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## “BAD FAITH” REFUSAL TO SETTLE BY LIABILITY INSURERS: SOME IMPLICATIONS OF THE JUDGMENT-PROOF PROBLEM

ALAN O. SYKES\*

**M**OST liability insurance policies contain dollar limits on the insurer's obligation to pay for covered claims. These policy limits create conflicts of interest between the insured and the insurer in the conduct of litigation.<sup>1</sup> One type of conflict arises when a settlement offer is made by the plaintiff and the outcome of litigation is uncertain—the insured may wish to accept the offer because all or most of the burden falls on the insurer, but the insurer may want to litigate because the cost of adverse judgments in excess of the policy limits falls on the insured.

Depending on who exercises control over the decision to settle, this divergence of incentives potentially leads to the litigation of claims that a first-best contract would require to be settled or to the settlement of claims that a first-best contract would require to be litigated. The former problem is thought to be of greater concern in practice because many, probably most, liability insurance policies provide the insurer with authority to settle claims in conjunction with its obligation to defend them. For example, one widely utilized standard form commercial liability policy provides: “We have the right and duty to defend any ‘suit’ seeking (covered) damages. But . . . [w]e may investigate and settle any claim or ‘suit’ at our discretion.”<sup>2</sup> Similarly, a widely used standard form auto insurance policy provides: “We will settle or defend, as we consider

\* Professor of Law, University of Chicago Law School. I am grateful to Dan Fischel, Mark Geistfeld, Steven Shavell, and participants in workshops at the University of Chicago and George Mason University for many thoughts and suggestions.

<sup>1</sup> For a recent survey of various conflicts that may arise, see Kent D. Syverud, *The Duty to Settle*, 76 Va. L. Rev. 1113 (1990).

<sup>2</sup> See Insurance Services Office, *Commercial General Liability Coverage Form* (1984), reprinted in Kenneth S. Abraham, *Insurance Law and Regulation* 440–48, at 442 (1990).

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appropriate, any claim or suit asking for these (covered) damages.”<sup>3</sup> These policies appear to afford the insurer unrestricted authority to settle or litigate claims, save that the insurer seemingly cannot obligate the insured to pay anything toward settlement without the insured’s agreement.<sup>4</sup>

Since the early 1900s, these policy provisions have been the subject of litigation.<sup>5</sup> Courts now routinely impose on the insurer some obligation to consider the interests of the insured notwithstanding the provisions of the contract. This obligation is sometimes stated as a duty to exercise “due care” to protect the interests of the insured, to act in “good faith” with regard to the interests of the insured, or to avoid rejecting settlement offers in “bad faith.”<sup>6</sup>

The precise contours of this obligation still vary somewhat from state to state, as does the remedy on a finding of liability. But one approach, enunciated in *Crisci v. Security Insurance Co.*<sup>7</sup> has become the most common.<sup>8</sup> The *Crisci* court held that “the insurer must give the interests of the insured at least as much consideration as it gives its own interests.” And, “[i]n determining whether an insurer has given consideration to the interests of the insured, the test is whether a prudent insurer without policy limits would have accepted the settlement offer.”<sup>9</sup>

The remedy in *Crisci* itself included damages for mental distress.<sup>10</sup> Such damages are now disfavored, however, and the usual remedy today is to impose on the insurer an obligation to pay for the entire judgment

<sup>3</sup> See Insurance Services Office, *Personal Auto Policy* (1985), reprinted in Abraham, *supra* note 2, at 603–12.

<sup>4</sup> This limitation on the authority of the insurer is not express but follows from the absence of any actual or apparent authority to bind the insured to contribute to settlement.

<sup>5</sup> The earliest case imposing limitations on the insurer’s discretion in settlement is said to be *Brassil v. Maryland Casualty Co.*, 210 N.Y. 235, 104 N.E. 622 (1914). See Robert E. Keeton & Alan I. Widiss, *Insurance Law: A Guide to Fundamental Principles, Legal Doctrines and Commercial Practices* 876 (1988).

<sup>6</sup> See *id.* at 880–83 for citations to cases stating each formulation. Actions against an insurer for failure to take proper account of the interests of the insured may sound in contract (for breach of an implied term) or in tort (for breach of a duty of care), a distinction that is of little practical importance in most cases. *Id.* at 877–79. In some states, the insured has a choice between the two theories. *Id.*

<sup>7</sup> 66 Cal. 2d 425, 58 Cal. Rptr. 13, 426 P.2d 173 (1967).

<sup>8</sup> “The *Crisci* rule is standard law now in most jurisdictions.” Abraham, *supra* note 2, at 586.

<sup>9</sup> 66 Cal. 2d at 429. An early advocate of such a rule was Professor, now Judge, Robert Keeton. See Robert E. Keeton, *Liability Insurance and Responsibility for Settlement*, 67 *Harv. L. Rev.* 1136 (1954).

<sup>10</sup> 66 Cal. 2d at 432–34.

against the insured notwithstanding the policy limits.<sup>11</sup> Coupled with this remedy, an ideally functioning *Crisci* rule induces the insurer to weigh the expected liability judgment plus the costs of litigation against the price of settlement and to choose the least costly option.<sup>12</sup>

One might begin by questioning the need for such a rule in a consensual setting. Granting that insurers rarely negotiate all the terms of contracts with their insureds on a case-by-case basis, the prevalence of competition in the industry, a concern for reputation on the part of insurers, and insurers' desire to maximize customer willingness to pay in relation to costs all provide an incentive for them to offer jointly optimal terms. The absence of any contractual obligation to the insured regarding the disposition of settlement offers then affords some evidence that such an obligation is undesirable from the parties' perspective.

A case for an extracontractual obligation on the insurer might somehow rest on the presence of externalities to the contract,<sup>13</sup> but the courts do not offer this rationale. Instead, they insist that judicial constraints on the insurer are necessary to protect the insured. For this argument to have plausibility, one must assume that transaction costs prevent insureds from appreciating the consequences of the standard right-to-settle clauses *ex ante* or prevent the inclusion of a jointly optimal provision to govern settlement. It is by no means clear that such an assumption is correct. The contractual provisions above, for example, are at least arguably clear on their face in granting sole authority to the insurer to accept or reject offers within the policy limits and, thus, seem unlikely to mislead insureds who reflect on them. As to the costs of substituting a better alternative, standard form provisions in insurance contracts (as elsewhere) greatly reduce the costs per customer of including valuable contractual terms, and if a superior provision existed that was appropriate for all or most insureds, it could readily be incorporated. Even if contracts are "silent" on the matters at issue here, therefore, as some commentators argue,<sup>14</sup> that silence may reflect heterogeneity across custom-

<sup>11</sup> Kenneth S. Abraham, *Distributing Risk: Insurance, Legal Theory and Public Policy* 192 (1986).

<sup>12</sup> This statement is a bit oversimplistic as it ignores the complications that arise under the *Crisci* rule when the settlement offer exceeds the policy limits. These are discussed in Section III below. It also presumes that the courts properly instruct juries to consider not only the size of the expected judgment in relation to the settlement offer but the defense costs that would be saved as well. That they do so clearly and consistently may certainly be doubted. See Syverud, *supra* note 1, at 1139–41.

<sup>13</sup> The discussion in later sections of the article will suggest how externalities may arise due to the insured's potential insolvency.

<sup>14</sup> "The cause of action for bad faith exists in third-party cases because the silence of insurance policies regarding the insurer's duties in responding to policy limits settlement

ers that makes a standard form provision inappropriate. If so, the adoption of any uniformly applicable judicial rule becomes suspect.

The strongest argument to the contrary is that even if insurance customers are reasonably homogeneous in their preferences regarding the insurer's conduct in settlement negotiations, standard form provisions may not reflect those preferences due to information failures. The typical contract does not precisely specify how insurers are to respond to settlement offers, and perhaps customers may not appreciate the potential conflict of interest *ex ante*. Such information failures are a familiar source of contractual imperfection and might allow insurers to foist an opportunistic arrangement on some customers in the absence of adequate reputational constraints or judicial action. Absent judicial constraint, insurers might behave appropriately in their repeated interactions with sophisticated insureds (such as commercial entities that frequently confront liability claims) but take advantage of the unsophisticated insured, particularly individuals, where onetime gains can exceed any losses from damage to the long-term relationship.

While remaining agnostic on the optimality of provisions that seemingly afford the insurer complete discretion in settlement, therefore, this article inquires what well-informed parties would find efficient under plausible assumptions about the contracting environment. To the extent that unfettered discretion for the insurer conflicts with or corresponds to what the economic analysis suggests to be optimal, the inference of contractual imperfection is accordingly strengthened or weakened, as is the suggestion that the contracts should be viewed as ambiguous or incomplete.

A second inquiry in the article is whether the *Crisci* rule is the best response to contractual imperfection, assuming *arguendo* that it is present. Criticisms of contract doctrine for its failure to replicate the first-best world without transaction costs are often unpersuasive or uninteresting,<sup>15</sup> and that is not the objection to the *Crisci* rule here.<sup>16</sup> Rather, the concern

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offers forced the courts to fill this gap and define the insurer's responsibilities." Stephen S. Ashley, *Bad Faith Actions: Liability and Damages* 69, ch. 3 (1992).

<sup>15</sup> See Alan O. Sykes, *The Doctrine of Commercial Impracticability in a Second-best World*, 19 *J. Legal Stud.* 43, 46–50 (1990).

<sup>16</sup> Even a costless and error-free implementation of the *Crisci* rule plainly would not replicate the first best. The insured is risk averse, for example, and thus it is not first best to evaluate settlement offers solely on the basis of the expected dollar costs of litigation. Likewise, the insured may well be insolvent with respect to large liability judgments, so that the expected payment to the plaintiff will often be less than the expected judgment. The present remedy under the *Crisci* rule also ignores what the *Crisci* court itself acknowledged—that insureds may incur psychic costs in litigation as well as monetary costs. But such observations hardly establish that the *Crisci* rule is inferior to some feasible alternative. It is likely impossible to fashion an administrable rule tailored to the degree of the insured's

relates to the administrative and error costs of the *Crisci* rule. Crucial factors in the analysis required—relating to the expected outcome of litigation *ex ante*—are plainly quite difficult to reconstruct *ex post*. Not only is it essential to determine exactly what information was available to the insurer at the time of the settlement negotiation, but it is necessary to ascertain what a reasonable insurer would have thought to be the probability distribution of outcomes conditional on that information, a daunting task in many cases of litigation uncertainty.

