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The Law of Duress and the Economics of Credible Threats

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## THE LAW OF DURESS AND THE ECONOMICS OF CREDIBLE THREATS

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### Abstract

This paper argues that enforcement of an agreement, reached under a threat to refrain from dealing, should be conditioned solely on the credibility of the threat. When a credible threat exists, enforcement of the agreement promotes both social welfare and the interests of the *threatened* party. If agreements backed by credible threats were not enforceable, the threatening party would not bother to extract them, and would simply refrain from dealing – to the detriment of the threatened party. The doctrine of duress, which predominantly controls such agreements, only hurts the “coerced” party. By denying enforcement in cases where a credible threat exists, duress doctrine precludes the threatened party from making the commitment that is necessary to reach agreement and reduces incentives to invest. The analysis in this paper suggests that, in dealing with agreements reached under threats to breach, courts should replace the duress methodology with a credibility inquiry. It discusses factors that would be relevant under such inquiry. Finally, it demonstrates some of the applications of this approach in the context of leading contract modification cases.

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## I. INTRODUCTION

The negotiation of a transaction often involves threats by one party to refrain from dealing unless a particular provision, favorable to the threatening party, is accepted. For centuries, contract law has been searching for a unifying principle that will determine when such threats should be considered “improper”, rendering the resulting agreement unenforceable on the grounds of duress. Thus far, such a general criterion has failed to emerge.<sup>1</sup>

One area in which duress jurisprudence has been particularly active involves the modification of previously agreed-upon contracts. When circumstances surrounding performance change relative to the parties’ contemplation, such that the original deal becomes less attractive for one of the parties, a demand for modification of terms, backed up by a threat to breach the deal, is often made. Subsequently, the acquiescing party might challenge the validity of the modification. The contract law doctrines of duress and modification determine whether these renegotiated terms are enforceable.

In determining whether to enforce the modification, these doctrines focus on the perspective of the *threatened* party. Whenever this party is deemed to have had “no reasonable alternative” but to surrender, specifically when legal remedies for breach were insufficient and no alternative partners were available, the modification is unenforceable.<sup>2</sup>

In contrast, this paper argues that modification doctrine should focus solely on the perspective of the *threatening* party. The main argument is that if the threat to breach was credible, the resulting modification ought to be enforced, even if blatantly coercive. Such enforcement is necessary to protect the interests of the *threatened* party. Whenever the threat to breach is credible—when it

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<sup>1</sup> “The history of generalization in this field offers no great encouragement for those who seek to summarize results in a single formula.” See John P. Dawson, *Economic Duress—An Essay in Perspective*, 45 Mich. L. Rev. 253, 289 (1947).

<sup>2</sup> See 7 CORBIN ON CONTRACTS §28.6 at p. 57 (Rev. ed. 2002) (“A modification coerced by a wrongful threat to breach under circumstances in which the coerced party has no reasonable alternative should prima facie be voidable.”) See also *infra* Section V. Cf. Restatement (Second) of Contracts (hereinafter “Restatement”) §175 (1) (“If a party’s manifestation of assent is induced by an improper threat by the other party that leaves the victim no reasonable alternative, the contract is voidable by the victim”).

would be in the interest of the threatening party to breach the contract unless modified—it is in the interest of the threatened party, who has no alternative partners and inadequate remedies, to acquiesce and prevent the breach. Although ex-post (after performance is rendered and the threat to breach is no longer pending) this party may seek to invalidate the conceded modification, ex-ante (at the time when the threat is still pending) she might be better off committing to a modification. But the threatening party will not bother making threats to extract unenforceable modifications, and would rather breach. The option to concede the modification terms and avoid breach would be eliminated under a regime that invalidates “coerced” modifications.

Accordingly, this paper argues that this credibility criterion should replace duress principles as the centerpiece of modification doctrine.<sup>3</sup> Duress jurisprudence, focusing on the availability of “reasonable alternatives” and on the adequacy of remedies, is misguided if only because it is redundant: if the threatened party had adequate alternatives or fully compensatory remedies, she would not have surrendered to the threat. The fact that she did surrender indicates that she *must* have considered her other alternatives less desirable. But the duress criterion is misguided in an even more troubling sense. Since coercion inquiry is indifferent to the question of credibility, it is ill equipped to promote the interests of threatened parties who have no adequate remedies and want to commit to modifications and avoid the even worse outcome of breach.

The duress regime not only hurts the threatened party, it may also generate significant efficiency costs. First, by preventing the commitment necessary to induce performance, the duress regime leads to inefficient breach. Second, the duress regime distorts ex-ante incentives. Contrary to common belief, duress analysis and the resulting non-enforcement of modifications do not solve the hold-up problem. Refusing to enforce modifications can stimulate ex-ante investment only when it induces performance of the original contract. But when the threat to breach is credible, non-

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<sup>3</sup> In fact, credibility is key not only in the context of contract modification, but also in any legal or philosophical analysis of coercion. See Oren Bar-Gill & Omri Ben-Shahar, *Credible Coercion*, mimeo (2003).

enforcement of modifications will only lead to breach. And from an ex-ante investment perspective the prospect of breach is generally more troubling than the modification alternative.

The analysis in the paper is structured as follows. Section II begins by showing that in an environment of symmetric information, the only role for the courts is to enforce all modifications. This is the “benchmark” claim that the standard duress criterion should be abandoned. Section III then extends the analysis to environments of asymmetric information and shows that the sufficient condition for enforcement of modifications should be the credibility of the threat to breach. This claim is highly robust: it is shown to apply even if courts ability to verify the credibility criterion is imperfect. Section III also considers various other extensions, including specific investment, risk allocation, and fabricated credibility. Section IV discusses various factors that can help courts determine whether the threat to breach was credible. Section V then applies the analysis to existing law. It shows that modification jurisprudence is by and large founded on the duress criterion. It analyzes several leading cases and argues that better decisions would have been reached had courts completely abandoned the duress tests and substituted them with the credibility methodology. While the seeds for this desirable reform were already planted with the Uniform Commercial Code’s “changed circumstances” test,<sup>4</sup> the actual implementation of this changed circumstances test is still subsumed by duress analysis.

The importance of the credibility methodology has been recognized before. Most notably, in two papers by Alan Schwartz and Jason Johnston the claim was made that the credibility of the threat to breach should be a factor weighing in favor of enforcement of modifications.<sup>5</sup> The

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<sup>4</sup> UCC, § 2-209, cmt. 2; Restatement § 89 (“A promise modifying a duty under a contract not fully performed on either side is binding (a) if the modification is fair and equitable in view of circumstances not anticipated by the parties when the contract was made....”)

