7-25-2017

The Forfeiture of Coverage Defenses Rule: An Economic Analysis

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July 25, 2017

Abstract

In liability insurance, the duty to defend is broader than the duty to cover. Thus it is possible that an insurer that has a duty to defend a suit may not have the duty to cover the policyholder's liabilities in the suit. However, if the penalty for a breach of the duty to defend is limited to actual legal costs spent by the defendant, the insurer may have an incentive to refuse to defend, even when the duty to defend is clear. This occurs because the insurer will not internalize the consequences of an inadequate defense when it ultimately can avoid covering the claim. If the penalty for a breach of the duty to defend also includes a forfeiture of the right to contest coverage of the claim, the insurer will never refuse to defend when the duty to defend is clear, but such a penalty could induce an insurer to defend even when it has a good legal argument against the duty to defend. We argue that tying a forfeiture of the right to assert any defense of coverage to an unreasonable refusal to defend can give an insurer incentives to internalize the cost of an inadequate defense while allowing the insurer to make reasonable legal arguments challenging a duty to defend.

*We thank conference participants at Northwestern University, The Society of Industrial and Organizational Economics(2016) and the American Law and Economics Association (2017). All errors are our own.

1 Introduction

Notwithstanding the importance of liability insurance to the development and financing of tort liability in the United States, there are significant gaps between the tort liabilities that defendants face and the liability insurance that is available.[1] Similar gaps exist in noncommercial liability insurance, such as that provided in auto and homeowner's policies. Every liability insurance policy offered on the U.S. liability insurance market provides protection against only a defined set of liabilities and for only a defined period of time. Even a party who consistently purchases every type of available liability insurance will be unable to find coverage for all potential tort liabilities. Some liabilities are uninsurable, because of moral hazard, adverse selection, or other market imperfections. Other liabilities, though insurable in theory, turn out not to be covered in practice, because of liability insurance market segmentation or exaggerated concerns about moral hazard or adverse selection. In such cases, certain claims simply fall into the gaps that exist within the patchwork of available policies. Moreover, some liabilities are entirely insurable; however, because of the segmented nature of the liability insurance market, it may not be clear which particular claims are covered under which particular policy.[2]

For all these reasons, it is surprisingly common for there to be uncertainty about whether a particular liability insurance policy provides coverage for a particular claim. This uncertainty presents especially significant practical and legal problems when the policy also provides defense coverage, meaning that the insurance company has promised not only to pay the damages for which the defendant may be liable, but also to provide a lawyer to defend the insured. When a liability insurance policy provides defense coverage —as most liability insurance policies sold in the U.S. do— the insurance company must make a decision at the very outset of the case about whether to provide that defense.[3] However, at that early point in the development of the case, it may be impossible to obtain all the information needed to determine with certainty whether the insurer is obligated to pay a judgment rendered against the insured in the case.

U.S. liability insurance law has rules that instruct insurers about how to act in the face of this uncertainty and that provide incentives for insurers to follow those instructions. In general, these rules reflect the common understanding that liability insurance is a service purchased by risk-averse individuals to reduce uncertainty.

[1] See, for example, Abraham [2001] p.86 ("[S]ome of the most important developments in CGL insurance over the last two decades have involved the placement of limitations on the scope of coverage provided by this form of insurance. Special-purpose forms of insurance that exist alongside CGL coverage have not completely filled the resulting gaps in insurance protection").

[2] For a discussion of "market segmentation exclusions" in liability insurance policies, see generally Baker and Logue [2017]

[3] For a general discussion of the "duty to defend" in most liability insurance policies, see Jerry & Richmond [2012], pp 792-832 and Hall [2015]

Notwithstanding the consistency between this common understanding and the economics of insurance, however, these rules have developed through a common law process that has only rarely taken economic analysis into account and, with one exception, has never applied insights from a formal economic model.[4]

In this paper we develop an economic model to analyze an important and controversial legal rule —the forfeiture-of-coverage-defenses rule— that is commonly understood to increase insurers' incentives to defend their insureds in situations in which there is uncertainty about whether the insurer would be obligated to pay a judgment in the case.[5] Under the forfeiture-of-coverage-defenses rule, an insurance company that does not defend its insured when it should have must pay any judgment entered against the insured, even if the insurer would not have had to pay the judgment had it properly defended the claim.[6] The rule is called the 'forfeiture-of-coverage-defenses rule' because it means that an insurer that wrongly refuses to defend an insured forfeits its 'coverage defenses,' which is the term used in the insurance trade for any good reason for not paying a judgment. The forfeiture-of-coverage-defenses rule is an extra-compensatory remedy that goes beyond the remedies generally available in a breach of contract case, which would include defense cause and other reliance damages. Thus the rule is commonly understood to increase insurers' incentive to defend their insureds.

This model and our analysis are particularly timely because the forfeiture-of-coverage-defenses rule is presently under close public examination in the drafting of the Restatement of the Law of Liability Insurance. Restatements are authoritative statements of the law prepared by prominent legal scholars through an iterative, quasi-public process that includes substantial input from judges, legal academics, and practicing lawyers, and then formally adopted (and in some cases amended) by the American Law Institute (ALI). The ALI is a 100-year-old organization with a strong track record of influential law reform projects that harmonize and improve the inconsistent and sometimes fractious state-based law in the United States.