Principally for this reason, the question arises whether simpler alternatives to the *Crisci* rule might be preferable, not necessarily because they do better at replicating the first best but because they spare the courts a costly inquiry that can hardly be expected to yield the right answer with consistency. The most obvious alternative is to permit the insurer to exercise unfettered discretion in settlement as long as the contract does not require otherwise. This approach may be termed the "no duty" rule. An alternative rule, widely discussed by the commentators, is a "strict liability" rule that holds the insurer liable for the entire judgment irrespective of policy limits whenever the insurer has rejected a settlement offer within the policy limits.<sup>17</sup> This article offers some tentative thoughts on the question whether either of these simpler options might always or sometimes dominate the *Crisci* rule.

Because there is no conflict of interest absent a policy limit, it is appropriate to begin the analysis by inquiring why the policy limit arises in the first place. Unfortunately, there is no single answer to this question, and I have chosen to focus on only one possibility, albeit an important one—what Shavell has termed the "judgment-proof problem."<sup>18</sup> Insureds with limited assets will not buy unlimited coverage. It does not pay to buy \$1 million worth of liability insurance for a premium of \$5,000, for example, if one's net assets are only \$4,000.

The analysis here suggests that when policy limits are attributable to the limited assets of insureds, either a *Crisci* rule or a strict liability rule often benefits insureds for one reason that is obvious (it reduces the danger that an insurer will inefficiently refuse to settle, thereby putting the insured at risk of an excess judgment) and for one reason that is not

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risk aversion in each case or to the insured's asset level. A remedy that allows mental distress damages may simply be a license for juries to transfer wealth from unsympathetic defendants to sympathetic plaintiffs. Criticisms of the *Crisci* rule from this first-best perspective thus seem inapt.

<sup>17</sup> Discussions of the pros and cons of strict liability that do not squarely favor or reject it may be found in Keeton & Widiss, *supra* note 5, at 887–89; Syverud, *supra* note 1, at 1168–72; Abraham, *supra* note 11, at 193–95.

<sup>18</sup> Steven Shavell, The Judgment Proof Problem, 6 *Int'l Rev. L. & Econ.* 45 (1986).

(it can increase an insured's ability to externalize liability with little or no risk). As between the two rules, a plausible case can be made that the strict liability rule is superior on administrative cost grounds and that arguments against it have been overstated by the commentators. Because either the *Crisci* or strict liability rules *may* increase the extent to which judgment-proof insureds externalize liability, however, their social welfare consequences are at least formally ambiguous.

These results cannot be taken as a reliable guide to policy making, however, not only because of certain indeterminacies, but because other reasons for policy limits and their implications remain unexplored. Thus, I provide a piece of the puzzle, but firm conclusions about the wisdom of bad faith doctrine must await further analytical developments.

Section I discusses the existing literature. Sections II and III develop a model of the optimal insurance contract between an insurer and a potentially judgment-proof insured, deriving the welfare consequences for the parties of the no duty rule, the *Crisci* rule, and the strict liability rule. Section IV concludes by collecting the central implications of the model, discussing the importance of its simplifying assumptions, and addressing the possible divergence between the parties' welfare and social welfare.

#### I. A NOTE ON THE LITERATURE

To the knowledge of the author, the only other formal analysis of the conflict of interest in settlement between insurer and insured is contained in a recent paper by Michael Meurer.<sup>19</sup> Simple numerical examples suffice to convey the essence of his argument.

Meurer's prospective defendant knows that in the event of an accident, the injured party can go to court and obtain a judgment. Suppose for purposes of illustration that the court will set damages at either \$10,000 or \$50,000, with the probability of each judgment equal to .5. Expected liability is thus \$30,000. Settlement negotiations will occur prior to the resolution of the uncertainty about liability. Litigation costs in the absence of settlement are \$10,000 for each party. The defendant is able to pay any judgment against him.

Consider first a risk-neutral defendant without insurance. The expected gain from litigation to the plaintiff is \$20,000, and the expected loss to the defendant in litigation is \$40,000. The \$20,000 difference, equal to combined litigation expenses, represents the joint gains to settlement. Meurer assumes that the parties always "split the difference" in bar-

<sup>19</sup> Michael Meurer, *The Gains from Faith in an Unfaithful Agent: Settlement Conflicts between Defendants and Liability Insurers*, 8 J. L. Econ. & Org. 502 (1992).

gaining, so that settlement occurs here at a payment of \$30,000, exactly equal to expected liability.<sup>20</sup>

Now suppose that the same defendant has purchased an insurance policy with a \$25,000 policy limit. Assume that the insurer now bears the defense costs of \$10,000 and that the policy gives the insurer sole discretion over settlement. Once again, the plaintiff's expected gains from litigation are \$20,000 because the excess judgment over the policy limit will be collected from the insured. What is the maximum that the insurer will offer in settlement? Its expected payment under the policy at the conclusion of litigation is  $.5(\$10,000) + .5(\$25,000) = \$17,500$ . If it elects to litigate, it will also bear defense costs of \$10,000 (the insurer bears defense costs because of its duty to defend). Thus, at first blush, it seems that the insurer would offer up to \$27,500 to avoid litigation. In fact, however, the insurer may be able to fulfill its obligations by tendering the policy limits of \$25,000 and walking away from the matter,<sup>21</sup> and this amount then represents the upper bound on the insurer's offer. But in either case, because the plaintiff will settle for amounts over \$20,000, a settlement will be possible. Further, if the insured does not contribute to the settlement, any amount within the settlement range is plainly below what the uninsured defendant would have paid to settle (\$30,000) under the split-the-difference assumption. Thus, even without any risk aversion on the part of the defendant, Meurer argues, insurance is beneficial to the defendant on these facts because it delegates the authority to bargain to the insurer who rationally refuses to pay as much as the insured might have to pay in the absence of insurance. The plaintiff nevertheless settles because the expected outcome of litigation is even less favorable, and the defendant benefits *ex ante* because the competitively determined insurance premium is less than the expected judgment in the absence of insurance.

Delegation of authority to the insurer is a two-edged sword, however, as the following modified hypothetical suggests. Suppose now that the liability judgment will equal either \$20,000 or \$100,000, again with probability .5 for each outcome. The policy limit is assumed to be \$50,000 and litigation costs are as before. Plaintiff's expected gain from litigation is \$50,000, yet insurer's expected loss in litigation is only  $.5(\$20,000) + .5(\$50,000) + \$10,000 = \$45,000$ . Settlement here is impossible on the assumption that the insured cannot be induced to contribute. If this situation were sure to materialize after an accident, the purchase of insurance

<sup>20</sup> That is, the plaintiff receives a settlement equal to its "threat point" of \$20,000 plus half the joint gains.

<sup>21</sup> See, for example, the standard form contracts quoted in the introduction.



with the insurer in charge of settlement would be disadvantageous to the prospective defendant *ex ante* because the defendant not only would bear the full expected judgment (through a combination of insurance premiums and stochastic *ex post* liability in excess of policy limits) but also would have to pay a premium to cover the insurer's expected litigation costs. Of course, these cases of undesired litigation are precisely the reason for disputes such as *Crisci*.

Because the insured chooses the policy limit and thus has an opportunity to optimally balance gains in bargaining against costs from inefficient litigation, however, Meurer contends (and demonstrates in his model) that a risk-neutral insured can always find a level of coverage that is preferable to self-insurance and that many risk-averse insureds can as well. Hence, he argues that the delegation of settlement authority to the insurer is often optimal for parties to an insurance contract and that lawsuits after the fact by disappointed insureds represent an effort to renege on an implicit bargain.

The *Crisci* rule functions in Meurer's model to force the insurer to settle on more generous terms and thus reduces the welfare of the insured *ex ante*. Because the insurer will be liable to the insured for rejecting an offer if the expected costs in litigation exceed the offer, the insurer's threat point is the same as that of a solvent, uninsured, risk-neutral defendant. Meurer's split-the-difference assumption then leads to the insurer's settling for the same amount as the uninsured risk-neutral defendant, and the bargaining advantage of delegating settlement authority to the insurer is lost.

Meurer argues that the *Crisci* rule is nevertheless socially desirable for three reasons: (1) it eliminates the danger of socially inefficient litigation as in the second case described above; (2) under the assumption that the insured is risk averse, it eliminates the incentive for the insured to take on excessive amounts of risk through policy limits that increase bargaining power in settlement; and (3) under the assumption that expected judgments equal the expected social costs of accidents, it induces optimal caretaking *ex ante* by prospective injurers.

Meurer's analysis is intriguing but is subject to several objections. First, if the no duty rule is indeed superior from the parties' perspective, we might expect efforts to contract around the *Crisci* rule through the creation of crystal clear provisions that eliminate any arguable ambiguity regarding the insurer's sole discretion in settlement. At least between an insurer and a sophisticated, commercial insured, such provisions would have a reasonable chance of being enforced, yet they do not appear to have been forthcoming.

A second objection relates to a questionable assumption in Meurer's

analysis, crucial to the results—that the insured does not participate in settlement negotiations even when it might be in its interest to do so and even when it might be in the plaintiff's interest to draw the insured into the negotiations.<sup>22</sup> In the first case discussed above, for example, it is plausible that the plaintiff would undertake to bargain not only with the insurer but also with the insured. Rather than settling for some amount below the insurer's maximum offer, the plaintiff might hold out for some amount that required a contribution from the insured, who on the hypothetical facts faces considerable exposure in the event that settlement negotiations break down. Similar intervention by the insured might prevent the inefficient litigation described in the second case. Indeed, Meurer himself analyzes instances in which the insurer concludes a settlement that obligates the insured to contribute, even though contractual authority to do so apparently does not exist in insurance contracts and thus any such settlement would require participation of the insured in the settlement negotiations.<sup>23</sup> And, once the insured participates, the bargaining advantage purportedly created through delegation of bargaining authority seemingly disappears.