<sup>5</sup> See Alan Schwartz, *Relational Contracts and the Courts: An Analysis of Incomplete Agreements and Judicial Strategies*, 21 J. Legal Stud. 271 (1992); Jason S. Johnston, *Default Rules/Mandatory Principles: A Game Theoretic Analysis of Good Faith and the Contract Modification Problem*, 3 S. Cal. Interdisciplinary L. J. 335 (1993). See also Richard Posner, *Gratuitous Promises in Economics and Law*, 6 J. Legal Stud. 411, 421-424 (1977); Daniel Graham

analysis in this paper goes beyond these previous contributions in several key respects. First, it makes the case *against* the conventional duress analysis. That is, it argues that credibility should be a *sufficient condition* for enforcement. Second it explores the implications of such a regime on a broader array of incentives, including reliance and other types of ex-ante investment. Finally, it develops an operational methodology for adjudication of modification disputes, and applies it to leading common law cases and to the Uniform Commercial Code.

## II. BASIC ANALYSIS

### A. Setup

Consider a seller (he) and a buyer (she) contracting over the sale of one indivisible asset. At period 0 the two parties sign the original contract, specifying the delivery of the asset by the seller to the buyer in exchange for a payment,  $p$ .<sup>6</sup> The value of the asset to the buyer is  $v$ . The seller's cost of creating the asset (or parting with the asset) is thought to be  $c$ , at this period.

Before period 1, an "unanticipated" change of circumstances might increase the cost of performance for the seller from  $c$  to  $C > c$ . It is assumed that performance is efficient, even with the higher price  $C$ , namely  $v > C$ .<sup>7</sup> As a result of the cost increase, at period 1 the seller may demand to renegotiate the contract price. It is initially assumed that the cost increase is symmetrically observable by both parties, but this assumption will be relaxed in section III below. If renegotiation is successful, the parties agree on a new price,  $P > p$ . Then, at period 2, the seller decides whether to deliver the asset to the buyer.

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& Ellen Pierce, *Contract Modification: An Economic Analysis of the Hold-Up Game*, 52 Law & Contemp. Prob. 9 (1989); FARNSWORTH, CONTRACTS 280-281 (3d ed. 1999).

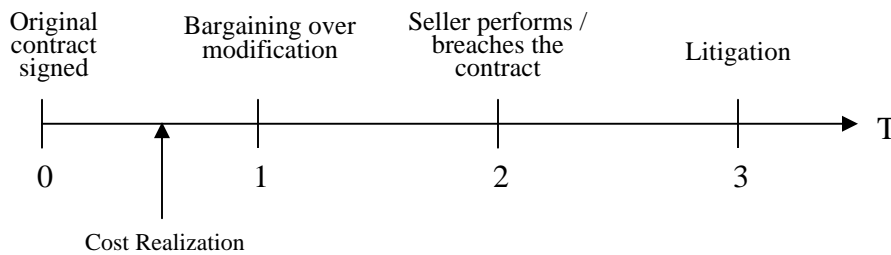
<sup>6</sup> This is clearly an incomplete contract, as it does not specify the optimal provisions for every possible contingency. In analyzing the legal treatment of contractual modification, it makes sense to assume such incompleteness. Only when the original contract is incomplete will the parties find beneficial opportunities to modify it. For similar accounts of contractual incompleteness and subsequent renegotiation – *see e.g.* Milton Harris and Bengt Holmstrom, *On the Duration of Agreements*, 28 Int'l Econ. Rev. 389-405 (1987), and Steven Shavell, *The Design of Contracts and Remedies for Breach*, 99 Quar. J. Econ. 121-148 (1984).

<sup>7</sup> This assumption is made only for clarity of exposition. For an analysis of the efficient breach case – *see* Schwartz, *supra* note 5, at 311; and Johnston, *supra* note 5, at 352.

Finally, at period 3, litigation may occur. There are two typical types of lawsuits. The first is a suit for the recovery of damages for breach of contract. If at period 1 the parties failed to agree on a modification and at period 2 the seller decided to breach the contract, then at period 3 the buyer may sue for expectation damages,  $d$ . Ideally, expectation damages will be set to equal the buyer's loss,  $d = v - p$ , but the analysis will also consider cases in which  $d$  deviates from this pure measure. Since no modification was agreed upon, this kind of lawsuit does not raise any issue regarding the validity of a modification.

The second type of lawsuit arises if at period 1 the parties agree on a modification of the original contract and the contract price is raised to  $P$ . Once this modified price induces the seller to perform at period 2, the buyer may renege upon her period 1 concession. In this case, the seller will sue for the unpaid balance  $P - p$ . It is here that the court has to decide whether to uphold the modification or invalidate it.

The timing of the interaction between the seller and the buyer, as described above, is depicted in the following figure:



We analyze the strategic interaction between the buyer and the seller by solving for the Sub-Game Perfect Nash Equilibrium via “backward induction.”

### **B. The Seller's Threat to Breach**

If the seller's cost rises from  $c$  to  $C$  but his attempt at modification of the price fails, will he perform or breach the initial contract? The seller's decision is based on a comparison between his performance payoff and his breach payoff. If the seller performs, he nets  $p - C$ . If he

breaches, a court will ideally order him to pay damages of  $d = v - p$  at period 3. Generally, however, the burden imposed on the seller by these prospective damages is different than  $d$ , and may be either higher or lower. Denote this burden by  $D_s$ .<sup>8</sup> Comparing the seller's performance and breach payoffs, a rejection by the buyer of the modification demand will lead the seller to breach *if and only if*

$$(1) \quad C - p > D_s$$

When condition (1) is satisfied, namely, when the seller's net cost of performance exceeds the burden of remedies, we say that the seller has a *credible threat to breach*.<sup>9</sup> When the seller does not have a credible threat to breach, the buyer (who, recall, is assumed for now to have perfect information concerning the seller's cost) expects that the seller will perform the contract even if his modification demand is rejected. Accordingly, the buyer will reject any modification demand at period 1, regardless of whether a modification is enforced by the court.

### **C. The Buyer's Decision: Modification v. Remedies for Breach**

We now turn to the case where condition (1) holds, namely, the seller has a credible threat to breach. Is it in the interest of the buyer to modify the contract?

The buyer's bargaining strategy at the renegotiation stage is determined first and foremost by her outside option. The buyer may reject the modification demand, and after the seller breaches sue for damages. As discussed above, a court will ideally award the buyer damages of  $d = v - p$ . Generally, however, the buyer's payoff in the event of breach may be different from  $d$ . Denote this payoff by  $D_B$ , a parameter that measures the buyer's effective remedy protection.