This paper is significant to the ALI's restatements in three ways. First, it provides an economically rigorous justification for the limited forfeiture-of-coverage-defenses

[4]The exception we have in mind is the application of the disregard the limit rule to questions of bad faith refusal to settle. For an example of use of a simple model, see *Transport Ins. Co. v. Post Express Co.*, 138 F. 3d 1189, 1192.(7th Cir. 1998)

[5]See Nardoni[2017] "Courts in several states apply a strict [fofeiture-of-coverage-defenses rule to enforce the duty to defend found in most liability insurance policies. This rule encourages insurers to honor their defense obligations by extending liability for breaching a duty to defend beyond the standard compensatory damages of the insured?s costs of defense", p53). For additional discussion of the rule, see Windt[2015], Ingram [1995] and Ostrager and Newman[2017]

[6]This is the rule in a substantial minority of jurisdictions. Restatement of the Law: Liability Insurance, Tentative Draft 2017 (RLLI), § 19, Comment c ("Courts in a respectable minority of states have have held that any time that an insurer refuses to defend a suit in violation of its duty to defend, the insurer must pay for a judgment entered in, or a reasonable settlement of, the suit, even if the insurer had a reasonable basis for declining to defend.")

rule adopted in the Restatement in the Law of Liability Insurance. Second, it is the first collaboration between Reporters of a Restatement and an economic theorist to develop a model to deepen the analysis of a legal rule that is in the process of adoption in the Restatement drafting process. Third, it provides an illustration of the utility of formal economic modeling to this kind of law reform effort.

We believe we are the first to apply formal economic modeling to an analysis of an insurer's duty to defend. Several papers, such as Friedman[2017], Sykes[1994], Logue[1992] and Meurer[1992] have used economic models to address the related problem of conflict between insurers and policyholders regarding the desirability of accepting settlement offers. More broadly, Dana and Spier[1993] focuses on contractual mechansms to minimize conflict of interest between attorneys and clients. Avraham and Wickelgren[2014] models interactions between third party litigitation financiers and litigants, but focuses on the private information.

To evaluate the proposed rule, we construct a formal model to examine how the rule performs under two types of uncertainty: factual uncertainty and legal uncertainty. Factual uncertainty is uncertainty relating to the actual circumstances of the loss in the underlying case. As an example there may be factual uncertainty as to whether the plaintiff's harm was caused intentionally or negligently by the policyholder. Legal uncertainty, on the other hand, involves the interpretation of the insurance contract or background legal principles that define the insurer's duties under the insurance contract. An example of legal uncertainty is doubt as to whether an absolute exclusion of harm due to pollution applies to a lead paint poisoning claim.[7]

We examine these two types of uncertainty separately because factual uncertainty typically leads to uncertainty only about coverage of judgments, but not about whether a defense should be provided. Insurers are generally obligated to provide a legal defense for the policyholder if the only type of uncertainty is factual uncertainty. As held by the California Court in *Gray v. Zurich Insurance Co.*, 65 Cal.2d 263 (1966), a "carrier must defend a suit which potentially seeks damages within the coverage of the policy." Many states hold that this applies even if the complaint alleges facts that, taken alone, would imply no coverage, so long as the insurer knows or reasonably should know of possible facts outside the complaint that would imply coverage and that "a reasonable insurer would regard as an actual or potential basis for all or part of the legal action."[8] However, if the factual uncertainty is eventually resolved in favor of the insurer – for example, it is ultimately determined that there is no coverage, because the harm was intentional–, the insurer need not cover the

[7]In some instances, the distinction between legal and factual uncertainty can become blurred. For example, if the question is whether a given defendant's behavior, which is known, constituted intentional wrongdoing or mere negligence may depend on the resolution of legal issues, such as the definition of negligence as contrasted with intentional harm. In such a case, the negligence/intentionality question would give rise to legal uncertainty. Factual uncertainty, again, has to do with what the circumstances were that gave rise to the claim in the underlying case.

[8]RLLI, § 13(b)(2) and comment b.

judgment. In contrast legal uncertainty leads to uncertainty about whether the policy even applies to the facts as alleged, implying uncertainty about both the duty to indemnify (i.e. to provide coverage for judgments) and the duty to defend.

We construct a formal model in which in an insurer and policyholder face a claim where there is factual uncertainty regarding the duty to indemnify. At first we assume that there is no legal uncertainty regarding the duty to defend and examine the circumstances under which an insurer may nevertheless refuse to defend under alternative legal rules. We find that, under these assumptions, when there is no forfeiture-of-coverage-defenses rule, an insurer may have an incentive to refuse to defend when there is substantial doubt, arising solely out of factual uncertainty, about the duty to indemnify. Because the policyholder's expenditure on defense may be limited by liquidity constraints, an insurer might be able to reduce its expected defense costs by refusing to defend, even if it must eventually reimburse the policyholder. The disadvantage to this strategy is that it reduces the quality of defense, and increases the expected liability of the policyholder. When the insurer thinks there is a good chance that it might ultimately not be required to indemnify, it will not fully internalize the effect of lower defense quality on expected liability. Thus even if an insurer is certain that it has a duty to defend, it may intentionally breach that duty when the only penalty is that it must eventually reimburse the out of pocket defense costs.

On the other hand, with a forfeiture-of-coverage-defenses rule (henceforth forfeiture rule), the insurer will never intentionally breach the duty to defend. By refusing to defend, the insurer knows that it will eventually reimburse defense costs and, because of the forfeiture rule, will also be required to indemnify the insured for any liability. As long as the insurer can defend the policyholder more efficiently than the policyholder can defend himself, it has nothing to gain by refusing to defend, since the insurer is liable for any judgment.

We next introduce the possibility of legal uncertainty. For the sake of simplicity we assume that, if the legal uncertainty is resolved in favor of the policyholder, there is a duty both to defend and to indemnify, whereas, if it is resolved in favor of the insurer, there is no duty to defend or indemnify. Looking at a situation of purely legal uncertainty, we find that there is no difference between a forfeiture rule and a no forfeiture rule, simply because there is never a case where there is a duty to defend but no duty to indemnify. Thus, the forfeiture rule simply requires the insurer to forfeit a coverage defense that would not be successful anyway.