Meurer acknowledges the problem briefly and responds by suggesting that when the contract affords the insurer sole discretion in settlement, the insurer will refuse to allow the insured to participate in settlement negotiations in any manner to maintain a reputation for being a tough bargainer.<sup>24</sup> It is not clear that this response is satisfactory—if an insurer behaves in this fashion, the plaintiff and the insured will have an incentive to strike side deals without the insurer's knowledge. Perhaps a more persuasive defense of the assumption that the insured does not contribute to settlement is that the transaction costs of doing so can be high. Insureds often lack separate counsel and may be ignorant of their exposure in the event of litigation. Counsel for the insurer may even mislead them into underestimating their exposure at trial. Plaintiffs will then have difficulty communicating effectively with insureds about the possible merits of a contribution to settlement and often may not bother to try. Still, the suspicion remains that efforts by plaintiffs to draw insureds into negotiations will sometimes be successful and that insurers will then have difficulty insisting that the plaintiff settle for the insurer's best offer when the insured is willing to chip in more if necessary.

<sup>22</sup> A further problem is that Meurer's depiction of threat points seemingly fails to take proper account of the insurer's ability to tender the policy limits and walk away from any duty to defend. But this deficiency does not go to the heart of any of his conclusions.

<sup>23</sup> Meurer, *supra* note 19, at 510 (see, for example, eq. [7]).

<sup>24</sup> In fact, in *Crisci* itself, the insurer refused to settle at one point despite the expressed willingness of the insured to contribute a modest amount. *Id.*

There is a third objection to Meurer's analysis. His model implies that the existence of insurance *decreases* the plaintiff's ultimate recovery under the no duty rule. Yet, even in the days before bad faith litigation, rarely would we imagine plaintiffs' lawyers lamenting the fact that the tortfeasor was insured. One reason, omitted from Meurer's analysis, is that the transaction costs of collecting judgments directly from a tortfeasor may greatly exceed the costs of collecting from an insurance company with a reputational interest in paying legitimate claims promptly to keep its policyholders happy. A second and more important reason, also omitted from Meurer's analysis, is that tortfeasors often have limited assets and insurance then *increases* the potential recovery of the plaintiff.

Indeed, as noted earlier, the fact that insureds have finite assets affords a standard explanation for the existence of policy limits.<sup>25</sup> This observation suggests a range of additional issues relating to the choice among the *Crisci* rule and its alternatives that remain to be explored.

## II. POLICY LIMITS AND THE JUDGMENT-PROOF PROBLEM WHEN THE INSURED DOES NOT PARTICIPATE IN SETTLEMENT NEGOTIATIONS

This section develops a model of the optimal contract between an insurer and an insured with limited assets. As noted, the analysis may be interpreted both as an inquiry into the appropriate default option for an incomplete contract and as an inquiry into the question whether an unambiguous contract that allocates complete discretion over settlement to the insurer is the product of market failure. I reiterate once again the lack of generality owing to the exclusion of other explanations for policy limits.

As the discussion of Meurer's model suggests, the effects of an arrangement that grants discretion over settlement to the insurer may depend importantly on the extent to which the insured participates with the insurer in settlement negotiations. The analysis in this section assumes that

<sup>25</sup> Another important reason why risk-averse individuals do not purchase coverage sufficient to protect their assets against any possible judgment is that the price of insurance is not "actuarially fair"—that is, the expected dollar payout under the policy is less than the premium. A classic exposition of optimal insurance purchases when the premium exceeds the actuarially fair price is Kenneth V. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 *Am. Econ. Rev.* 941 (1963) (appendix). See also Karl H. Borch, *The Economics of Insurance* 144–50 (1990). It is also sometimes claimed that adverse selection problems lead to policy limits, with low-risk insureds buying low levels of coverage at an attractive price and high-risk insureds buying greater coverage at a premium price. See Syverud, *supra* note 1, at 1134–35; George L. Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 *Yale L. J.* 1521, 1573 (1987). Moral hazard is another explanation, discussed briefly below. This list is not exhaustive.

the insured does not participate because of high transaction costs, an assumption that the next section relaxes.

Some readers will have difficulty following the formal analytics. Unfortunately, because of the need to work with a concave utility function (risk aversion), transparent numerical examples are rather difficult to construct. Nevertheless, a numerical illustration that conveys many of the essential points may be found in Section IID.

To simplify the exposition of the basic results, assume that litigation costs are zero for both parties. I recognize that this assumption will seem peculiar in a model that concerns settlement negotiations, but the insights of the model do not turn on it. Section IV will discuss the implications of relaxing it and indicate why the key insights survive.

Assume further that insurance is sold at an actuarially fair premium, which implies that expected liability payments under any policy are equal to premiums collected. In addition, assume that the insurer knows the precise risk associated with insuring any policyholder. These assumptions rule out two alternative explanations for policy limits that would otherwise require attention.<sup>26</sup>

The insured has a Von Neumann–Morgenstern utility function in wealth,  $u(\cdot)$ , strictly increasing and strictly concave (risk aversion). Prior to any assessment of liability or purchase of insurance coverage, the insured's wealth is  $w$ .

With probability  $\alpha$  an accident will occur, and subsequently the injured party will have an opportunity to obtain a judicial determination as to the amount of the insured's liability. The accident probability is exogenous, although the implications of allowing it to depend on the insured's level of care will be addressed later. The absence of a care decision here, of course, implies that the insured's activities are subject to a strict liability rule.

Assume that litigation after the accident will result in the imposition of one of three levels of liability on the insured, all strictly positive—call them  $L_1$ ,  $L_2$ , and  $L_3$ . The probability of each judgment is correspondingly  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$ , and the expected liability judgment,  $L$ , is then  $\sum_i \beta_i L_i$ . These probabilities are known to all parties.

Think of  $L_1$  as "low" liability,  $L_2$  as "modest" liability, and  $L_3$  as "high" liability.<sup>27</sup> Assume that the insured is always able to pay a "low"

<sup>26</sup> See note 25 *supra*.

<sup>27</sup> The reason for analyzing a model with three levels of liability relates to the operation of the *Crisci* rule, which under present assumptions places no restrictions on the insurer unless a settlement offer is received within the policy limits. For such an offer to be made under the zero litigation costs assumption when the insured has partial coverage, there must exist at least three levels of liability.

or “modest” judgment whatever the level of insurance coverage but is unable to pay a “high” judgment unless insured. Hence,  $L_1 < L_2 < w < L_3$ . Assume further, though not essential to the results, that  $L_3 - L_2 > w$ . This assumption implies that the insured will still become insolvent in the event of “high” liability even if insurance coverage equal to  $L_2$  has been purchased.

After an accident but prior to trial, the parties will have an opportunity to settle the case. Assume that the plaintiff is risk neutral, let the plaintiff's expected return from trial equal  $S_p$ , and assume that the plaintiff will never thwart settlement by insisting on more than  $S_p$ . It is not necessary to specify a bargaining model to determine the division of the gains from settlement when the insurer is willing to pay more than  $S_p$  because, as the analysis will show, the settlement range collapses to a point when the insured selects coverage optimally.

Under any contractual or judicial default rule, the insured's optimization problem involves the selection of a level of coverage,  $c$ , given the anticipated behavior of the insurer in the event of a claim, and given the actuarially fair premium,  $\pi(c)$ .

#### A. *The No Duty Rule*

Consider first the consequences of an express or implied “no duty” rule that allows the insurer to accept or reject settlement offers solely with reference to its own financial interests. Under this rule as under any other, the plaintiff will insist on receiving at least  $S_p$  in settlement. But the insurer operating under a no duty rule expects to lose less than this amount at trial if the insured has selected a level of coverage below  $L_3$ , the upper bound on liability (remember the zero litigation costs assumption)—the reason is that the insured will contribute something to the plaintiff's recovery in the event that the judgment equals  $L_3$ . Hence, with less than full coverage, litigation will occur. Of course, with positive litigation costs, settlement is still possible with less than full coverage, but as argued in Section IV this complication does not undermine the qualitative results that this simpler model suggests.

Using the assumption that the insured can always pay “low” or “modest” judgments, the insured's optimization problem is then to select coverage  $c$  to maximize

$$\begin{aligned} E\{u(\cdot)\} &= (1 - \alpha)u[w - \pi(c)] + \alpha\beta_1 u\{w - \pi(c) - L_1 + \min[c, L_1]\} \\ &\quad + \alpha\beta_2 u\{w - \pi(c) - L_2 + \min[c, L_2]\} \\ &\quad + \alpha\beta_3 u(\max\{0, w - \pi(c) - L_3 + \min[c, L_3]\}) \end{aligned}$$

subject to  $\pi(c) = \alpha\{\beta_1 \min(c, L_1) + \beta_2 \min(c, L_2) + \beta_3 c\}$ .

This problem is a variant of a slightly simpler problem discussed by Shavell.<sup>28</sup> Because the objective function is not continuously differentiable, no single set of first-order conditions is necessary for its solution. Instead, the usual first-order conditions determine only a "suboptimum" for each of the three regions where differentiability holds (that is, the regions  $c \in [0, L_1]$ ;  $c \in (L_1, L_2]$ ; and  $c \in (L_2, L_3]$ ). The three suboptima must then be compared to ascertain which is the global optimum.

Because Shavell solved a similar problem elsewhere and because the algebra is lengthy yet straightforward, I omit the mathematics of the solution and simply state it:<sup>29</sup> the optimal value of coverage,  $C$ , satisfies  $C \in [0, L_2]$  or  $C = L_3$ .