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<sup>8</sup> The reasons why  $D_s$  differs from  $d$  has to do with imperfections in, and the cost of the enforcement process, resource constraints, and more. These factors will be analyzed in section IV *infra*.

<sup>9</sup> Note that condition (1) implies  $D_s < d$ .



Since the buyer can attain at least  $D_B$  without a modification, she will not agree to a modified price greater than  $P_B = v - D_B$ .<sup>10</sup> Consequently, the highest price increase that the buyer will consider is  $\Delta p_B \equiv P_B - p = v - p - D_B$ . Clearly, there will be no modification when  $\Delta p_B \leq 0$ . Hence, a necessary condition for modification is

$$(2) \quad D_B < v - p (= d)$$

When condition (2) is satisfied, we say that the buyer is *inadequately protected by legal remedies* and will potentially benefit from a modification of the original contract. Otherwise, she will reject *a-priori* any attempt by the seller to extract a modification, and obtain the legal remedy for breach.<sup>11</sup>

#### **D. Analysis of the Legal Regimes**

##### *1. The No-Enforcement Regime*

Consider first behavior under a legal regime where the court is expected to invalidate any modification. This is the old common law rule that deemed a modification to lack consideration, rendering it unenforceable. Under this regime, the buyer is entitled to recover the incremental price paid,  $P - p$ . Expecting the nullification of any agreed-upon modification, the seller who has a credible threat to breach will not bother to seek a modification and will breach the contract.<sup>12</sup>

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<sup>10</sup> If  $P_B \geq v - D_B$ , then  $v - P_B \leq D_B$ , and the buyer is better off waiting for the seller to breach and then collecting a damage award.

<sup>11</sup> This is a well-known result. See, e.g., Johnston *supra* note 5, at 338 (“The classic contract modification hold-up game... happens because the remedy for contract breach is not fully compensatory”).

<sup>12</sup> See e.g., Schwartz, *supra* note 5, at 309 (The “performing party... will not seek a modification that is less favorable to the paying party... than [the original contract] if the law permits [the paying party] later to avoid the modification and reinstate [the original contract]. If that rule were to obtain, then... anticipating this [reinstatement of the original contract], [the performing party] would not propose [a modification] but rather would perform under [the original contract] or breach it.”)

## 2. *The Unconditional Enforcement Regime*

Next, consider a legal regime in which any modification is enforceable.<sup>13</sup> The buyer will not agree to a modification unless she sees that the seller has a credible threat -- unless condition (1) holds. Further, the buyer will not agree to a modification unless condition (2) holds -- unless her remedies for breach are inadequate.

Moreover, a modification will be agreed upon only if both parties can be made better off under it relative to their outside options. For the seller the new price must exceed the original price by at least  $\Delta p_s = C - p - D_s$ , the difference between the seller's performance payoff and breach payoff. For the buyer we already saw that the maximum price increase would be  $\Delta p_b = v - p - D_b$ , her reservation value. Thus, a modification is feasible only if  $\Delta p_b > \Delta p_s$ , or:

$$(3) \quad v - C > D_b - D_s.$$

We refer to (3) as the *existence of a modification range* condition.<sup>14</sup> The precise value of the modified price, between  $p + \Delta p_s$  and  $p + \Delta p_b$ , depends on the parties relative bargaining power.

Since conditions (1) and (3) together imply condition (2),<sup>15</sup> i.e. when the seller has a credible threat to breach and a modification range exists, necessarily the buyer is inadequately protected by legal remedies, we can summarize the descriptive observations as follows:

*When a modification is legally enforceable, it will occur if and only if conditions (1) and (3) hold, namely if and only if the seller has a credible threat to breach and a modification range exists. When a modification is legally unenforceable, it will not occur.*

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<sup>13</sup> This is the regime analyzed in most of the economic hold-up literature. See, e.g., OLIVER HART, FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE, ch. 2 (1995).

<sup>14</sup> When  $D_b = D_s$ , a modification range exists whenever performance is efficient, namely, whenever  $v > C$ .

<sup>15</sup> Condition (3) can be rewritten as  $D_b < D_s + v - C$ . Substituting condition (1), we obtain  $D_b < C - p + v - C = v - p$ .

## E. The Regimes Compared

Proposition 1: *Under perfect information, the threatened party is better off, and social welfare is increased, if, whenever a modification is agreed upon, the court enforces it.*

**Remarks:** (i) *Intuition.* Whenever the seller has a credible threat, it is in the buyer's interest to have the resulting modification enforced. Surely, the buyer prefers to pay the original, lower price, rather than the modified one. However, because of the credibility of the threat, this outcome is not feasible: it is not incentive-compatible for the seller. Recognizing that her most preferred outcome cannot be attained, the buyer's remaining choice is between the modified contract and damages for breach. The fact that she agreed to a modification indicates that it is advantageous to her, as it helps her commit a higher payoff to the seller and thus secure performance when remedies for breach are inadequate.

(ii) *Social Welfare.* When the seller has a credible threat to breach, non-enforcement of modifications would lead to inefficient breach (recall that  $v > C$ ). Enforcement of modifications prevents such inefficient breach and thus increases social welfare.<sup>16</sup>

(iii) *Inadequacy of Remedies and the Doctrine of Duress.* Proposition 1 argues that under perfect information all modifications should be enforced. In particular, it implies that enforcement should *not* depend on the adequacy of the buyer's remedies. The point is that if the buyer acquiesced to the modification demand, it must be the case that she perceived the remedies to be inadequate, or else she would have rejected the demand and settled for remedies. If a court were to use the inadequacy of remedies as grounds not to enforce the modification, it would undermine the buyer's preference and force her to settle for the inadequate remedies. From an economic perspective, it would be equivalent to the polar regime of non-enforcement. Unfortunately, as we will show in greater detail in Section V below, this is precisely what the majority of courts do when applying the doctrine of duress in modification cases.

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<sup>16</sup> Note that non-enforcement of modifications creates an inefficiency even in the complete information case. Compare to Johnston, *supra* note 5, Section II.A, where the inefficiency result is linked to asymmetric information.

(iv) *The Doctrine of Changed Circumstances.* Another approach, which is occasionally applied in courts, conditions enforcement of a modification on the existence of a demonstrable change of circumstances affecting the seller's cost of performance.<sup>17</sup> One way to interpret this doctrine is to say that modifications are enforceable only if condition (1) holds, i.e. if the changed circumstances gave rise to a credible threat to breach. But recall that under symmetric information condition (1) is necessary for modifications to emerge. Thus, this regime is equivalent to the polar regime of unconditional enforcement, and there is no need for courts to actually verify changed circumstances.