Turning to a scenario of mixed legal and factual uncertainty, we find that the forfeiture rule may induce the insurer to defend even when there is a considerable likelihood it may not have a legal duty to do so, a situation we refer to as over-deterrence.[9] The intuition is that, in cases in which the legal uncertainty ends up being resolved in favor of the policyholder, so, in retrospect, there was a duty to

[9]We will more precisely define over-deterrence in section 2.3

defend, but the factual uncertainty is ultimately resolved in favor of the insurer, so, absent forfeiture, there is no duty to indemnify, the forfeiture rule imposes a substantial cost on the insurer. On the other hand, in the absence of a forfeiture rule, if there is substantial factual uncertainty, the insurer may benefit from refusing to defend and thus lowering defense costs, knowing that it will be able to assert coverage defenses and likely avoid paying for any judgment.

Under the forfeiture rule, if the insurer is able to costlessly resolve the legal uncertainty before it makes a decision to defend, it always has an incentive to do so. If the legal uncertainty will be ultimately resolved in the favor of the policyholder, the insurer prefers to defend, rather than be forced to indemnify and reimburse a policyholder who had to rely on his own low quality defense, by which we mean a defense that is more likely (than the insurer-provided defense) to result in a judgment against the insured in the underlying case. Of course, the insurer would prefer not to defend a case when it had no duty to defend or cover. To the degree that it is possible to resolve legal questions before it is necessary to mount a defense to the original claim, the over-deterrence from the forfeiture rule can be ameliorated. [10] Recognizing that it may not always be possible to do this, it may be desirable to limit the application of the forfeiture rule.

The Draft Restatement of the Law of Liability Insurance limits the forfeiture rule by applying it only when an insurer 'lacks a reasonable basis for its failure to defend a legal action.'[11] The comments clarify that an insurer that refuses to defend 'based on a reasonable legal theory does not forfeit its other coverage defenses.'[12] Our analysis can be used to support a more formal conception of a 'reasonable legal theory' as one that implies enough uncertainty to reasonably motivate a refusal to defend in the absence of any factual uncertainty. The goal is to use the forfeiture rule to ensure that the insurer does not use the pretense of legal uncertainty in a case where it believes it should defend, but will probably escape the consequences of a poor defense. Our formal model implies that the degree of legal uncertainty that can make a refusal to defend reasonable depends partially on policyholders' ability to provide their own defense. If policyholders can easily and efficiently provide their own defense, it may be reasonable for the insurer to refuse to defend when there is only a small likelihood that its legal theory will be held valid. On the other hand, if policyholders cannot effectively defend themselves, it will only be reasonable to refuse to defend if the insurer's legal theory is more likely to be valid. Thus our formal microeconomic analysis can be used both to examine the justification of the proposed rule in the Draft Restatement and to suggest refinement in its application.

[10]This implies an efficiency benefit to an early resolution of coverage uncertainty, which is the counter to the practice in some jurisdictions of delaying the resolution of coverage until after the resolution of the underlying tort action.

[11]Restatement Tent. Draft No. 2 §19 (2)

[12]Restatement Tent Draft No. 2 §19 (2)

The next section of this paper presents a model with both factual and legal uncertainty and derives our formal results. The following section considers the application of the model to the proposed rule and discusses the limitations of our approach. The final section concludes.

2 Model

2.1 Purely Factual Uncertainty

In period 0, an injury occurs and causes harm D to a plaintiff. The plaintiff has a tort claim against the policyholder. Initially, we assume that the claim against the policyholder is such that there is no question about the duty to defend, but there is a factual question regarding the duty to indemnify. For example, the complaint alleges both negligence and intentionally caused harm. Therefore, there is a clear duty to defend, though, depending on how the facts turn out, perhaps no duty to indemnify the judgment or settlement. We assume the ex-ante likelihood that the facts will imply a duty to indemnify is $\lambda < 1$.

In period 1, the insurer chooses whether or not to defend, and if so, how much to spend on defense. In this model we suppose that an insurance company has several advantages in providing a defense. The insurance company can more effectively defend against the plaintiff. If the insurer provides a defense, the likelihood of liability is $p_G(x) > 0$, where x is the amount the insurer spends on the defense. We assume that defense expenditures are effective in decreasing the likelihood of liability, but with decreasing returns, so $p'_G(x) < 0$, and $p''_G(x) > 0$. We also assume that $p'_G(0) < \frac{1}{D}$, so some defense expenditures always reduce total liability cost. Finally we assume that the court is able to monitor the insurer, so the insurer always invests in defense as if it bears the entire risk. That is to say, when the insurer defends, it chooses expenditure $x^* > 0$ such that x^* minimizes $p_G(x)D + x$. We discuss the implications of relaxing this assumption in section3.

If the insurer refuses to defend, the policyholder is left to her own devices regarding a lawyer. We assume that due to liquidity constraints, or other such issues, the policyholder can spend no more than x_0 on defense. We also assume that the legal representation hired by the policyholder is not as effective as would be provided by the insurer. So, if the policyholder arranges the defense and spends x, the likelihood of liability is $p_B(x) > p_G(x)$. For now, we assume that the policyholder is aware that she is likely to prevail on her claim for breach of duty to defend, so she expects to be reimbursed for legal expenditures. Therefore she will spend as much as possible on her defense, so she will spend x_0. We make the additional assumption that x_0 is low enough so that $p_B(x_0) > p_G(x*)$, so ultimately, the policyholder is more likely to be found liable if she defends herself than if the insurer defends.

In period 2 the trial occurs, and the policyholder is found liable (with probability

$p_G(x^*)$ or $p_B(x_0)$, depending on whether the insurer defends or not) or not liable with the complementary probability. Simultaneously, facts are revealed that the accident is covered. For now, we assume that the probability of coverage is independent of legal expenditure or liability.