Intuitively, an individual who is close to risk neutral may prefer a zero level of coverage. Even though the premium is actuarially fair from the insurer's perspective, which ordinarily would lead to the purchase of full coverage by any risk averter, a portion of the premium benefits not the insured but the plaintiff. More precisely, if the insured purchases one dollar of coverage, the insured benefits from that purchase only if liability is "low" or "modest," and the plaintiff receives the benefits when liability is "high." Consequently, from the insured's perspective, the price of coverage is not actuarially fair. A risk-neutral individual is strictly worse off buying coverage, therefore, and someone close to risk neutral can be as well.

At the other end of the continuum, individuals who are quite risk averse may select full coverage. Even though full coverage increases the expected award to the plaintiff, perhaps considerably, by eliminating the judgment-proof problem, it also provides the insured with a level of wealth that is constant across all contingencies and is thus appealing to risk averters.<sup>30</sup> Insureds are also more likely to select full coverage if the "high" liability outcome involves a judgment only modestly in excess of their assets or if its probability,  $\beta_3$ , is very small, for then the "subsidy" to the plaintiff under full coverage is less.

Intermediate levels of coverage are also possible. Moderately risk-averse individuals may find that it pays to buy some protection against "low" and "modest" losses yet does not pay to insure against the highest

<sup>28</sup> See Shavell, *supra* note 18; Steven Shavell, *Economic Analysis of Accident Law* 257-58 (1987). In fact, Shavell notes the solution to this problem as well though he does not supply the algebra.

<sup>29</sup> The author will supply the formal derivation on request.

<sup>30</sup> It is perhaps instructive to consider a utility function that reflects the most extreme risk aversion possible:  $u(\cdot) = \min_i \{w_i\}$ , where  $i$  is an index of states of nature. An individual with this utility function cares only about the worst-case scenario and will surely prefer full coverage.

possible loss given the fact that part of the premium goes to benefit the plaintiff. Again, the greater is the excess of "high" liability over the insured's assets, and the greater is the probability of "high" liability, the more likely that an insured who opts for some coverage will select only partial coverage.

The solution excludes levels of coverage greater than or equal to  $L_2$  but less than  $L_3$ . The intuition here is that at coverage levels above  $L_2$ , the marginal premium dollar funds greater levels of coverage for the "high" liability outcome only. Up to the point at which the insured is able to pay the entire "high" judgment through a combination of insurance coverage and other assets, all of the additional coverage benefits the plaintiff. Clearly, therefore, the marginal returns to additional coverage over this range are negative. And, once the level of coverage rises to the point that the insured has some assets left after paying the "high" judgment, additional insurance becomes actuarially fair from the insured's perspective, and it pays to go all the way to full coverage. It can also be shown readily that at coverage exactly equal to  $L_2$ , the marginal utility of coverage is negative for reasons relating to the fact that insurance at that level is actuarially unfair from the insured's perspective.

### B. *The Crisci Rule*

We now inquire whether an express or implied *Crisci* rule will benefit the insured relative to the no duty rule (the insurer by assumption earns zero profits under all circumstances and is thus indifferent among legal/contractual regimes). For purposes of the model, the *Crisci* rule is assumed to function costlessly and without error, and thus the results here surely afford a generous assessment of its effects.

Recall that the most general statement of the *Crisci* rule holds the insurer liable for failure to settle whenever the settlement offer is below the expected liability judgment plus the costs of litigation. In fact, the operation of the rule is somewhat more complicated because that condition may hold, yet the settlement offer may exceed the policy limits and thus exceed what the insurer is obligated to pay. Some commentators suggest that the *Crisci* rule applies only when the insurer has received an offer within the policy limits,<sup>31</sup> while others suggest that liability should also attach if the insured was willing to contribute the difference between the policy limits and a settlement offer in excess of them.<sup>32</sup> In this section, however, we have assumed that the insured does not offer to contribute

<sup>31</sup> See Abraham, *supra* note 11, at 191–92.

<sup>32</sup> See Keeton & Widiss, *supra* note 5, at 890–91.

to settlement because of high transaction costs. Thus, the *Crisci* rule has bite in the model only when the plaintiff is willing to settle for an amount within the policy limits. Formally, using the zero litigation costs assumption, the *Crisci* rule imposes liability when the plaintiff’s best settlement offer,  $S$ , satisfies  $S \leq c$  and  $S \leq L$ .

Further, drawing on the assumption that the plaintiff never thwarts settlement by insisting on more than the returns to trial, it follows that the plaintiff is always willing to settle for an amount  $S \leq L$  because  $L$  is the upper bound on the returns to trial. Consequently, anytime the parties fail to settle *and* the plaintiff has made an offer within the policy limits, liability will attach in this model under the *Crisci* rule. By contrast, when the failure to settle is because the plaintiff does not make an offer within the policy limits, the insurer faces no exposure under *Crisci*.

This proposition suggests that a critical level of coverage will exist, below which the *Crisci* rule is of no consequence because the plaintiff will not settle within the policy limits. Above that critical level, however, the plaintiff is willing to settle within the policy limits, and the insurer faces expected costs at trial equal to  $L$  if the settlement offer is rejected. Hence, the insurer will settle because the prospective trial outcome is no better and perhaps worse.

More precisely, imagine that the insured has purchased coverage so that the plaintiff’s returns to trial—and thus best offer in settlement negotiations—are exactly equal to the level of coverage. When the plaintiff makes a settlement offer equal to this level of coverage, the insurer will accept it under the *Crisci* rule. Hence, for this level of coverage, call it  $\Omega$ , the actuarially fair premium is equal to  $\alpha\Omega$ .

Plainly, this critical level of coverage exceeds  $L_1$ , the “low” level of liability, because when the insured purchases  $C = L_1$ , the plaintiff’s returns to trial are  $\beta_1 L_1 + \beta_2 L_2 + \beta_3 [w - \pi(L_1) + L_1]$ , an amount that surely exceeds  $L_1$ . The critical level of coverage may or may not be below  $L_2$ , a fact that becomes significant in a moment.

Depending on parameter values, it turns out that there may or may not exist  $\Omega$  such that  $\Omega < L$ . Recalling that the plaintiff’s recovery in the event of a judgment equal to  $L_3$  will be  $\min[w - \pi(c) + c, L_3]$ , the question whether there exists  $\Omega < L$  is equivalent to the question whether there exists a level of coverage, call it  $c^*$ , such that  $c^* < L$  and  $c^*$  satisfies

$$c^* = \beta_1 L_1 + \beta_2 L_2 + \beta_3 [w - \alpha c^* + c^*]. \tag{1}$$

This equation can be solved for  $c^*$  readily. If the resulting value of  $c^* < L$ , some algebra shows that  $w + (1 - \alpha)L < L_3$  must hold. For a combination of parameter values that satisfies this inequality, therefore, there



exists a level of coverage below  $L$  at which the plaintiff will settle for exactly the policy limit. And, for any combination of parameter values,  $\Omega = \min(c^*, L)$ .

We can also show readily that when  $\Omega = c^*$ , a settlement offer will be forthcoming within the policy limits for any higher value of coverage. This is obvious for coverage of  $L$  or greater, because the plaintiff's returns to trial are never more than  $L$ . For  $c^* < c < L$  as well, the plaintiff will not insist on more than  $c$ . To see why, refer to equation (1), and note that as  $c$  increases above  $c^*$ , the left-hand side rises faster than the right-hand side. But the right-hand side is simply the plaintiff's returns to trial, which are thus less than the policy limit.

We can now establish two propositions:

**PROPOSITION 1.** When  $\Omega = L$ , the *Crisci* rule is of absolutely no significance to the insured.

*Proof.* The proof has two parts. First, we show that if  $L \leq L_2$ , then  $\Omega = c^*$ . Hence, we rule out the possibility that the critical level of coverage is  $L$  in this situation. To do so, recall that we have already shown that  $c^* > L_1$ —thus, substituting  $L_1$  for  $c^*$  in equation (1), the right-hand side will exceed the left-hand side. At  $c = L \leq L_2$ , the returns to trial for the plaintiff are less than  $L$ , using the assumption that at coverage levels below  $L_2$  the insured still becomes insolvent in the event of "high" liability. Thus, substituting  $L$  for  $c^*$  in equation (1), the left-hand side exceeds the right-hand side. And, because the derivative of the left-hand side of the equation with respect to  $c$  is unity, while the derivative of the right-hand side is less than unity, it follows that there exists  $c^*$  such that  $L_1 < c^* < L$  and equation (1) holds. Hence,  $\Omega = L$  implies that  $L > L_2$ .

For the second part of the proof, recall that under the no duty rule, the optimal value of coverage is either less than  $L_2$  or equal to  $L$ . Hence, for any value of coverage that is optimal under the no duty rule *other than*  $L$ , no settlement offer will be forthcoming within the policy limit at that level of coverage under the *Crisci* rule. Therefore, the same policy will be available to the insured under the *Crisci* rule (that is, the insured can purchase the same coverage for the same premium). And, because the premium for a policy with coverage of  $\Omega$  or greater under the *Crisci* rule is  $\alpha L$  and the insured is fully protected against liability, it follows that the insured is indifferent between such a policy and full coverage under the no duty rule. In short, any optimal policy under the no duty rule can be replicated under the *Crisci* rule, and the *Crisci* rule does not make possible any policy that could dominate the policy that is optimal under the no duty rule. Q.E.D.

**PROPOSITION 2.** When  $\Omega = c^*$ , the insured can only benefit from the *Crisci* rule.

*Proof.* For levels of coverage below  $c^*$ , as noted, the *Crisci* rule is of no consequence because the plaintiff is not willing to settle within the policy limits. The case will be litigated as before. Hence, with the *Crisci* rule in place, the insured can still choose any level of coverage  $c < c^*$ , pay the same premium as under the no duty rule, and have the same expected utility. What remains is to show how the *Crisci* rule can benefit the insured.