(v) *Judicial Regulation of the Modification Terms.* Even when the threat is credible, the law may nevertheless provide some protection to the coerced party by regulating the terms of the modification. The fact that the threat is credible means, as we established, that the original contract terms could no longer be attained. It does not mean, however, that the new terms extracted by the threatening party are the minimal necessary terms to induce him to perform. That is, while the threat to breach under the original price  $p$  may well be credible, the threat to accept nothing less than  $P$  may not be credible. It is here that the law can effectively intervene. The law would not enforce a modification, even if resulting from a credible threat, if the modified price is set at a level that gives the seller more than a reasonable rate of return (similar to the "fair and equitable" standard invoked by the Restatement).<sup>18</sup> In our model, the law can set a cap on the price increase anywhere above  $\Delta p_s = C - p - D_s$ , which is the level that would guarantee that the seller breaks even. Such a cap will not affect the incidence of modification, but only tilt the division of the renegotiation pie in the buyer's favor. To the extent that courts can verify the minimal price increase necessary to induce the threatening party to perform, the cap may be effectively implemented. The danger, of course, lies in the potential for judicial error.

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<sup>17</sup> See, e.g., *Angel v. Murray* 322 A. 2d 630 (1974).

<sup>18</sup> See *Graham & Pierce*, *supra* note 5.

Courts might be able to verify that the old price  $p$  is too low for the seller, but they might have a harder time figuring out the correct cap—the minimal price that the seller would genuinely require.

Interestingly, an argument can be made that it would not be necessary for courts to initiate such price regulation, since the buyer can privately “activate” it. Specifically, the buyer can unilaterally constrain the hold-up power of the seller in the following way. If the buyer observes that the seller’s cost rose to  $C$ , the buyer would unilaterally announce her willingness to bear a price increase, and would name the minimal price that would make the seller prefer performance to breach. Now, all that is required is for the court to be willing to enforce such a unilateral price concession. This way, the buyer can effectively preempt any threat by the seller that is intended to extract an even greater concession; with the conceded price increase, the seller will no longer have a credible threat. Even a statement: “I agree to pay you exactly what it takes for you to break even” would suffice in constraining the modified price, as long as the court can figure out what this price should be. By unilaterally announcing her willingness to reduce her share, the acquiescing party improves her position, curtailing her opponent’s ability to further hold her up.<sup>19</sup>

(vi) *A Note on the Literature.* The relevance of the credibility of threats to the enforcement of promises has been recognized before. Earlier articles have shown that enforcing some modifications could be efficient, and thus could benefit even the party who later tries to disavow the modification. Particularly, Alan Schwartz and Jason Johnston recognized that modifications would be efficient only when the threat satisfies a condition similar to our condition (1). (Both, it should be noted, look only at one side of condition (1)—the cost increase—but do not compare this increased performance cost to the breach payoff.<sup>20</sup>) However, previous articles also argued that additional tests were

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<sup>19</sup> We are grateful to Ian Ayres for making this observation, which builds on a similar “private additur” mechanism developed in Ian Ayres and Kristin Madison, *Threatening Inefficient Performance of Injunctions and Contracts*, 148 U. Pa. L. Rev. 45 (1999)

<sup>20</sup> See Schwartz, *supra* note 5, at 311 (discussing the case where the cost of performance turns out to be higher than initially anticipated). Johnston, *supra* note 5, at 340-1 (focusing on “a change in circumstances that made

necessary to further limit the enforceability of modifications.<sup>21</sup> Our analysis shows that no further test should be required, as the credibility of a threat not to perform should be sufficient for enforcement of a modification.

### III. ASYMMETRIC INFORMATION

The analysis thus far suggests that courts should enforce any modification that the parties agree upon. Opportunistic, non-credible threats to breach will be rejected by the buyer, implying that agreed upon modifications must be arising from credible threats, which, in turn, arise only if the seller's cost increased. This analysis, however, assumes that the buyer can distinguish between credible and non-credible threats. For if she cannot so distinguish, she will not be able to selectively acquiesce to demands when they are credible, and reject them otherwise. Since the credibility factor often depends on the seller's costs, which the buyer cannot observe, the symmetric information model in Section II has only limited application. Accordingly, we extend the analysis in this section to the case of asymmetric information.

#### A. Setup

At period 1, when the seller realizes an updated cost, the buyer can only observe the distribution from which this cost is drawn. For simplicity, assume that there is a probability  $p$  that the seller's cost will be  $C > c$ , and a probability  $(1 - p)$  that the seller's cost will remain  $c$ . The buyer only knows  $p$ . If the cost remains  $c$ , then condition (1) does not hold (i.e.  $c - p < D_S$ ), and the seller prefers performance of the original contract over breach and the resulting damage payment. If the

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performance of the original contract unprofitable for the party requesting the modification.”) It is not clear what role Johnston assigns to the threatening party's breach payoff. He recognizes that the breach payoff is a determinant of the renegotiation pie. (“what the parties bargain over in the interim renegotiation stage is the difference between the value of the remedy for nonperformance and the actual value of voluntary performance.” *Id.*, at 358), but seems to restrict its bearing on the credibility of threats to the case where courts are imperfect (“when the court is imperfect, the more severe the remedy for breach, the less likely it is that such a threat can be credible.” *Id.*, at 342).

<sup>21</sup> Schwartz, for example, endorses what can be interpreted as an inverse inadequate remedies test as a necessary condition for the enforcement of modifications. He argues that modifications should be enforced when the paying party is cut off from the market. See Schwartz, *supra* note 5, at 308-313.

cost of performance rises to  $C$ , then condition (1) holds (i.e.  $C - p > D_s$ ) and the seller has a credible threat to breach.<sup>22</sup>

We assume that the buyer has all the bargaining power at the modification stage. This assumption simplifies the technical analysis and does not diminish the generality of the results. True, in many modification settings, buyers who have no alternatives do not have much bargaining power. Nevertheless, different assumptions about the division of bargaining power will only affect the terms of the modification, not the incidence of modification or its social value.<sup>23</sup>

## **B. Analysis of the Legal Regimes**

### *1. The No-Enforcement Regime*

If a modification is never enforceable, the introduction of asymmetric information has no effect on the analysis. The seller will never bother to make a modification demand. When the cost of performance turns out to be unexpectedly high (i.e. the period 1 cost realization is  $C$ ), the seller will simply breach the contract.

### *2. The Duress Regime*

As in the basic model, a selective enforcement regime based on condition (2) is equivalent to the No-Enforcement regime. Asymmetric information about the seller's cost does not change the fact that modifications will be agreed upon only if condition (2) is satisfied. Namely, the buyer will only agree to a modification if her remedies for breach are inadequate, but this is precisely the condition that renders the agreement voidable. This legal regime makes all agreed upon modifications unenforceable. Under this regime, too, the seller will breach whenever his costs rise to  $C$ .