In period 3, if the insurer defends, it pays the claim if it is covered and the policyholder is liable. If the insurer refused to defend, the policyholder sues for violation of the duty to defend. Depending on the legal regime and the court's evaluation of the reasonableness of the insurer's refusal to defend, the court can respond in three ways to the policyholder's claim. It can rule there is no duty to defend, in which case the insurer faces no liability for either legal costs or damages. If the court finds there was a duty to defend, the consequences depend on whether the rule is Forfeiture (F), or No Forfeiture (NF). Under F, if the insurer is found to have violated the duty to defend, the insurer must reimburse the policyholder the defense costs (x_0), and must also forfeit its right to assert a coverage defense. Thus the insurer must indemnify the defendant for any liability, regardless of whether of whether the facts would imply coverage. Under NF, if the insurer is found to have violated the duty to defend, the insurer must reimburse the policyholder the defense costs (x_0) as before. Under NF, however, the insurer must indemnify only if the facts imply coverage.

As noted above, the likelihood that the trial will lead to facts that imply coverage is $\lambda > 0$, so given liability, the complementary probability of no coverage is $1 - \lambda$. Since an insurer has a duty to defend a case whenever there is a plausible set of facts that would lead to coverage, under purely factual uncertainty there is always a duty to defend, but there is not always a duty to indemnify.

Under factual uncertainty, we consider two possible legal regimes, F, and NF, where the penalty for violating the duty to defend is forfeiture and no forfeiture, respectively. Thus under both regimes, if the insurer defends, the insurer's total cost for the claim is

$$C_I^D = x^* + \lambda p_G(x^*)D$$

Under NF, if the insurer refuses to defend when it had a duty to defend, its total cost is

$$C_I^{NF} = x_0 + \lambda p_B(x_0)D$$

Under F, if the insurer refuses to defend when it had the duty, it must pay any judgment against the policyholder regardless of whether the facts imply coverage, so total cost is

$$C_I^F = x_0 + p_B(x_0)D$$

Our first result is that if the insurer expects the policyholder to spend more in legal costs then the insurer would spend if it provided the defense itself, the insurer will always honor its duty to defend.

Lemma 1 *If $x_0 > x^*$, then the insurer will always honor its duty to defend under both F and NF.*

Proof.

Under NF, if the insurer refuses to defend it expects to pay $x_0 + p_B(x_0)\lambda D$, and if the insurer defends it expects to pay $x^* + p_G(x_0)\lambda D$. Note that $p_B(x_0)D + x_0 > p_G(x_0)D + x_0 \geq p_G(x^*, q)D + x^*$ Since $p_B(x_0)D + x_0 > p_G(x^*)D + x^*$ and $x_0 > x^*$ then for any $\lambda \in [0, 1]$, $p_B(x_0)\lambda D + x_0 > p_G(x^*)\lambda D + x^*$. Thus, under NF it costs the insurer less when it chooses to defend. Since $p_B(x_0)D + x_0 > p_G(x^*)D + x^* > p_G(x^*)\lambda D + x^*$, the insurer defends under F as well. ■

The insurer is more efficient in providing a legal defense than the policy holder. If the insurer knows that it will ultimately be responsible for legal costs when it refuses to defend, then it would never wish to spend more than is optimal in order to get less effective representation. We do note however that this result assumes that the policyholder will always successfully sue when the insurer refuses to defend. We believe that taking into account the possibility that the insurer could 'get away with it' would affect our results by introducing the possibility that an insurer would refuse to defend even if the insurer is more efficient in providing a defense. Turning to the case where the insurer can save on defense costs by refusing to defend, we have the following result.

Proposition 1 *Under NF, when claims are sufficiently unlikely to be covered, the insurer may have an incentive to wrongfully refuse to defend. Suppose $x_0 < x^*$, then under NF there is some threshold degree of factual uncertainty ($\tilde{\lambda} > 0$), such that if $\lambda < \tilde{\lambda}$ the insurer will refuse to defend, even when it is certain to be found in breach of its duty to defend.*

Proof. Suppose that $x_0 < x^*$, then under NF the insurer's net savings from refusing to defend is $x^* - x_0 - (p_B(x^0) - p_G(x^0))\lambda D$. Define $\tilde{\lambda} = \frac{x^* - x_0}{(p_B(x^0) - p_G(x^0))D}$. If $\lambda < \tilde{\lambda}$, then $x^* - x_0 - (p_B(x^0) - p_G(x^0))\lambda D > 0$, and the insurer prefers to refuse to defend under NF ■

Under NF, when $x_0 < x^*$, the insurer's only drawback from refusing to defend is the increased likelihood that the policyholder is held liable, which leads to an increased likelihood that the insurer must indemnify. When λ is low, so coverage is unlikely, the insurer bears a smaller portion of this costs, and is more likely to refuse to defend.

The forfeiture rule, however forces the insurer to bear the cost of greater expected liability in the underlying suit, and we have the following result.

Proposition 2 *Under F, the insurer will always defend if it knows it has a duty to do so under purely factual uncertainty.*

Proof. Under F, the insurer pays $p_G(x^*)\lambda D + x^*$ if it defends, and $p_B(x_0)\lambda D + x_0$ if it refuses to defend. Note that $p_B(x_0)D + x_0 > p_G(x_0)D + x_0$. Since x^* minimizes $p_G(x, q)D + x$, we know that $p_G(x_0)D + x_0 > p_G(x^*)D + x^*$. Finally note that since $\lambda < 1$, $p_G(x^*, q)D + x^* > p_G(x^*, q)\lambda D + x^*$, so$p_B(x_0)\lambda D + x_0 > p_G(x^*)\lambda D + x^*$. and the insurer prefers to defend. ■

Thus we have seen that when there is a duty to defend, but there may not be a duty to indemnify, a rule of NF may not provide enough incentive to honor the duty to defend. A rule of F will always provide the incentives to honor the duty. One might worry that the F rule can provide too much incentive to defend, but because the assumption of purely factual uncertainty implies that there is always a duty to defend, a model of purely factual uncertainty cannot evaluate the policy consequences of such excess incentives. We now turn towards a model of purely legal uncertainty, under which there may not be a duty to defend