Observe that no rational insured would purchase more than  $c^*$  in coverage under the *Crisci* rule.<sup>33</sup> For any choice of  $c \geq c^*$ , settlement invariably occurs because an offer is received within the policy limits. The insured is no longer exposed to any liability in litigation, and thus the insured's utility level is now certain, given by the expression  $u\{w - \alpha[\min(c, L)]\}$ . This expression is strictly decreasing in  $c$  over the range  $c^* \leq c \leq L$ . Thus,  $c^*$  is the insured's best choice in this range. Proposition 2 will now be established by showing that expected utility is higher with coverage of  $c^*$  under the *Crisci* rule than at any level of coverage equal to  $c^*$  or higher under the no duty rule.

As we recall the set of conceivable optima under the no duty rule, there are two possibilities. The first is that the insured buys full coverage under the no duty rule. Expected utility is plainly greater with coverage  $c^*$  under the *Crisci* rule because the insured faces no liability exposure in either case, but the premium under the *Crisci* rule is less than it is under the no duty rule:  $\alpha c^* < \alpha L$ .

The second possibility is that the optimum under the no duty rule lies in the region  $c^* < c < L_2$ . Consider first the special case where  $c = c^*$  under the no duty rule. Observe that the insurer expects to pay at trial the amount  $\pi(c^*) = \alpha[\beta_1 L_1 + (\beta_2 + \beta_3)c^*]$  while the expected liability of the insured in excess of the policy limit is  $\alpha\beta_2(L_2 - c^*) + \alpha\beta_3\{w - \pi(c^*)\}$ . Because the premium is actuarially fair, the expected *wealth* of the insured is then equal to  $w$  less the sum of these two amounts, call it  $\Gamma$ , given by  $\Gamma = \alpha\{\beta_1 L_1 + \beta_2 L_2 + \beta_3[w - \pi(c^*) + c^*]\}$ . Under the *Crisci* rule, the insured faces no expected liability from trial because settlement will occur at  $c^*$ . The insured's expected wealth is thus equal to  $w$  less the actuarially fair insurance premium for coverage  $c^*$ , equal to  $\alpha c^*$ . By equation (1),  $\alpha c^* < \Gamma$ , and thus the insured's expected wealth is higher at coverage level  $c^*$  under the *Crisci* rule than under the no duty rule. Further, the insured enjoys his expected wealth with certainty under the *Crisci* rule but not under the no duty rule. By Jensen's unequal-

<sup>33</sup> Note that because of this result, the settlement range when the plaintiff makes an offer within the policy limits collapses to a point as suggested earlier, and the division of surplus between the insurer and the plaintiff need not be addressed.

ity, which holds that for any random variable  $\theta$ ,  $Eu(\theta) < u(E\theta)$  for any concave function  $u(\cdot)$ , the insured is surely better off under the *Crisci* rule.<sup>34</sup> Finally, consider the more likely case where  $c^* < c < L_2$  under the no duty rule. The sum of the amounts that the insurer and insured expect to pay at trial is now given by  $\alpha\{\beta_1 L_1 + \beta_2 L_2 + \beta_3[w - \pi(c) + c]\}$ . This amount assuredly exceeds  $\Gamma$  by the fact that  $\partial[w - \pi(c) + c]/\partial c > 0$ . Therefore, the insured's expected wealth must be even lower at such a coverage level under the no duty rule than it is for coverage level  $c^*$ . Again, it follows that the insured is better off at coverage level  $c^*$  under the *Crisci* rule. Q.E.D.

These results imply that when full coverage is optimal under the no duty rule, the insured will reduce coverage to  $c^*$  under the *Crisci* rule. The insured then enjoys greater expected utility under the *Crisci* rule because the actuarially fair premium for coverage  $c^*$  under the *Crisci* rule,  $\alpha c^*$ , is less than the actuarially fair premium for full coverage under the no duty rule,  $\alpha L$ . The insured also enjoys greater expected utility under the *Crisci* rule if coverage under the no duty rule would be partial but would equal or exceed  $c^*$ . Finally, if optimal coverage under the no duty rule is less than  $c^*$ , then the *Crisci* rule either makes no difference (because the same coverage level for the same premium and with the same expected utility is also available under the *Crisci* rule) or benefits the insured by allowing the insured to purchase coverage at  $c^*$  for the premium  $\alpha c^*$ .

### C. The Strict Liability Rule

In the model, a strict liability rule functions identically to the *Crisci* rule. When the insured selects a level of coverage so low that no settlement is possible within the policy limits, neither the *Crisci* rule nor the strict liability rule exposes the insurer to any prospect of liability. When the insured selects coverage in excess of the plaintiff's minimum demand in settlement, the rejection of the plaintiff's best offer results in liability on the insurer under both rules. Liability follows immediately under the strict liability rule and also follows under an error-free *Crisci* rule because the plaintiff's best offer never exceeds  $L$ , the expected judgment at trial.

Hence, the structure of insurance premiums and the utility possibilities for the insured are identical under the strict liability and *Crisci* rules. In the model, both dominate the no duty rule equally from the insured's perspective. And both produce settlement any time an offer is received

<sup>34</sup> See generally Michael Rothschild & Joseph F. Stiglitz, *Increasing Risk I: A Definition*, 2 J. Econ. Theory 225 (1970).

within the policy limits by the insurer, so that the actual level of litigation between insurers and insureds in the model is nil under either rule.

It is instructive to contrast the conclusions here with those of Meurer. In Meurer's model, the insured benefits from the no duty rule because it enables the selfish insurer to bargain for a better settlement than can be reached under the *Crisci* rule (or strict liability), an advantage that the insured reaps in the form of lower premiums. In this model, both the *Crisci* rule and the strict liability rule encourage settlements by the self-interested insurer when coverage is partial. The insured can benefit because settlements eliminate risk for the insured and because they occur at less than the expected value of the judgment at trial due to the insured's limited assets. Accordingly, the premium for coverage is below the expected liability judgment even though the insured is protected against risk by the fact that the insurer will settle within the policy limits. Under the no duty rule, by contrast, the insured can eliminate the risk of judgments over the policy limit only by purchasing full coverage at a premium that in turn will reflect the expected value of the judgment.

#### D. A Numerical Example

To keep the illustration as simple as possible, I will not assume a particular utility function for the insured but will simply show how the choices available to the insured change as the legal rule changes. Assume that  $\alpha = 1/10$  and that the  $\beta_i$  are all equal to  $1/3$ . Let the insured's wealth equal \$100,000, and let  $L_1 = \$3,000$ ,  $L_2 = \$30,000$ , and  $L_3 = \$300,000$ . The expected judgment at trial,  $L$ , is thus equal to \$111,000.

One option available to the prospective insured is to forgo coverage altogether and thus bear an expected loss of \$4,433 ( $1/10$  times the plaintiff's expected collection from the insured at trial). Under the no duty rule, another option would be to select full coverage of \$300,000 for an actuarially fair premium of \$11,100 ( $1/10L$ ). Partial coverage levels are also a possibility, though the analysis above rules out coverage of \$30,000 or more. Without knowing the insured's utility function, we cannot ascertain precisely what coverage level will be selected.

Under the *Crisci* or strict liability rules, some algebra verifies that  $\Omega = c^*$ . The lowest level of coverage at which settlement will occur is then given by equation (1), which can be solved readily to yield  $c^* = \$63,333$  (approximately). By purchasing this amount of coverage, the insured will have enough that the plaintiff's settlement offer falls within the policy limit, and the insurer will accept it. The actuarially fair premium for this level of coverage is \$6,333. By purchasing coverage in this amount, the risk-averse insured can eliminate all risk (settlement occurs and hence

there is no exposure to an excess judgment at trial) and can do so for only about 57% of the cost of eliminating all risk under the no duty rule (the purchase of full coverage).

Without knowing the insured's utility function, we cannot know what options the insured would select under either rule. It is certainly plausible that some insureds under the no duty rule might forgo coverage, or select only partial coverage, yet would find the opportunity to eliminate all risk for \$6,333 quite attractive under the *Crisci* or strict liability rule. In that event, either of those rules would have induced the insureds to absorb a greater proportion of the expected loss associated with their activities. It is also plausible that some insureds would select full coverage under the no duty rule. They would then reduce their coverage to \$63,333 under the *Crisci* or strict liability rules, and thus a shift to either rule would have induced the insureds to externalize some of the expected losses associated with their activities.

### III. POLICY LIMITS AND THE JUDGMENT-PROOF PROBLEM WHEN THE INSURED DOES PARTICIPATE IN SETTLEMENT NEGOTIATIONS

It remains to consider a number of practical complications relating to some strong assumptions in the model and to consider the relation between the insured's welfare and social welfare. But prior to a discussion of these issues, it is useful to relax the formal assumption that the insured never offers to contribute to settlement.

The key proposition above, that the *Crisci* rule or a strict liability rule allows the insured to eliminate risk while still externalizing some portion of the expected judgment, remains valid when the insured participates in settlement negotiations and contributes to settlement. The primary difference here is that if the insured can contribute to settlement, litigation will never occur when the plaintiff, defendant, and insurer have common beliefs about the outcome of litigation. Risk can still exist for the insured, however, because in the event of an accident a contribution to settlement may be required.

Another difference arises because the settlement range need no longer collapse to a point. The division of gains from settlement then becomes an issue.

#### A. *The No Duty Rule*

Retaining the familiar notation, the plaintiff's expected returns at trial (given that an accident has occurred) are still  $S_p = \beta_1 L_1 + \beta_2 L_2 + \beta_3 \min[w - \pi(c) + c, L_3]$ . Define the insurer's expected losses at trial as

$S_r = \beta_1 \min(c, L_1) + \beta_2 \min(c, L_2) + \beta_3 c$ . Plainly,  $S_r < S_p$  for coverage less than  $L_3$ , and thus the plaintiff’s minimum settlement demand exceeds what the insurer is willing to pay.

Assume that the transaction costs of participation in the settlement negotiation are zero for the insured. Because the insured is risk averse, the amount that the insured will contribute to settlement surely exceeds the expected value of the insured’s losses at trial (Jensen’s inequality again). Since the latter amount is simply  $S_p - S_r$ , it follows that the insured is always willing to contribute more than the difference between the plaintiff’s expected returns at trial and the insurer’s expected losses to avoid litigation. Settlement should always occur, and a range of settlement outcomes is possible.