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<sup>22</sup> Apart from the seller's preference between performance and breach, a second question concerns the existence of a modification range. When  $v - C > D_B - D_S$ , a modification range exists for either low or high cost realizations. When  $C$  is so high that  $v - C < D_B - D_S$ , a modification range exists only for the low cost realization.

<sup>23</sup> A formal analysis under different bargaining power assumptions can be found in Bar-Gill and Ben-Shahar, *Credible Coercion: An Economic Analysis of the Duress Doctrine in Contract Law* (Olin Disc. Paper no. 02-017, University of Michigan Law School), Appendix C.

### 3. *The Unconditional Enforcement Regime*

We next study the polar regime under which modifications are always enforced. Here asymmetric information plays a critical role. When the seller makes a threat to breach, the buyer cannot distinguish between the case in which the threat is credible (when the seller's cost increased to  $C$ ) and the case in which it is not credible (the cost remained  $c$ ). Can the seller take advantage of the asymmetric information?

Since the buyer cannot distinguish a  $C$ -cost from a  $c$ -cost seller, she must follow a uniform modification strategy. If the buyer thinks it is sufficiently likely that the seller's cost is  $C$  (namely, if  $\pi$  exceeds some threshold level), the buyer will offer a price increase that even the  $C$ -cost seller will find acceptable. That is, the buyer would concede a price modification even though she knows that there is some chance that the concession is not necessary to induce performance. If, instead, the buyer thinks that it is *not* very likely that the seller's cost is  $C$  (namely, if  $\pi$  is below the threshold level), the buyer will not offer a price modification and prefer to take the (low) risk that the seller is a  $C$ -cost type and would breach. In such a case, the cost of breach, suffered with relatively low probability, is less than the cost of modification that must be conceded to every type of seller.<sup>24</sup>

Put differently, facing a risk that the seller might breach the contract and leave the buyer inadequately protected by remedies, the buyer has to decide whether to "insure" against this outcome

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<sup>24</sup> Formally, the buyer has to choose between a pooling offer and a separating offer. If the seller's cost is  $C$ , he will accept a price increase of at least  $\Delta p_s = C - p - D_s$ . If the seller's cost is  $c$ , he will perform even without any price increase, namely  $\Delta p_s = 0$ . In choosing her strategy, the buyer will either offer no price increase (inducing "separation" between high cost and low cost sellers, namely only a low cost seller will perform; a high cost seller will breach), or she will offer a price increase that would surely be accepted by the seller, regardless of his "type", i.e.  $\Delta p_s = C - p - D_s$  (a pooling outcome). With the former the buyer nets  $\mathbf{p} \cdot D_b + (1 - \mathbf{p}) \cdot (v - p)$ . With the latter she nets  $v - p - (C - p - D_s)$ . Comparing the two payoffs, the buyer will offer a price increase *if and only if*  $v - C + D_s > [\mathbf{p} \cdot D_b + (1 - \mathbf{p}) \cdot (v - p)]$ , or:

$$(4) \quad \mathbf{p} > (C - p - D_s) / (v - p - D_b).$$



by paying a price increase to both types of sellers. When this risk—the likelihood  $p$  of increased cost of performance—is sufficiently high, the buyer will offer such a price increase.<sup>25</sup>

Relative to the full information case, the renegotiation outcome changes in two ways. First, a modification of the price might occur with a  $c$ -type seller, namely, even when the seller's threat to breach is not credible. Second, a modification may not occur even when conditions (1) and (3) hold—when the seller does have a credible threat—since it is more costly to agree to a modification, as it must be granted non-selectively.<sup>26</sup>

#### 4. *The Changed Circumstances Regime*

In the presence of asymmetric information, the buyer cannot identify and reject all non-credible threats. Accordingly, courts can have the additional role of distinguishing between modifications that are a result of credible threats and those that are not. Consider the version of the Changed Circumstances regime under which a modification is enforceable if and only if condition (1) holds. We assume that at period 3 the court can perfectly verify the seller's performance cost (this assumption will be relaxed below).

The outcome under this regime is identical to the outcome under the unconditional enforcement regime in the full information case. Here, too, the seller would not make a threat to breach unless it is credible. The buyer simply accepts any modification demand at period 1, and later—if it turns out that the seller's cost did not rise to  $C$ , namely if the buyer expects that the court will invalidate the modification—she sues for restitution. Given the buyer's strategy and the court's selective enforcement approach, the seller will make a modification demand if and only if the high cost  $C$  is realized.

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<sup>25</sup> As in the perfect information case, the buyer will not concede to any modification (i.e. will not offer any price increase), unless she is inadequately protected by the legal remedies, i.e. unless condition (2) holds.

<sup>26</sup> Formally, condition (4) is less likely to hold than condition (3).

Stated differently, when courts can perfectly verify the credibility of the seller's modification demand, the buyer's imperfect information is immaterial from an economic point of view. Under a selective enforcement regime, the buyer can effectively "postpone" her decision whether to modify the contract until period 3, at which time the court will make the accurate verification of the seller's cost and approve the modification only when the threat were credible. Indeed, as in the full information model, in the asymmetric information case with selective enforcement all modifications that are made are enforced. True, courts are required, as a prerequisite for enforcement, to verify that the seller had a credible modification demand. So while there are potential modifications that would not pass this scrutiny and would not be enforced, in equilibrium such modifications are never made.<sup>27</sup>

### C. The Regimes Compared

Proposition 2: *Under asymmetric information, the Changed Circumstances regime in which a modification is enforced only if the threat to breach is credible is the superior regime in terms of maximizing both the buyer's welfare and overall social welfare.*

**Remarks:**<sup>28</sup> (i) *Why No-Enforcement is Bad*. In the polar regime in which modifications are not enforceable, the seller will breach whenever his cost of performance turns out to be unexpectedly high,  $C$ . Therefore, in this regime the seller will breach with probability  $p$ . These breaches cause a welfare loss, since by assumption the transaction is efficient even if the cost of performance is high (i.e.  $v > C$ ). Moreover, the buyer would be better off had she been able to prevent these breaches by committing to an enforceable modification. Note that the disadvantage of this polar regime has nothing to do with the introduction of asymmetric information. The inability to commit to an

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<sup>27</sup> In addition, as in the symmetric information case, there will be no modification unless a modification range exists (i.e. unless condition (3) holds.)