2.2 Purely legal uncertainty

We model purely legal uncertainty as the presence of uncertainty regarding the meaning of the insurance contract and the absence of uncertainty regarding factual basis of coverage. Because there is legal uncertainty regarding the insurance contract, it is no longer certain that there is a duty to defend. For example, imagine a case in which the facts clearly establish the existence of lead poisoning, so the only coverage uncertainty arises out of whether lead poisoning falls inside or outside of the absolute pollution exclusion. Note that there still is uncertainty about liability, perhaps because the source of the poisoning is unclear, so the expenditure and quality of the defense of the underlying case is relevant to the insurer until the legal uncertainty has been resolved. However, because there is no factual uncertainty, the resolution of questions regarding coverage and duty to defend both turn on the meaning of the contract, so a finding that the contract does not cover the claim implies there is also no duty to defend. Thus, in our example, if the exclusion applies to lead poisoning, there would be no duty to cove *or* defend

Let us refer to the likelihood that there is a legal duty to defend as γ. Under purely legal uncertainty, if there is a duty to defend, there is also a duty to indemnify, so the likelihood of the a duty to indemnify is also γ. We turn to the incentives under both F, and NF, where the penalty for violating the duty to defend is forfeiture and no forfeiture, respectively. Thus under either regime, if the insurer defends, but then challenges its duty to indemnify, the insurer's total cost for the claim is

$$C_I^D = x^* + p_G(x^*)\gamma D$$

Under NF, if the insurer refuses to defend when it had a duty to defend, its total cost is

$$C_I^{NF} = \gamma(x_0 + p_B(x_0)\lambda D)$$

Under F, if the insurer refuses to defend when it had the duty, it must pay any judgment against the policyholder regardless of whether the facts imply coverage, so total cost is

$$C_I^F = \gamma(x_0 + p_B(x_0)D)$$

Note that since $\lambda = 1$ under pure legal uncertainty, the payoffs from refusing to defend under both regimes are the same. This occurs because the forfeiture rule has no bite under purely legal uncertainty. Because there are no circumstances under which the insurer has a duty to defend, but no duty to indemnify, the insurer does not forfeit anything of value by refusing to defend.

Under either regime, the insurer will refuse to defend if

$$(1-\gamma)x^* + \gamma(x^* - x_0) > \gamma D(p_B(x_0) - p_G(x^*))$$

The insurer is balancing the likelihood that it avoids legal costs (either because it has no duty to defend, or because the policyholder spends less on defense than the insurer would) against the increased likelihood that the policy holder will be liable, and will be covered under the insurance. We note that under purely legal uncertainty regarding the duty to defend, the insurer will always defend if the likelihood of an actual duty to defend is high enough. Because the duty to cover and duty to defend depend on the interpretation in the same way, the insurer is always absorbs the increased likelihood of liability due to inadequate defense if is found to have violated its duty to defend.

Lemma 2 *Under purely legal uncertainty, for any x^* and x_0 >0, there is a $\gamma_L^* = \frac{x^*}{D(p_B(x_0)-p_G(x^*))+x_0} < 1$ such that the insurer will honor its duty to defend if, and only if $\gamma \geq \gamma_L^*$.*

Proof. Solving $(1-\gamma_L^*)x^* + \gamma_L^*(x^* - x_0) = \gamma_L^* D(p_B(x_0) - p_G(x^*))$ for γ_L^* , we have $\gamma_L^* = \frac{x^*}{D(p_B(x_0)-p_G(x^*))+x_0}$ We note that $\frac{d}{d\gamma}x^* + p_G(x^*)\gamma D < \frac{d}{d\gamma}\gamma(x_0 + p_B(x_0)D)$, so if $\gamma > \gamma_L^*$, then $x^* + p_G(x^*)\gamma D < \gamma(x_0 + p_B(x_0)D)$, and the insurer prefers to defend. ■

We also note that if γ is low enough, the insurer may refuse to defend even if $x_0 > x^*$.

A full treatment of when it would be socially optimal for the insurer to refuse to defend is beyond the scope of this paper. It is worth noting that when the difference between p_B and p_G is greater, so that it is more costly to the defense side for the insurer to refuse to defend, the insurer will be more likely to defend. Furthermore, the insurer is less likely to defend when it is less likely that a proper interpretation of the contract actually imposes the duty.

We might think that this is socially desirable. If there is enough uncertainty as to whether the policy provides a duty to defend so that the insurer is willing to run the risks of more liability and possible more expenditure on defense, then it might be

worth bringing the question of the insurer's duty to defend before the court because the resolution of that uncertainty has positive spillovers for future parties to insurance contracts by clarifying the meaning of disputed clauses in insurance policies.

2.3 Mixed Uncertainty

So far we have shown that under purely factual uncertainty, the forfeiture rule may be necessary to deter an insurer from intentionally disregarding a duty to defend. If there is purely legal uncertainty, the forfeiture rule has no effect at all, so it would not raise issues of over-deterrence.

However, there might be situations in which there is at least some uncertainty about the exact interpretation of an insurance policy, and there is also some uncertainty about the facts underlying the claim. In particular, we might imagine that the legal question is resolved in favor of the policy holder, so that there is a duty to defend and a possibility of coverage, yet when all the factual uncertainty is resolved, the actual facts imply the claim is not covered.

An example of this mixed uncertainty could arise in response to a lawsuit by a patient claiming damages from a sexual relationship with a psychiatrist. The insurer might attempt to disavow a duty to defend or cover, claiming that entering into the relationship implies an intent to harm as a matter of law. If this is the case, the insurer has no duty to either defend or to indemnify. If a court finds that intent to harm cannot be found as a matter of law, then the insurer has a duty to defend but could still prevail on the coverage question if the facts revealed at trial indicate the psychiatrist actually had an intent to harm.