The terms of settlement will depend on the bargaining process. It is possible that the insurer will be able to reduce its contribution to settlement below its expected loss at trial<sup>35</sup> and that the plaintiff may be able to hold out for more than the expected returns to trial. To avoid specifying a process to determine the precise terms of settlement, I simply assume in this section that the best-case outcome for the insured will prevail. This is no doubt unrealistic but is at least arguably harmless for purposes of the present exercise because the objective is to compare the effects of alternative rules on welfare. As long as the assumption about the insured’s bargaining strength is maintained throughout the comparison, the conclusions about the relative merits of the alternative rules should not be distorted.

In the best-case scenario for the insured, the insured’s contribution to settlement under the no duty rule, call it  $S_i$ , is simply the difference  $S_p - S_r = \beta_1 \min[L_1 - \min(c, L_1)] + \beta_2 [L_2 - \min(c, L_2)] + \beta_3 \min[w - \pi(c), L_3 - c]$ . The insured’s expected utility can then be written

$$E\{u(\cdot)\} = (1 - \alpha)u[w - \pi(c)] + \alpha u[w - \pi(c) - S_i],$$

where  $\pi(c) = \alpha S_r$ .

The insured will choose coverage to maximize this expression.

Again the algebra is lengthy yet straightforward, and I will simply state the solution, which is almost identical to the solution when the insured does not contribute to settlement. Optimal coverage  $C$  satisfies  $C \in [0, L_2]$  or  $C = L_3$ . The intuition regarding the solution possibilities is much as before.

<sup>35</sup> Competitive pressures would then drive the actuarially fair premium lower, but the prospect that premiums will fall in the aggregate is not enough to discourage individual insurers from obtaining the best deal possible in each case. Reputational concerns are a more likely source of restraint on aggressive bargaining by the insurer at the expense of the insured, but one cannot be certain that they would suffice to discourage it altogether.

The insured is better off under the no duty rule when a contribution to settlement is possible because the insured enjoys the same expected wealth as before when no contribution to settlement is possible, yet there is no variance in wealth associated with the three possible trial outcomes. By Jensen's inequality, the insured's expected utility is thus greater. The caveat relates to the bargaining assumption made above—if all the gains to settlement were extracted from the insured, then the insured would be indifferent between trial and settlement and expected utility would be the same as before. As long as the insured retains some of the gains from settlement, however, the opportunity to contribute to settlement is valuable.

### B. *The Crisci Rule*

As noted, the *Crisci* rule clearly holds liable an insurer who rejects a settlement offer within the policy limits if the expected joint costs of trial exceed the settlement offer. Some controversy exists, however, whether liability will attach when the settlement offer *exceeds* the policy limits but the insured would have been willing to make up the difference.<sup>36</sup> Thus, we might consider two alternatives: "Version 1" of the *Crisci* rule, which applies only when an offer is received by the insurer within the policy limits, and "Version 2," which applies when the amount that the insured is willing to contribute to settlement, when combined with the policy limit, exceeds the settlement demand. Because the analysis of Version 2 is complicated but does not change the key results in any fundamental way, and because it may not reflect the law in many jurisdictions, I relegate a short discussion of it to an Appendix.

The analysis of "Version 1" is strikingly similar to the analysis when the insured does not contribute to settlement. Once again, a critical level of coverage exists, below which the insurer will not receive an offer within the policy limits. On the assumption that the insurer is always willing to contribute its expected losses at trial toward settlement (and does not try to extract any of the insured's risk premium), this critical level of coverage will be identical to its level when the insured does not contribute to settlement. That is, depending on the parameters of the problem, it will equal  $c^*$  or  $L$  as defined in Section II.

For coverage below the critical level, the insured will confront the same premiums and expected utility as under the no duty rule and will make the same contribution to settlement. At or above the critical level of coverage, however, the insurer becomes liable for the entire expected

<sup>36</sup> See sources cited notes 31–32 *supra*.

judgment at trial if it rejects the plaintiff's offer. The insured knows this fact and thus is no longer willing to make a contribution to settlement to avoid litigation. As a consequence, the insurer will accept the plaintiff's settlement offer and pay the entire amount itself. Coverage adjusts optimally, and again it is never in the insured's interest to buy more coverage than the critical amount at which the plaintiff's expected returns to trial—quite possibly below the expected judgment because of the judgment-proof problem—are exactly equal to the coverage level. By purchasing the critical level of coverage and no more, the insured eliminates all risk (settlement occurs and the insured need not contribute) for an actuarially fair premium that in many instances will be less than the expected judgment at trial. And, by logic identical to that in Section I, it follows that the *Crisci* rule can only benefit the insured.

### C. *The Strict Liability Rule*

"Version 1" of a strict liability rule would hold the insurer liable for the full judgment if an offer is rejected within the policy limits, while "Version 2" would hold the insurer liable for rejecting an offer when the sum of the policy limits and the amount that the insured will contribute to settlement exceeds the settlement demand. Either way, the behavior of the insurer will be the same as under the parallel version of the *Crisci* rule, since anytime litigation occurs the insurer must have rejected an offer under conditions that would violate the *Crisci* rule. The parallel to the environment in which the insured does not participate in settlement negotiations is now complete.

## IV. IMPLICATIONS, EXTENSIONS, AND COMPLICATIONS

It is important to distinguish between the effects of alternative rules on the parties and their effects on society as a whole. This concluding section also considers the possible consequences of relaxing some of the assumptions employed in the model.

### A. *Summary of the Welfare Effects in the Model*

Under the stringent simplifying assumptions of the model, the analysis here lends some support to the courts' argument that a duty to settle on the insurer is important to the insured. Absent such a duty, the insurer may elect to litigate when the joint interests of the parties require settlement. The ability of the insured to contribute to settlement ameliorates this problem but does not eliminate it because the transaction costs of participating in settlement negotiations may be great for many insureds,



and for those who can participate cheaply the possible need to do so creates a risk that many of them would prefer to avoid. Of course, if enough insureds recognized these difficulties with the no duty rule at the time of contracting, market incentives to improve on the no duty rule would exist. Yet, it is possible that transaction costs prevent insureds from appreciating all the terms of the bargain adequately *ex ante* and that reputational constraints on insurers are insufficient to dissuade opportunism *ex post*.

Perhaps the most interesting result to emerge from the model is that the gains to the insured from the insurer's duty to settle can be in the nature of allowing the insured to "have his cake and eat it too." Ideally, risk-averse insureds prefer to lay off all financial risk on insurers. When the prospective insured has assets insufficient to pay large judgments, however, the price of doing so often makes full insurance coverage unattractive because the total assets at risk are considerably increased. The insured under the no duty rule then confronts a trade-off between bearing suboptimal risk while externalizing liability or laying off the risk while forfeiting the opportunity to externalize liability. Again, this problem diminishes but is not eliminated if the insured participates in settlement negotiations. Either the *Crisci* rule or a strict liability rule, by contrast, leads to settlement by the insurer, with the insurer bearing the entire cost of settlement, as long as coverage exceeds a critical level. Quite plausibly in many cases, this critical level of coverage will be considerably below the actuarially expected judgment at trial. It is given in general by the level of coverage at which the plaintiff's returns to trial are exactly equal to the policy limit. By purchasing this critical level of coverage, the insured is able to eliminate risk (and a fortiori to eliminate any danger of insolvency) while for many parameter values retaining the capacity to externalize liability.

### *B. Complications and Extensions of the Model*

The simplifying assumptions in the model are numerous and warrant further attention.

*Litigation Costs.* Litigation costs are central to the literature on suit and settlement. Their existence in many models provides the gains from settlement, and their omission from the model above requires further comment.

Because both the plaintiff and the defendant/insurer in reality incur incremental litigation costs if they go to trial, the result in the model that the insurer will litigate under the no duty rule anytime the insured has purchased less than full coverage is plainly too strong. The insured with

only partial coverage would still find in many cases that the insurer settles with the plaintiff, even without a contribution from the defendant, to avoid the defense costs that it would otherwise incur. The fact that the insurer bears defense costs, therefore, may do much to ameliorate the problem that the *Crisci* rule was designed to address. But the fact that the insurer bears defense costs is not enough to eliminate potential conflicts of interest between the insurer and the insured. In this respect, the addition of litigation costs to the model would not change the essence of the problem.

One might suspect that a model with litigation costs would have a larger settlement range, and the familiar indeterminacy about the outcome of bargaining would then become more prominent. If so, the issue addressed by Meurer would resurface, as might his result that policy limits may strengthen the bargaining position of the insured in some cases when the insured cannot be drawn into settlement negotiations. It is noteworthy, however, that Meurer's result can vanish when the insured is potentially judgment proof. The purchase of insurance coverage increases the plaintiff's expected recovery at trial, which offsets at least in part any bargaining advantage created by delegating settlement authority to the insurer. Indeed, the savvy insured can once again exploit the judgment-proof problem by reducing coverage to the degree that the range of settlement outcomes collapses to a point and forces the plaintiff down to exactly the returns to trial. Compounding the problem from the plaintiff's perspective is that the consequence of litigation costs on the plaintiff's side under the American rule is to reduce the plaintiff's best settlement offer. This effect simply enhances the ability of the insured to externalize liability and lowers the critical level of coverage at which the case settles within the policy limits.

To illustrate these points very briefly, return to the numerical example that concluded Section II and assume as did Section II that transaction costs preclude any contribution by the insured to settlement. All assumptions about parameter values in the model remain the same, except assume now that the insurer and the plaintiff will each incur incremental litigation costs of \$10,000 if they go to trial.