<sup>28</sup> The following remarks describe the intuition underlying proposition 2. The formal proof of the proposition 2 is provided in Bar-Gill and Ben-Shahar, *supra* note 23, Appendix A.

enforceable modification reduces the buyer's welfare for the same reason that an inability to make an enforceable promise reduces a transactor's ability to enter into welfare increasing transactions.

(ii) *Why the Duress Regime is Bad.* As explained above, the Duress regime, under which a modification is unenforceable if the buyer has no adequate resort to remedies, is effectively equivalent to the no-enforcement regime. Accordingly, any time the seller's threat to breach is credible, breach will occur, causing a social welfare loss and a private loss to the buyer.

(iii) *Why Unconditional Enforcement is Bad.* In the polar regime in which modifications are unconditionally enforceable, the buyer's welfare is compromised in the following way. Due to her lack of information the buyer might agree to a modification even when the actual cost of performance is  $c$ , such that the seller does not have a credible threat to breach. Alternatively, she might turn down a modification demand when the actual cost of performance is  $C$ , and suffer the consequences of breach. Note, however, that the likelihood of an inefficient breach is smaller, relative to the No-Enforcement/Duress regimes. Here, for an inefficient breach to occur it is not enough that the seller has a credible threat; the buyer must also choose not to propose a price increase.

(iv) *The Optimality of the Changed Circumstances Regime.* If "changed circumstances" are understood to mean any change that renders the threat to breach credible, this regime is optimal for the buyer. Here, as in the symmetric information case, modifications are made *if and only if* conditions (1) and (3) are satisfied. Also, the likelihood of an inefficient breach is the smallest: it will only occur when the seller's cost is high and condition (3) is not satisfied, namely, when there is no modification range. As previously acknowledged, versions of the Changed Circumstances test have been adopted by the UCC, the Restatement, and by some courts. This test has also been supported by legal scholars. The main innovation of the present analysis is not the discovery of the

Changed Circumstances test, but rather in establishing this test as a *sufficient* condition for the enforcement of contract modifications.<sup>29</sup>

#### **D. Imperfect Verification**

The preceding analysis has shown that the credibility test induces an optimal outcome whenever courts can perfectly verify the credibility of the seller's threat to breach. It is clear, however, that such ex post verification will rarely be perfect. If courts are expected to make errors in verifying, say, the seller's cost is the legal regime based on the credibility criterion desirable?

We show in this section that the main insight of our analysis, that credibility ought to be sufficient for enforceability, continues to hold. The possibility that this regime might be applied with error only affects the terms of the modification agreement, not its incidence. To capture the effect of imperfect verification, we assume that courts, when called upon to verify the seller's performance cost, might make the following error: if the true cost of performance is the standard cost,  $c$ , the court will always observe  $c$  correctly; but if the true cost is the unexpectedly high cost,  $C$ , there is a probability  $e$  that the court will mistakenly observe  $c$ , rather than  $C$ . Namely, courts might be unable to verify the *increase* in the seller's cost. This account of one-sided errors seems natural when courts presume that the cost of performance is the ordinary cost,  $c$ , and place the burden on the seller to prove otherwise. Arguably, the seller will find it very difficult to meet this burden, unless the cost of performance is indeed the extraordinarily high cost,  $C$ .<sup>30</sup>

Since courts will not mistake a low cost  $c$  for a high cost  $C$ , but only *vice versa*, low cost sellers will not bother to demand modifications, as in the perfect verification case. Hence, when faced with a modification demand, the buyer will know that the demand is credible. What about the high cost

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<sup>29</sup> Beyond emphasizing credibility as the sole criterion for enforcement of modifications, our analysis also operationalizes the credibility test by laying down a series of practical guidelines to assist the courts in determining credibility. *See infra* Section IV.

<sup>30</sup> We assume that the increased cost component cannot be fabricated, but also cannot always be proved. Accordingly, we argue that it is easier for a court to verify that a cost was *not* incurred than it is to verify that a cost *was* incurred. The case of imperfect verification with two-sided errors is considered below.

seller, who has a credible threat? This seller expects that there is a probability  $e$  that courts would erroneously invalidate the modifications he credibly extracted. Consequently, to offset the cost of judicial error, the high-cost seller would require an even greater price increase. Intuitively, since errors are biased against the seller, this is an additional cost of performance.<sup>31</sup> As compared to the perfect verification case, the seller's reservation price in the imperfect verification case is increased by a factor of  $1/(1-e)$ . If, say, the probability of judicial error is 20%, the price increase will have to be 25% higher relative to the perfect verification case.

Imperfect verification also affects the maximum price increase that the buyer will concede to. Knowing that she may be the "beneficiary" of judicial error, able to rescind the modification and restore the original price  $p$ , the buyer will be willing to accept a larger price increase.<sup>32</sup> As compared to the perfect verification case, the maximal price increase that the buyer will accept in the imperfect verification case is also increased by a factor of  $1/(1-e)$ .

Because both parties' reservation prices shift in the same direction and by the same factor, the condition that guarantees a modification range (condition (3)) remains the same as in the perfect verification case. That is, the parties will agree on a modification *if and only if* both condition (1) and condition (3) are satisfied. Accordingly, as there is no change in the parties' relative bargaining power, the agreed upon modification price will be increased by a factor of  $1/(1-e)$ . In this model, judicial error only shifts the terms of the modification in the seller's favor to compensate the seller for the risk of an erroneous rescission of a legitimate modification; it does not change the incidence of modification. Accordingly, Proposition 2, which establishes the optimality of the Changed Circumstances regime, is robust to the introduction of one-sided judicial error.

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<sup>31</sup> Specifically, with this added error cost, the modified price  $P$  must satisfy  $P - C - e \cdot (P - p) > -D_s$ , and the price increase,  $\Delta p$ , must satisfy  $\Delta p \geq (C - p - D_s)/(1 - e)$ .

<sup>32</sup> For the buyer, the modified price must satisfy  $v - P + e \cdot (P - p) > D_b$ , and the price increase must satisfy  $\Delta p < (v - p - D_b)/(1 - e)$ .