We model mixed uncertainty by assuming that the likelihood that the court finds in favor of the policyholder on the legal question of a duty to defend is γ. If the court finds for the policy holder on the legal question, the likelihood that the facts imply a duty to defend so that the policy holder would prevail on the factual question of coverage is given by λ. Thus the likelihood there is a duty to cover is $\gamma\lambda$, Under mixed uncertainty, the cost to an insurer that defends the claim, yet contests its duty to indemnify on both legal and factual grounds is:

$$C_I^D = x^* + p_G(x^*)\gamma\lambda D$$

Under the No Forfeiture regime, the expected cost to an insurer who refuses to defend is thus

$$C_I^{NF} = \gamma(x_0 + p_B(x_0)\lambda D)$$

Under the Forfeiture regime, the expected cost is

$$C_I^F = \gamma(x_0 + p_B(x_0)D)$$

Lemma 3 *Under mixed uncertainty and F, the threshold γ^*_{MF}, the threshold strength of the legal claim for a duty to defend that would cause an insurer to honor its duty to defend is lower than under pure legal uncertainty.*

Proof. At the threshold γ^*_F, $C^F_I = C^D_I$. Solving for γ^*_F, we have

$$x^* + p_G(x^*)\gamma^*_F \lambda D = \gamma^*_F(x_0 + p_B(x_0)D)$$

$$\gamma^*_F(x_0 + p_B(x_0)D - p_G(x^*)\lambda D) = x^*$$

$$\gamma^*_F = \frac{x^*}{x_0 + p_B(x_0)D - p_G(x^*)\lambda D}$$

Note that this is increasing in λ, so it will be lower in the presence of factual uncertainty. ■

Under the forfeiture rule, the existence of factual uncertainty makes the insurer less likely to refuse to defend, because by refusing to defend, the insurer loses the opportunity to contest coverage on factual grounds. By refusing to defend, the insurer not only increases the likelihood that the policyholder is held liable, but conditional on the policyholder being found liable, increases the likelihood that the insurer must cover the loss.

Lemma 4 *Under mixed uncertainty and NF, the threshold γ^*_{NF}, the threshold strength of the legal claim for a duty to defend that would cause an insurer to honor its duty to defend is higher than under pure legal uncertainty.*

Proof. At the threshold γ^*_{NF}, $C^{NF}_I = C^D_I$. Solving for γ^*_{NF}, we have

$$x^* + p_G(x^*)\gamma^*_{NF} \lambda D = \gamma^*_{NF}(x_0 + p_B(x_0)\lambda D)$$

$$\gamma^*_{NF}(x_0 + p_B(x_0)\lambda D - p_G(x^*)\lambda D) = x^*$$

$$\gamma^*_{NF} = \frac{x^*}{(x_0 + p_B(x_0)\lambda D - p_G(x^*)\lambda D)}$$

So $\gamma^*_{NF} < \gamma^*_F$ iff $p_B(x_0)\lambda D_0$ If $p_B(x_0) > p_G(x^*)$, then $\frac{x^*}{(x_0+p_B(x_0)\lambda D - p_G(x^*)\lambda D)} > \frac{x^*}{(x_0+p_B(x_0)D - p_G(x^*)D)}$ ■

Under the no forfeiture rule, factual uncertainty decreases the degree to which the insurer is affected by the downside of refusing to defend. It is a trivial corollary of Proposition 1, that under the No Forfeiture rule, if $x_0 < x^*$, and $\lambda < 1$, there are some cases where $\gamma^*_{NF} \geq 1$, so that the insurer would refuse to defend even if it was sure the legal argument would fail.

It is under mixed uncertainty when the trade-offs inherent in the Forfeiture rule are most stark. In particular, adding factual uncertainty as to whether a claim is

covered can lead to over-deterrence under the Forfeiture rule and under-deterrence under the No Forfeiture rule. Both of these effects are strongest when λ is low, so the trial is likely to reveal a factual basis for denying coverage. When λ is low, Forfeiture is very likely to force an insurer who refuses to defend to cover a claim it would have otherwise avoided, so over-deterrence is strong, but under No Forfeiture, an insurer might see little downside to refusing to defend, because it is unlikely to pay any eventual verdict.

To deal with this we propose a Limited Forfeiture (LF) rule, which would not apply Forfeiture as a sanction for refusal to defend if the refusal was made in response to sufficient legal uncertainty. Our formal definition is as follows

Definition 1 *Legal uncertainty is sufficient if that legal uncertainty would motivate an insurer to refuse to defend a claim in the absence of any factual uncertainty. Mathematically, an insurer is said to have sufficient legal uncertainty if* $\gamma \leq \gamma^{\dagger} = \frac{x^*}{D(p_B(x_0)-p_G(x^*))+x_0}$.

When a rule causes the insurer to defend in the presence of sufficient legal uncertainty, we refer to this as over-deterrence. When the rule causes the insurer to refuse to defend in the absence of sufficient legal uncertainty, we refer to that as under-deterrence.

This Limited Forfeiture rule has negligence type features, in that it only applies the forfeiture penalty if the insurer was in some way unreasonable. If there was sufficient doubt regarding the duty to defend that a reasonable insurer would refuse to defend in the absence of a fact-based coverage defense, the insurer would still be allowed to assert fact-based coverage defenses, even if the court finds a duty to defend. Thus, the only cost of refusal to defend motivated by a sufficient legal argument is that if the defense fails, and the facts ultimately imply coverage, the quality of the defense was lower. This standard implicitly requires the insurer to consider the entire net cost of a lower quality defense, to both the insurer and the policy holder, as a cost of refusing to defend. If the likelihood that the insurer does not have a duty to defend multiplied by insurer's defense costs exceeds the cost of a lower quality defense, then, by this standard the insurer has a reasonable basis for refusing to defend.

Proposition 3 *Under the Limited Forfeiture rule, there will be neither over-deterrence nor under-deterrence; in the presence of mixed uncertainty the insurer will defend if* $\gamma > \gamma^{\dagger}$*, and refuse to if* $\gamma < \gamma^{\dagger}$*, regardless of the degree of factual uncertainty (*λ*).*

Proof.

