.5.1 (2005).

⁵⁶ In an interesting article, Kenneth Reinker and David Rosenberg have proposed to change the law of insurance subrogation for medical malpractice liability to allow insurers to acquire their insured's potential malpractice claims without limitation. They argue that this will improve both deterrence and insurance results of medical malpractice liability. See ****

⁵⁷ See for example Danzon, 1984; Shavell, 1987, Reinker and Rosenberg, 2007.

⁵⁸ This could, theoretically, mean that the exercise of subrogation against a liability insurer would amount to an increase in premium or the imposition of other policy conditions to increase the prevention of accidents. See M. Faure, ****, in ****, *The Impact of Social Security Law on Tort Law*, ****, p. 257.

⁵⁹ See M. Faure, ****, in ****, *The Impact of Social Security Law on Tort Law*, ****, p. 259.

empirical studies find that modification and abolishment of the collateral source rule reduce deterrence.⁶⁰ Klick and Strattman (2003) find that collateral source reform leads to higher infant mortality rates. Rubin and Sheperd (2007) find that the introduction of various forms of set-off regimes has had a statistically significant effect on the number of non-motor vehicle accidental deaths.

In those instances in which the deterrence effects of subrogation would be substantial, it's not sure that insurance companies would adopt an aggressive subrogation strategy. If an insurance company has a market share of, say, 10 percent, then 90 percent of the deterrence benefits would go to other insurance companies (whose premiums do not reflect the costs of subrogation suits). This could lead to a free rider problem which prevents the insurance industry from taking meaningful action. A similar argument has been made with respect to Lojack. The question why most auto insurance companies give no discount for Lojack has been answered from two perspectives.⁶¹ According to one view, Lojack is not a winner for insurers with a relatively low market share, since most of the benefit will go to their rivals.⁶² According to another view, Lojack is probably not very effective. If Lojack would really work, the free rider problem could be easily solved. If car manufacturers like Porsche would install Lojack on their cars, thieves would stay away from these cars, and these car manufacturers would reap the benefits.^{63 64}

⁶⁰ Under the collateral source rule, the victim of an accident who has received insurance or similar benefits collect full damages from a liable injurer. No reduction is made because of the benefits that have partially or totally eliminated the accident loss. Since the mid-seventies there has been a trend against the collateral source rule. Many states introduced a regime of collateral benefits off-set. In this regime, the amount of insurance or like benefits is deducted from the damage payment the injurer is liable for. See Fernando Gomez and Jose Penalva, Insurance and Tort: Coordination Systems and Imperfect Liability Rules, ***

⁶¹ In some states discounts are mandated.

⁶² See Ian Ayres and Barry Nalebuff, "Stop, Thief!", *Forbes*, January 10, 2005, http://www.forbes.com/forbes/2005/0110/088_print.html. See also ***

⁶³ When the rate of theft of a car model decreases, the car model becomes more attractive to consumers by lowering insurance premiums. See John R. Lott, 2007, *Freedomnomics*, Regnery Publishing, Washington, p. 43-44.

⁶⁴ Even if this argument is correct, it would be hard to find an analogous market solution in the context of LEI for torts.

If LEI (or subrogation) is truly effective and the insurance industry could overcome the free rider problem⁶⁵, the accident rate would decrease. The question remains if insurers have an interest in doing this. ***concentration LEI, damage insurance *** In the insurance literature, there is a striking diversity in point of view with respect to the insurance industry's interest in accident reduction.⁶⁶ According to one view, the insurance industry has a positive interest in accident reduction.⁶⁷ A second view states that the insurance industry is simply not interested in the objective of accident reduction.⁶⁸ A third view holds that the interest of the insurance industry is in fact served if the accident rate is at a high level.^{69 70} This question has received relatively little attention in the law and economics literature. In the context of product liability litigation, Viscusi (1991) notes that "in the long run the insurance industry will profit from a high level of liability since that will increase the degree of coverage it can write."⁷¹ Viscusi (2003) however explains that in markets in which there is substantial price inflexibility due to regulation, the insurance industry could have an incentive to support tort reform which

⁶⁵ In binding agreements, insurance companies could for example consent to automatically add LEI to other types of insurance.

⁶⁶ See generally, Gerald J.S. Wilde, *Target Risk*, Toronto, Canada, PDE Publications, 1994, 234 p.

⁶⁷ As one commentator puts it: ". . . it is obviously of great interest for the insurance companies [...] to reduce the number of traffic accidents and consequently their cost." See Vaaje, T. (1991). Rewarding in insurance: Return of part of premium after a claim-free period. *Proceedings, OECD/ECMT Symposium on enforcement and rewarding: Strategies and effects*. Copenhagen DK, Sep. 19-21, 1990.

⁶⁸ ". . . insurance. . . is essentially neutral and indifferent with regard to the occurrence of the events that society defines as accidents. . . . Hence, one can rightfully ask if the very mention of 'preventive action by insurance' is not stupid, though well-intentioned". See Chich, Y. (1991). L'assurance automobile peut-elle et veut-elle investir dans l'action préventive? *Proceedings, OECD/ECMT Symposium on enforcement and rewarding: Strategies and effects*. Copenhagen, Sep. 19-21, 1990.

⁶⁹ See Gerald J.S. Wilde, *Target Risk*, Toronto, Canada, PDE Publications, 1994. See also Gray, M. (1989). Insurance logic that is blind to safety inventions. *Lloyd's List*, No. 54340, Nov. 2: "All it needs is the insurance industry to require such equipment to be mandatory, suggest these hopeful people--once again falling into the age-old trap of assuming that the purpose of insurance is in some way to increase safety, or alter human nature, or dramatically to affect statistics. It is an argument which apparently has right and justice on its side, until the truth dawns that insurers are not philanthropists or safety agencies, but merely takers of commercial risks--nothing more, nothing less. Consider the conflict of sentiment which would flash through an underwriter's mind if a wild-eyed inventor burst into his office, waving plans for some equipment that would make ships virtually unsinkable".

⁷⁰ Studies by Adams (1985) and Finsinger (1988) show that insurers have an interest in a high accident rate under some types of premium regulation (they have insufficient incentives to control moral hazard). See M. Adams, *Ökonomische Analyse der Gefährdungs- und Verschuldenshaftung*, Heidelberg: R. v.Decker's Verlag 1985; J. Finsinger, *Verbraucherschutz auf Versicherungsmärkten. Wettbewerbsbeschränkungen, Staatliche Eingriffe und Ihre Folgen*, München: V. Florentz 1988.

⁷¹ W. Kip Viscusi, *The Dimensions of the Product Liability Crisis*, 20 J. Legal Studies 147 (1991), at 148.

reduces the potential market for insurance.⁷² Note that in the context of LEI, the additional premium income from LEI would partially offset the losses in premium income for other insurance policies.⁷³

5 Conclusion

Despite the increasing popularity of legal expenses insurance, still a relatively small percentage of households are covered by this type of insurance in many jurisdictions. While several explanations are theoretically possible for a relatively thin LEI market, we have focused attention on a yet unexplored explanation: the free rider problem. Whenever injurers cannot make a distinction between insured and uninsured victims ex ante, taking legal expenses insurance provides a positive externality for all potential victims. Injurers take more care and this extra care is non-excludable. It's uncertain whether the insurance industry has the right incentives to fix this market failure. Insurance companies themselves could have an incentive to free ride and in the long run the insurance industry profits from high levels of liability.

⁷² W. Kip Viscusi, Tort Reform and Insurance Markets, ***

⁷³ How much of the losses would be offset may depend on many factors like insurance regulation (e.g. premium regulation) and the degree of competition between insurers.