While judicial error in the form of a failure to recognize a cost increase seems more common in the present context, the possibility of an error in the reverse direction cannot be ruled out. Courts might mistakenly accept a seller’s claim that his cost of performance increased, when in fact no such cost increase ever occurred.<sup>33</sup> This type of error reduces the appeal of the Changed Circumstances regime. In particular, such errors generate a distortion that was absent from the one-sided errors model, as low cost sellers now have an incentive to try and masquerade as high cost sellers in the hope that judicial error will allow them to keep the modified price. Given such manipulation by low cost sellers, buyers face the following choice. They can refuse to modify and opt for a separating equilibrium, where low cost sellers perform in exchange for the original contract price and high cost sellers breach;<sup>34</sup> or they can induce a pooling equilibrium by offering a price increase that would be accepted by high cost sellers (low cost sellers will accept any price increase).<sup>35</sup> Importantly, even this pooling equilibrium will generally be “separated” ex post, as courts will usually (but not always) identify the low cost sellers and reinstate the original contract price.<sup>36</sup>

The condition for modification in the two-sided errors model – i.e. the condition under which the buyer would prefer the pooling equilibrium – is more stringent than the condition for modification in the perfect verification model and the one-sided errors model.<sup>37</sup> This might lead to inefficient breach, when judicial error is sufficiently large that the buyer prefers to forgo modification

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<sup>33</sup> For a related analysis of a two-sided errors model, see Johnston, *supra* note 5. Unlike Johnston, we do not assume that the probability of error is symmetric. More importantly, our separate analysis of these two types of errors reveals the different implications of each error type.

<sup>34</sup> Under this equilibrium, the buyer gets:  $(1-p) \cdot (v-p) + p \cdot D_B$ .

<sup>35</sup> Maintaining the assumption that the buyer has all the bargaining power, this price increase would be  $\Delta p = (C - p - D_s) / (1-e)$ , as in the one-sided errors model.

<sup>36</sup> Under this equilibrium, the buyer gets:  $(1-p) \cdot [(v-P) + (1-e_2) \cdot (P-p)] + p \cdot [(v-P) + e \cdot (P-p)]$ , or  $v-p - [1 - (1-p) \cdot (1-e_2) - p \cdot e] \cdot \Delta p$ , where  $e_2$  denotes the probability that a court mistakenly accepts a seller’s claim that his cost of performance increased, when in fact no such cost increase ever occurred.

<sup>37</sup> Instead of condition (3) in the perfect verification and one-sided errors models, we have  $v - C > D_B - D_s + [(1-p) \cdot e_2] / [p \cdot (1-e)] \cdot (C - p - D_s)$  in the two-sided errors model.

altogether (and opt for the separating equilibrium). Also, focusing on the perspective of the threatened party, judicial error reduces her payoff even under the efficient pooling equilibrium.

However, although two-sided errors introduce a distortion into the Changed Circumstances regime, it is still superior to the other three regimes. Both the No Enforcement regime and the Duress regime deprive the buyer of the modification option, forcing her to suffer inefficient breach by high cost sellers, when she would have preferred performance under the pooling equilibrium made possible by the Changed Circumstance regime. The Unconditional Enforcement regime, like the Changed Circumstances regime, provides the buyer with a choice between a no modification separating equilibrium and a pooling equilibrium with modification. But, the pooling option under the Unconditional Enforcement regime is less attractive to the buyer, since it lacks the potential for ex post correction (i.e. rescission) by the court, however imperfect. Moreover, a less attractive pooling option entails a greater likelihood that the buyer would opt for the separating equilibrium, thus risking the possibility of inefficient breach. In sum, even with imperfect verification the Changed Circumstances regime maximizes the well-being of the threatened part as well as overall efficiency.

### **E. Two-Sided Private Information**

Thus far, we assumed that only the seller has private information on the credibility of his threat. We showed that in this common scenario, an enforcement regime utilizing the credibility test as a sufficient condition for enforcement is optimal, even if courts cannot perfectly verify the credibility condition. We now consider situations in which the *buyer* may know some things that the seller does not. For example, the buyer might privately know how much she stands to suffer in damages (“lost expectation”). Since the amount of collectable damages affects the credibility of the seller’s threat, the buyer might try, through her bargaining behavior, to convince the seller that it would be against the seller’s interest to carry out his threat. Put differently, the buyer may respond to the seller’s threat

to breach with a threat of her own, to sue and recover high lost profits. The seller, operating under the credibility regime, would have to try and infer the buyer's information, as this might affect his ability to enforce the modification. Thus, it might be conjectured, the credibility test might induce inefficient signaling behavior and, unless courts can "police" buyers' representations, produce distorted performance outcomes.<sup>38</sup>

We demonstrate below that this intuitive conjecture does *not* alter the main qualitative result in Proposition 2. While two-sided asymmetric information could create distortions, the credibility test continues to be the optimal legal regime, and duress analysis can only reduce the coerced buyer's well-being. To see why this is true, it is important to distinguish whether the buyer's private information is relevant for the credibility of the seller's threat to breach. Consider, first, the case where the buyer's private information is relevant. Namely, if the seller were to know what the buyer knows, that could potentially affect his decision whether or not to breach. This is a common case that arises for example when the buyer has private information about say  $D_B$ , and when  $D_B$  and  $D_S$  are positively correlated. Let us assume initially that both the seller and the buyer know that the seller's true cost is  $C$  (this will soon be relaxed). But there are two types of buyers: a type H buyer with a corresponding  $D_S^H$  and a type L buyer with a corresponding  $D_S^L (< D_S^H)$ .<sup>39</sup> To make things interesting let  $D_S^L < C - p < D_S^H$ , such that, absent a modification, if the seller knew which type of buyer he is facing, he would prefer to perform the original contract when faced with a type H buyer and breach the original contract when faced with a type L buyer. Accordingly, a type L buyer knows that she is "vulnerable"—that if the seller could identify her he would breach the contract with her. But can the seller find this out?

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<sup>38</sup> We are grateful to an anonymous referee for suggesting that this conjecture, which was not previously explored in the literature, be examined.

<sup>39</sup> We assume that for both types of buyers the legal remedy is inadequate. Otherwise, there would be no modification. *See supra* Section II.



In this model, a legal regime incorporating the credibility test can still induce the optimal outcome, by enabling the seller to implement an *efficient separating equilibrium*. Since  $D_S^L < C - p$ , the type L “vulnerable” buyer knows that the modification will be enforced by the court. She will thus surrender to a price increase not exceeding  $\Delta p^L = v - p - D_B^L$ . On the other hand, since  $C - p < D_S^H$ , a type H buyer knows that any modification she agrees to will be rescinded by the court, and thus will agree to any price increase. Consequently, the seller can implement a separating equilibrium by asking for a modification that does not exceed  $\Delta p^L$ . This modification will be initially accepted by all buyers, with type H buyers later going to court and reinstating the original price.<sup>40</sup>

Now let us reintroduce private information on the seller’s side, so that the seller does not observe the buyer’s collectable damages, and the buyer does not observe the seller’s cost. The only difference is that in this extension, all buyers (not only type H buyers), after accepting a modification, will go to court and try to rescind the modification. As before, high cost sellers will offer a modification not exceeding  $\Delta p^L$ . All buyers will initially accept the modification and later try to reinstate the original price, with the court rescinding only modifications conceded to by type H buyers. Low cost sellers know that if they offer a modification, their offer will be accepted by all buyers. They also know that all buyers will successfully challenge the modification in court.<sup>41</sup> Therefore, low cost sellers will not bother to demand a modification, and will simply perform the original contract. Hence, of all the modifications that would be agreed upon, only those occurring

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<sup>40</sup> This outcome is a Perfect Bayesian Nash Equilibrium, given the appropriate out-of-equilibrium beliefs. Specifically, we assume that the seller believes that any buyer who rejects the modification offer is a type L buyer, so that such a rejection would result in breach.