Under Limited Forfeiture in the presence of mixed uncertainty, the cost to an insurer that refuses to defend is a piecewise function of γ, with a discontinuity at $\gamma^{\dagger}$

$$C_I^{LF} = \begin{cases} \gamma(x_0 + \lambda p_B(x_0)D) & \gamma \leq \gamma^{\dagger} \\ \gamma(x_0 + p_B(x_0)D) & \gamma > \gamma^{\dagger} \end{cases}$$

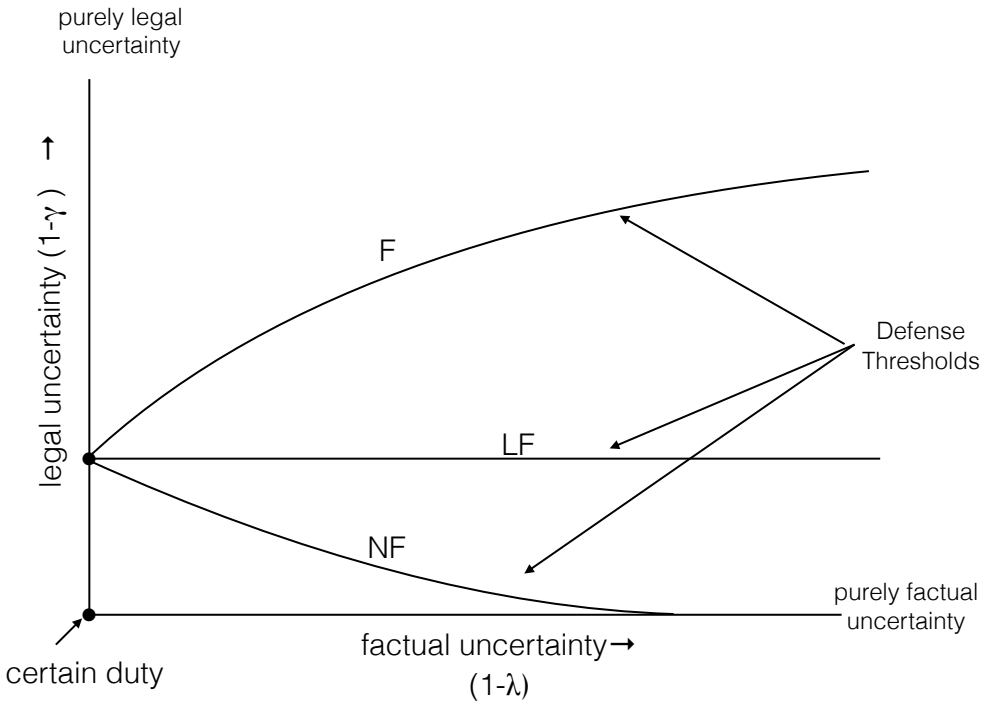

Figure 1: The thresholds under F, NF, and LF

Recall that the cost to an insurer who defends is: $C_I^D = x^* + \lambda\gamma p_G(x^*)D$ Note that $x^* + \gamma^\dagger p_G(x^*)D = \gamma^\dagger(x_0 + p_B(x_0)D)$. Since $p_G(x^*) < p_B(x_0)$ for any $\lambda < 1$, $x^* + \lambda\gamma^\dagger p_G(x^*)D > \gamma^\dagger(x_0 + \lambda p_B(x_0)D)$

Therefore if $\lambda < 1$, and $\gamma < \gamma^\dagger$, $C_I^{LF} < C_I^D$, and the insurer will refuse to defend.

Note also that since $x^* + \gamma^\dagger p_G(x^*)D = \gamma^\dagger(x_0 + p_B(x_0)D)$. For any $\lambda < 1$, and for any $\gamma > \gamma^\dagger$, $x^* + \lambda\gamma p_G(x^*)D < \gamma(x_0 + p_B(x_0)D)$, so $C_I^{LF} > C_I^D$ and the insurer will defend.

■

Unlike the Forfeiture or No Forfeiture rules, the limited forfeiture rule would insulate the decision to defend from the influence of factual uncertainty. If there is insufficient legal uncertainty to trigger the reasonable basis defense to forfeiture, the presence of factual uncertainty makes the forfeiture penalty more costly, and makes refusing to defend less attractive, rather than more attractive, so the insurer will choose to defend. On the other hand, if there is enough legal uncertainty for the insurer to trigger the reasonable basis defense, factual uncertainty will make refusing to defend more attractive. Consider the sexual assault example above, if the insurer was confident that a court would rule that the argument that sexual contact with a

patient constituted intent to harm as a matter of law was sufficiently plausible to form a reasonable basis to refuse to defend, the insurer would not expect to face forfeiture, even if a court ruled they were bound to defend, so the insurer would not be over-deterred. On the other hand, if the insurer is refusing to defend, not because the court is likely to agree there is no duty to defend, but because it thinks it can avoid the consequences of low quality defense through the fact-based coverage defense that the doctor *did* intend to harm, that would not constitute a reasonable basis to refuse to defend. In this case, the insurer would face forfeiture, so it would be deterred from refusing to defend on pretextual grounds.

Figure 1 shows how in the absence of factual uncertainty, at the left edge of the graph, when $\lambda = 1$, all three rules (NF,F, and LF), lead to the same legal uncertainty threshold. As we move right on the graph, decreasing λ and increasing factual uncertainty, the NF threshold decreases, implying that under NF, the insurer requires less legal uncertainty to refuse to defend. In contrast, the F threshold increases, implying that under Forfeiture, an insurer would become less likely to refuse to defend. Under the Limited Forfeiture rule, the legal uncertainty threshold remains unchanged at $\gamma^{\dagger}$.