Begin with the no duty rule. Previously, with zero litigation costs, the insured could avoid litigation only by purchasing full coverage of \$300,000, for the premium of \$11,100. Here, by contrast, the existence of litigation costs on the plaintiff's side will allow a lower level of coverage to suffice. In particular, observe that at a coverage level of \$240,000, the insurer's expected cost of going to trial is  $1/3 * \$3,000 + 1/3 * \$30,000 + 1/3 * \$240,000 + \$10,000 = \$101,000$ . When the insured has coverage of \$240,000, the entire judgment is paid even if liability is \$300,000 (re-

member, the insured has \$100,000 in assets). Thus, the plaintiff's expected gains from trial are \$111,000 less the \$10,000 litigation cost, or \$101,000. Hence, the plaintiff's best settlement offer at this level of coverage exactly equals the insurer's best offer. And, on the assumption that the insured cannot be dragged in and held up for a contribution, settlement will occur at that figure. The actuarially fair premium will be \$10,100. Without knowing the insured's utility function, there can be no assurance that the insured will purchase this level of coverage, but it is apparent that even under the no duty rule, the insured may be able to eliminate all risk while still externalizing some portion of expected losses. This analysis seems reminiscent of Meurer's but is actually quite different—the no duty rule is not the source of a bargaining advantage, but rather the insured here exploits the ability to select coverage so that the plaintiff can extract none of the gains from settlement.

Now consider the *Crisci* rule. The expression for  $c^*$  in equation (1) supplies the point of departure, as it will again be true that  $\Omega = c^*$ . The right-hand side of equation (1), substituting  $c$  for  $c^*$ , provides the plaintiff's expected returns to trial for coverage values at which the insured is insolvent *except* that the plaintiff's litigation costs must now be deducted. So modified, it again represents the plaintiff's best settlement offer at each coverage level. When this best offer is below the policy limit and the insurer rejects it, the *Crisci* rule will impose liability on the insurer for the entire judgment (joint expected losses at trial for the insurer and the insured have only increased with the addition of litigation costs). The insurer will accept a settlement offer at or below the policy limits, therefore, in preference to this outcome. Hence, the critical value of coverage is now found in accordance with a modified equation (1), the one change being that plaintiff's litigation costs are deducted from the right-hand side. Inserting the assumed parameter values and solving yields a value of coverage equal to \$49,047 (approximately). When the insured purchases this level of coverage, the plaintiff will once again be willing to make a settlement offer exactly equal to the policy limits, and settlement will occur. The actuarially fair premium for this level of coverage is \$4,905.

A comparison of the two examples, with and without litigation costs, suggests that the insured potentially benefits from the presence of litigation costs on the plaintiff's side whatever the legal rule in force, because such costs lower the plaintiff's settlement price. This is perhaps an interesting point on its own, because in models without limited assets the introduction of litigation costs also raises the defendant's best settlement offer, so that there is no reason to think that defendants systematically benefit.

More important for present purposes, the potential gain to the insured from the *Crisci* (or strict liability) rule is readily apparent. By the same logic as before, the *Crisci* rule enables the insured to avoid all risk for a premium considerably below the expected losses associated with the insured's activities. Indeed, recall that the uninsured defendant's expected payment to the plaintiff *ex ante* is \$4,433, and if the uninsured defendant bore \$10,000 litigation costs at trial as well, the expected cost of trial *ex ante* to an uninsured defendant would be \$5,433. Here, for a payment actually below that figure and only modestly above the expected payment to the plaintiff without insurance, the prospective defendant can purchase insurance that guarantees a settlement and that avoids all risk. It seems likely that many insureds will take advantage of this opportunity and equally plausible that in so doing they will be purchasing a level of coverage below what they would purchase under the no duty rule.

In short, the addition of litigation costs to the model would complicate the analysis but seemingly not change it in any fundamental respect. The conflict of interest that the *Crisci* rule was designed to confront remains, as do the most prominent consequences of adopting the *Crisci* rule.

*Disparate Expectations about Litigation and the Choice between the Crisci and Strict Liability Rules.* When the probability distribution of outcomes in litigation is common knowledge and all parties are represented by faithful agents, settlement should always occur. The very existence of litigation suggests the presence of opportunism or strategic behavior by at least one of the parties or their agent or that at least one of the parties has erred in assessing the likely outcome at trial. The latter possibility, and the fact that the probability distribution of outcomes at trial is neither observable by a court nor common knowledge to the parties, introduces a range of complications.

Perhaps most obvious, it supplies one reason why a difference will arise in practice between the *Crisci* rule and a strict liability rule, contrary to the model's suggestion that the two are equivalent. In fact, a familiar argument against a strict liability rule is that it would require insurers to pay the full judgment even when they correctly reject settlement offers as excessive.<sup>37</sup> This argument might be rephrased as follows: Sometimes plaintiffs are overoptimistic about their chances and insist on an amount in settlement that exceeds their properly calculated expected returns to trial. It is in the mutual interest of the insurer and the insured for such offers to be rejected and for litigation to go forward (ignoring the insured's risk aversion). The insurer who proceeds to litigate under the *Crisci* rule is protected from liability to the insured, but the insurer subject to a strict

<sup>37</sup> For example, Abraham, *supra* note 11, at 194–95.

liability rule is not, a fact that is thought to constitute an important reason why the strict liability rule may be undesirable. It is even suggested that a strict liability rule might be tantamount to the abolition of policy limits.<sup>38</sup>

This argument is not altogether without merit, but the problems that would arise under a strict liability rule are also easily exaggerated. The failure of the parties to settle when the plaintiff is more optimistic can reflect either an error by the plaintiff or an error by the defendant. The *Crisci* rule attempts to sort cases in this manner *ex post*, but its ability to do so successfully may be doubted. In fact, the actual outcome of litigation may often provide the best evidence as to who made the mistake *ex ante*, in which case the two rules may tend to collapse to a degree. And, to the extent that they do not, adherence to the *Crisci* rule with its more unpredictable results simply creates yet another opportunity for the formation of disparate expectations that lead to inefficient litigation, this time between the insurer and the insured.

The suggestion that a strict liability regime would do great violence to the parties' ability to set policy limits may also be questioned (assuming *arguendo* that the policy limits are not socially objectionable). Whatever the rule governing the insurer's liability to the insured for an excess judgment, it only applies to the modest proportion of cases in which the plaintiff and the defendant/insurer do not settle *and* in which this decision proves unfortunate for the insured in the end. The efficacy of the policy limit in cases that do settle, or in which the insurer properly litigates against a plaintiff who ultimately loses or ultimately wins little, will survive. If one further imagines that cases in which the insurer litigates and the judgment substantially exceeds the policy limits are frequently due to errors *ex ante* by the insurer, and that liability *ex post* will reduce the incidence of such errors, then the strict liability regime has some genuine appeal.

A possible counterargument to the claim that strict liability may dominate the *Crisci* rule is that a strict liability rule is straightforward to write down and thus could be included in insurance contracts quite easily. Even if insurers behaved opportunistically prior to *Crisci* and similar decisions, the argument might run, they have no reason to eschew the contractual solution of strict liability if it would dominate the existing judicial default option. The difficulty with this argument, of course, is its presumption that enough insureds will appreciate the virtues of a strict liability rule and be willing to pay for it so that the insurers have an incentive to adopt it. If not, the insurer will prefer to retain the *Crisci* formulation even if it would not be jointly optimal.

<sup>38</sup> *Id.*

*Endogenous Accident Probability.* The model ignores the fact that the insured in many instances will have the capacity to influence the probability of the accident through an investment in precautions. From the parties' perspective, this possibility creates a moral hazard. Its significance to them will depend on the importance of precautions to the reduction of expected liability, on the cost of precautions, and on the ability of the insurer to induce jointly optimal precautions through enforceable contractual provisions that require them.<sup>39</sup> It will also depend on the extent to which the insured and the insurer together externalize liability.<sup>40</sup>

Without going into great detail, the introduction of a care decision by the insured seems unlikely to change any of the central conclusions developed above about the *Crisci* rule and its alternatives when the parties can police the moral hazard problem adequately by specifying precautions in the contract—that is, when the insurer can observe or ascertain the insured's care level at acceptable cost. The insurer can then induce the insured to invest in jointly optimal precautions by conditioning coverage on a proper care level or otherwise threatening to penalize the insured for failure to take proper care. Given a jointly optimal care investment by the insured, the problem has the same structure as before except that the care level and the accident probability will become endogenous to the coverage level. The *Crisci* rule or strict liability rule will still have the same potential advantages for the insured, however, by allowing the insured to eliminate risk in the event of an accident while still externalizing a portion of liability.

If the moral hazard problem must be addressed by placing added risk on the insured,<sup>41</sup> the analysis becomes more complicated. Consider, for example, the model in which the insured does not contribute to settlement, and let  $c^*$  equal the critical level of coverage at which the plaintiff's returns to trial are equal to the policy limit. Earlier analysis establishes that the insurer will settle for  $c^*$  under the *Crisci* or strict liability rules and hence that the insured bears no risk when coverage level  $c^*$  has been

<sup>39</sup> See generally Steven Shavell, On Moral Hazard and Insurance, 93 Q. J. Econ. 541 (1979).

<sup>40</sup> See Shavell, *supra* note 18, for a discussion of insurance purchase decisions by potentially judgment-proof insureds who have the capacity to influence accident probabilities and the relation between social and private welfare in such arrangements.

<sup>41</sup> When the behavior subject to moral hazard cannot be regulated adequately by contractual provisions that require the jointly optimal behavior or close to it, it is well known in both the insurance and agency literatures that the optimal contract must compromise risk sharing with incentive maintenance, placing greater risk on the risk-averse actor than would otherwise be desirable.

purchased. But if the insurer cannot police the insured's care level by contract and the insured incurs no liability in the event of an accident, then the incentive to take care vanishes. Premiums for coverage equal to  $c^*$  may thus be quite high, which in turn can induce the insured to purchase lower coverage or no coverage. But once the level of coverage falls below  $c^*$ , the plaintiff is no longer willing to settle within the policy limits, and the choice among the *Crisci* rule and its alternatives will be of no consequence. This analysis suggests that when moral hazard is substantial and difficult for the insurer to control, the imposition of a duty to settle on the insurer may not make much difference if the duty applies only when a settlement offer is forthcoming within the policy limits. One caveat is that if the moral hazard problem is addressed through a sizable *deductible*, the *Crisci* rule or a strict liability rule may function much as before, inducing the insurer to settle when coverage exceeds a critical level, with the insured contributing the deductible as a matter of course.