3 Discussion

This paper has examined the performance of a limited forfeiture rule, where an insurer who refuses to defend a policyholder can contest liability for judgment only if the refusal to defend was based on a reasonable legal argument. In order to implement this standard accurately as modeled, a court would need to observe the insurers' prior beliefs about the validity of their legal claims, as well as know the costs to the parties of denying a defense. Such knowledge is almost certainly beyond the ken of the courts. Nonetheless, we believe this formulation of the limited forfeiture rule has both practical and conceptual value. In particular, this formulation delineates permissible and impermissible considerations for an insurer deciding whether or not to defend. The rule makes it clear that the insurer should consider the degree to which forcing a policyholder to undertake his own defense will negatively impact the quality and efficiency of the defense, and the insurer may weigh this against the cost of defending claims when it had it no legal obligation to do so. What the insurer may not do is discount the negative impact on the defense because it thinks it can get out of covering the underlying claim.

Turning to the practical effects of uncertainty regarding the reasonable basis standard, since that standard operates as something like a negligence standard, one might expect that insurers would react to an uncertain standard somewhat similarly to how injurers would react to an uncertain negligence standard, so that uncertainty would cause insurers to defend even more than under a forfeiture rule, similar to the findings

that uncertainty about the due care standard can lead to excessive care.[13] However the decision of the insurer is a binary one of whether or not to defend. For this reason, uncertainty about the standard does not necessarily make the insurer more likely to defend.

More precisely suppose the likelihood of being found in violation of the reasonable basis requirement is zero when $\gamma = \underline{\gamma}^\dagger$, one when $\gamma = \bar{\gamma}^\dagger$) and increasing on the interval $(\underline{\gamma}^\dagger, \bar{\gamma}^\dagger)$. In that case, the threshold must be in the interval $(\underline{\gamma}^\dagger, \bar{\gamma}^\dagger)$. If we suppose the error is symmetric, so the the likelihood of being found in violation is exactly 50% at $\gamma^\dagger$, whether or not the defense threshold is greater than or less than $\gamma^\dagger$ depends on the parameters. Specifically if the likelihood of liability with a bad defense is exactly twice the likelihood with a good defense there will be no bias.[14] If the likelihood of being found liable with the insurer provided defense is more than half that with the policyholder provided, defense[15]decreasing λ decreases the cost of defending relative to the cost of refusing to defend, and as λ decreases the insurer will defend at $\gamma^\dagger$, implying the threshold falls below $\gamma^\dagger$. Our conjecture is that if the uncertainty about the legal standard of a reasonable basis is small, the insurer will defend if and only if the likelihood of being found in violation of the reasonable basis requirement is at least the ratio p_G/p_B.

We have assumed that when the insurer defends, the court can ensure the insurer provides an optimal defense. To the degree that the court cannot monitor the insurance company, the insurer would have an incentive to reduce the amount it spends on defense when it thinks it can avoid coverage. One might worry that in an extreme case, these incentives could make the duty to defend counterproductive, so that a policyholder would be better off paying for her own defense. Thus the desirability of enforcing a duty to defend is dependant on the ability of the legal system to ensure that insurers defend adequately. There is of course a parallel between a claim for inadequate defense (which is not the subject of this paper), and a claim for wrongful refusal to defend, and we think it is likely that many of the arguments developed in this paper would apply to a rule mandating forfeiture of coverage defenses when an insurer provides an inadequate defense.

Another complication which is not formally addressed here is the effect of pretrial settlement. Insurers generally also have a duty to make reasonable settlement decisions. Thus in the presence of a reasonable settlement offer, a duty to defend also may entail an element of a duty to indemnify. We note that because this increases the costs of defense, this gives an additional incentive for an insurer to refuse to defend in the presence of factual uncertainty. Since most cases end in settlement, choosing to defend may implicitly entail choosing to indemnify. As a formal matter an insurer has

[13]See Shavell, Steven, 1987 *Economic Analysis of Accident Law*

[14]To see this, consider the sign of $\frac{d}{d\lambda}(2\lambda\gamma^\dagger p_G(x^*)D - \lambda\gamma^\dagger p_B(x_0)D - \gamma^\dagger p_B(x_0))$ We note that this will be zero if ${}^2\gamma\dagger p_G(x^*)D = \gamma^\dagger p_B(x_0)D$

[15]Note this implies that $\frac{d}{d\lambda}2\lambda\gamma^\dagger p_G(x^*)D - \lambda\gamma^\dagger p_B(x_0)D - \gamma^\dagger p_B(x_0)) > 0$

a duty to settle a case that it has wrongly refused to defend. As a practical matter it is typically too late to settle once an insurer has refused to defend, so an insurer may be able to escape the duty to settle by refusing to defend, and a limited forfeiture rule would provide more reliable incentives to the insurer.

This paper has focused on characterizing the incentives faced by insurance companies to comply with their duty to defend. We have taken the duty to defend as a given, and have not challenged the premise that in the absence of legal uncertainty, an insurer should defend a claim, even when there is only a small chance that the facts would imply coverage. One might worry that the exclusion in the policy can be undercut when there is likely to be factual uncertainty and the insurer is likely to settle any case where there is a duty to defend. In this case, it might be optimal not to impose a duty to defend when there is only a small possibility of coverage, and over-deterrence of refusal to defend in the face of factual uncertainty could increase moral hazard. In order to properly address this question, one must grapple with the reasons why the duty to defend is broader than the duty to indemnify. Future work may focus on a more complete exploration of the optimal duty to defend.

4 Conclusion

The fact that the duty to defend is broader than the duty to coverage can complicate the incentives of an insurer deciding whether to defend a policyholder. We argue that distinguishing between factual uncertainty and legal uncertainty can help us conceptualize a legal rule that provides incentive to defend while appropriate in the face of factual uncertainty without over-deterring refusal to defend in the face of bona fide legal uncertainty. We believe that the Limited Forfeiture rule, as proposed in the Restatement of the Law of Liability Insurance is a workable implementation of the approach suggested by our analysis.

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