Yet another set of complications associated with the introduction of a care decision relates to cases in which the insured's liability is only for negligence. In a perfectly functioning negligence regime, insurance for negligence liability might never be purchased—if injurers obey the due care standard there is nothing to insure against, and if they do not because of the judgment-proof problem, insurance may nevertheless be uneconomical because it results in greater internalization of liability.<sup>42</sup> Yet, we know that in practice insurance for negligence liability is common, and indeed most of us carry it. The reason no doubt relates to uncertainty over the due care standard, the possibility of errors in the administration of the due care standard, the possibility of inadvertent negligence, and so on.

Without addressing the matter formally, such departures from an idealized conception of negligence seem likely to generate the equivalent of a strict liability regime with a care decision in many respects. When an accident occurs for any care level, some distribution of liability will remain. The results in the model, appropriately modified in accordance with the nature of the moral hazard problem, may thus have much to say about a negligence regime as well.

*Heterogeneity of Covered Accidents and More States of Nature.* The model assumes that only one "accident" can occur, with three possible

<sup>42</sup> This idea is developed in Shavell, *supra* note 18. The proposition that insurance is not cost effective for a judgment-proof insured who will exercise less than due care without it is developed by Shavell in a model with only one liability level, and it is not obvious (at least to me) that it will generalize to a model with multiple levels of liability and thus an opportunity for the injurer to purchase partial coverage that averts insolvency in some states of nature but not others.

levels of liability. I do not believe that the analysis would change in any important way if the model allowed for an arbitrarily large number of possible liability judgments following the accident. A conflict of interest between the insurer and the insured would still arise under the no duty rule when the insured purchased less than full coverage, and a critical level of coverage would still exist for many parameter values under the *Crisci* and strict liability rules where the plaintiff's returns to trial were equal to the policy limits yet below the expected liability judgment.

A related complication concerns the fact that many insurance policies cover a variety of accidents, each of which has a different probability distribution of liability judgments associated with it. A homeowner's policy covers a licensee's slip and fall, for example, as well as a bonfire that spreads next door. An auto policy covers the fender bender in the parking lot as well as the high-speed head-on collision. The insured's optimization problem whatever the legal rule in question, therefore, is considerably more complex than the model suggests. Nevertheless, the insured still confronts the same essential trade-off under the no duty rule between the coverage level and liability externalization and under the *Crisci* or strict liability rule gains the opportunity to eliminate risk for some accidents while still externalizing liability. This is of benefit even if risk remains for other accidents because no settlement offer within the policy limits will be forthcoming. It seems unlikely that a richer model in this respect would destroy any of the central conclusions, though it would no doubt complicate matters.

### *C. Social Welfare versus the Parties' Welfare*

Even if the *Crisci* rule or a strict liability rule would benefit insureds as the model suggests, the model further implies that the social welfare consequences of these rules are ambiguous. The ambiguity arises because the effect of the alternative rules on the extent of liability externalization is uncertain.

When the insured is potentially judgment proof, a number of familiar inefficiencies can arise under the no duty rule: (a) the insured may bear excessive risk because the purchase of insurance leads to liability internalization; (b) on the assumption that liability judgments correctly measure the social costs caused by the insured's activity, the insured's activity level may be excessive; (c) on the same assumption, the insured's care level may be inadequate; and (d) inefficient litigation may occur. A *Crisci* rule or strict liability rule will tend to induce more settlements, especially when it is otherwise difficult for the insured to participate in settlement, and thus reduce litigation costs. Either rule also tends to shift



risk from insureds to insurers, a socially desirable result other things being equal.

Yet, the insured's choice of a policy limit *may* be greater under the no duty rule. Roughly speaking, when the elimination of risk is more important to the insured than the opportunity to externalize liability, the insured will tend to choose a fairly high level of coverage under the no duty rule, perhaps high enough that any plausible judgment is within the policy limit. A *Crisci* rule or strict liability rule, by contrast, can prod the insurer to settle within the policy limits at lower levels of coverage, and coverage may decline in response. Liability externalization increases accordingly, with a concomitant expansion of the insured's (already excessive) activity level and reduction of the insured's (already inadequate) care level.

Whether and to what extent the *Crisci* rule or a strict liability rule will reduce coverage as an empirical matter is assuredly unclear. The model suggests that either an increase or a decrease in coverage is possible and offers no basis for a prediction as to which effect would dominate. In addition, if information problems are the reason why insurance contracts omit to include jointly optimal terms governing the insurer's discretion in settlement, perhaps the judicial response to conflicts of interest *ex post* will be equally unappreciated by most insureds *ex ante* and thus have no effect on their choice of a policy limit.

Finally, if the *ex ante* consequences of the rules under consideration here are thought to be *de minimis* because of policyholder ignorance, and one views the choice among them solely from the *ex post* perspective, the welfare ambiguity resolves. Care levels and activity levels are no longer at issue, and a duty to settle simply induces the insurer to internalize the costs and benefits of a decision to go to trial. Risk for insureds who do not participate in settlement negotiations will be reduced (here, risk after the occurrence of an accident), as well the possibility of inefficient litigation in such cases. Of course, insurance premiums would rise *ex ante*, but a well-informed insurance customer would find the increase worth it. The case for a strict liability rule instead of the *Crisci* rule also perhaps strengthens if one assumes that most insureds are blissfully ignorant of the conflict of interest *ex ante*, as the provisions of existing contracts then provide no information about the parties' joint interests.

## APPENDIX

### “VERSION 2” OF THE *CRISCI* RULE WHEN THE INSURED WILL CONTRIBUTE TO SETTLEMENT

If coverage is high enough that the insurer receives an offer within the policy limits, the insurer will behave as under Version 1 and accept the offer. The

difference here lies in the behavior of the insurer in response to an offer that exceeds the policy limits.

Under both the no duty rule and Version 1 of the *Crisci* rule, we have assumed that the insurer is always willing to contribute toward settlement an amount equal to its expected losses at trial. When the level of coverage is below  $L_1$  in the model, the insurer’s expected loss at trial in both instances is simply equal to  $c$ , as that amount will be paid to the plaintiff whatever the judgment. Thus, for  $c \leq L_1$ , the insurer is always willing to contribute the policy limits toward settlement, and the insured must make up the difference between the policy limits and the plaintiff’s settlement demand. This will be true whether the applicable rule is the no duty rule, Version 1 of the *Crisci* rule, or Version 2 of the *Crisci* rule.

Consider, however, the case in which coverage exceeds  $L_1$  but is nevertheless below the plaintiff’s expected returns to trial. Here the insurer’s expected losses at trial under either the no duty rule or Version 1 of the *Crisci* rule are less than  $c$ : There is no settlement offer within the policy limits (relevant to Version 1), and hence under either rule the insurer only pays  $L_1 < c$  in the event of the “low” judgment at trial,  $\min [c, L_2]$  in the event of the “moderate” judgment, and  $c$  in the event of the high judgment. The insurer is thus unwilling to contribute the policy limits toward settlement under the no duty rule or Version 1 of the *Crisci* rule but is willing to contribute the policy limits under Version 2 of the *Crisci* rule. The reason is that the insured can simply offer to make up the difference between the plaintiff’s best offer and the policy limits (which the risk-averse insured is surely willing to do), and if the insurer then refuses to settle on those terms, it becomes liable for the entire expected judgment. It will therefore settle at the policy limit for any choice of coverage that exceeds  $L_1$  but is less than the plaintiff’s best offer.

The insured now faces a much modified optimal coverage problem. For coverage below  $L_1$ , the premium is  $\alpha c$  as before. For coverage above  $L_1$  but below the plaintiff’s expected returns to trial  $S_p$ , the insurer will always be forced to settle for the policy limit because the insured can simply make up any difference between the plaintiff’s best offer and the level of coverage. The premium over this range, therefore, is also  $\alpha c$ . Finally, it is plainly not optimal for the insured to buy coverage in excess of the critical point where coverage first equals the plaintiff’s expected returns to trial, for at that level of coverage the insurer will pay the entire settlement amount, and any increase in coverage can only increase the plaintiff’s recovery without eliminating risk. This critical level of coverage will be determined much in the manner as before and will certainly be less than or equal to  $L$ .

As an illustration, consider again the case where  $\Omega = c^*$ . The insured will never want to buy more than this amount of coverage. And, assuming once again that the insured settles on the most favorable terms possible at lower levels of coverage, the insured’s contribution to settlement for coverage below  $c^*$  is the difference between the plaintiff’s returns to trial and the policy limit, call them  $S_i(c)$ . The insured will choose  $c \in [0, c^*]$  to maximize

$$E\{u(\cdot)\} = (1 - \alpha)u(w - \alpha c) + \alpha u[(w - \alpha c - S_i(c))].$$

The only coverage level that can be ruled out in the solution is  $c = c^*$ . Positive coverage is not guaranteed because insurance is not actuarially fair from the insured’s perspective (it increases the plaintiff’s expected recovery with “high” liability, and thus increases the plaintiff’s settlement demand). “Full” coverage at  $c^*$  can be ruled out for the same reason.

Although the details have changed, the basic structure of the solution has not. The insured again reduces risk while paying (in expected terms) less than the full judgment. By comparison to the no duty rule, the insured pays somewhat higher premiums for coverage above  $L_1$ , but the insured's contribution to settlement is reduced by a more than offsetting amount in the event of an accident. The reason why the reduction is more than offsetting is that the premium has risen over part of the range of coverage, and hence for coverage in that range the plaintiff gets slightly less at trial in the event of "high" liability, and the settlement demand falls accordingly. Thus, for some levels of coverage, Version 2 of the *Crisci* rule enables the insured to externalize somewhat more of the expected judgment than the no duty rule. Again, this can only benefit the insured, as can the fact that the insured shifts wealth from the high wealth state (no accident) to the low wealth state (accident) at an actuarially fair price. The magnitude of the gains to the insured are smaller, but their direction remains as before.