<sup>41</sup> We maintain the assumption that if the cost of performance is low ( $c$ ), the threat to breach is not credible regardless of the buyer’s type.

between high-cost sellers and “vulnerable” buyers—only those in which the credibility condition is satisfied—would be enforced.

We have thus far assumed that the buyer’s private information affects the credibility of the seller’s threat to breach. What if the buyer has private information, but this information is irrelevant to the seller’s breach decision? This would be the case, for example, if a high cost seller has a credible threat to breach, regardless of the type of buyer that he faces. Can duress analysis be of any help in such a case? The answer is again ‘no’. Under the current assumptions, the asymmetric information in the modification stage does not impede upon the renegotiations process. But, even in a more general bargaining model, where asymmetric information can lead to an inefficient breakdown in the renegotiation process, duress analysis is not the answer. The reason is that duress analysis does not reduce incentives to exploit private information. First, a buyer with an inadequate legal remedy will not try to mimic a buyer with an adequate legal remedy. This would only mean that the inadequately protected buyer would reject any modification demand, ending up with a more costly breach. Second, even if the buyer would try to improve her bargaining position by posing as a buyer with stronger legal remedies, duress analysis, via the inadequate remedies test, would not deter such strategic behavior. Instead of punishing her manipulative behavior, the duress doctrine rewards the inadequately protected buyer by rescinding the modification altogether. If anything, the duress doctrine would make sellers even more reluctant to negotiate with buyers.

## **F. Ex Ante Effects**

Thus far, the analysis has focused on periods 1 and 2, that is, on how the legal regime would shape incentives at the modification and performance stages. We now turn to examine incentives at earlier stages. In particular, the analysis explores how the two prevailing regimes, the Duress regime and the Changed Circumstances regime, affect reliance investments, risk sharing and the design of the initial contract.

### 1. *Relationship-Specific Investments*

A major purpose of contracts is to induce relationship-specific investments (i.e., reliance) by the contracting parties. Absent an enforceable commitment, it is commonly recognized that the hold-up problem may lead to underinvestment: If one party makes a relationship specific investment, after the investment is sunk the other party will be able to extract some of its returns by renegotiating more favorable terms.<sup>42</sup> This hold-up might dilute incentives to engage in *ex ante* investments, and thus reduces the value of the transaction.<sup>43</sup>

It might be conjectured that the Changed Circumstances regime, which makes modifications enforceable in a relatively greater set of cases than the Duress regime, would reduce relationship-specific investment. If an investing party anticipates that her counterpart might be able to make a credible threat to breach, modify the contract, and extract some of the returns on her investment, her incentives to invest would diminish. Accordingly, so goes the argument, the Duress regime, which is strategically equivalent to a No-Enforcement regime and which reduces the incidence of modifications, would shield the contractual investment from subsequent hold-up, leading to greater investment and greater overall surplus.

This conjecture stems from an intuitive premise that the buyer's investment is better "protected" under the Duress regime. Generally, this premise is not valid. In fact, more of the buyer's investment can be "forfeited" under the Duress regime. True, under the Changed Circumstances regime some of the investment's returns can be extracted by the other party, to an extent that depends on the legal remedy for breach and on the relative bargaining power of the

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<sup>42</sup> See HART, *supra* note 13, at ch. 2.

<sup>43</sup> Such dilution will occur if the remedies for breach are under-compensatory and are not increasing in the level of investment. An opposite effect might occur when remedies are under-compensatory but *increasing* in either the level of investment or the value of performance. Here, excessive reliance investment may result. See Steven Shavell, *Contracts*, in 1 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 436-445 (Peter Newman, ed., 1998). William P. Rogerson, *Efficient Reliance and Damage Measures for Breach of Contract*, 15 Rand J. Econ. 39 (1984).

parties.<sup>44</sup> But similarly, under the Duress regime the investing party does not enjoy the full return to the investment since an undercompensated breach may occur. How often she loses her investment depends on the likelihood of breach, which in turn depends on how her investment affects the remedy she stands to collect.<sup>45</sup> Accordingly, the buyer will invest more under the Changed Circumstances regime whenever the marginal effect of investment on her “post hold-up” payoff exceeds the marginal effect of investment on her “post breach” payoff.<sup>46</sup> Thus, although the enforceability of modifications based on credible threats under the Changed Circumstances regime provides an occasion to hold-up the investing party, the prospect of an inadequately compensated breach under the Duress regime will also have an adverse effect on the ex ante incentives of the investing party.

This analysis assumes that the likelihood of hold-up—of the seller having a credible threat to breach—is independent of the legal regime. It might be argued, instead, that the Changed Circumstances regime *increases* the incidence of hold-up. The intuition is that by sinking an investment, the buyer becomes *more* vulnerable to rent appropriation, and she will therefore invest less. This intuition, however, is misleading. While it is true that an investing party is more vulnerable to hold-up whenever her counterpart has a credible threat to breach, it is not true that relationship-specific investment increases the credibility of the threat. When one party invests to increase the surplus, the credibility of the opponent’s threat to breach would normally *decline*, not rise. More

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<sup>44</sup> Under the Changed Circumstances regime, whenever the seller has a credible threat to breach and a modification is agreed upon the buyer’s payoff is  $v(r) - p - \Delta p(r)$ , where  $r$  denotes the buyer’s investment. The value that is extracted from the buyer,  $\Delta p(r)$ , may depend on  $r$ . If  $\Delta p(r)$  is increasing (decreasing) in  $r$ , underinvestment (overinvestment) will follow. If, instead,  $\Delta p$  is independent of  $r$ , optimal investment will be taken. Thus, if the price increase depends solely on the seller’s cost, the buyer’s investment would be optimal.

<sup>45</sup> Under the Duress regime, whenever the high cost contingency is realized and the seller breaches the contract the buyer’s payoff is  $D_B$ . Since  $D_B$  is a function of  $v(r)$ , an increase in the investment might increase the buyer’s remedy.

<sup>46</sup> The buyer’s investment will be greater under the Changed Circumstances regime as long as  $\partial \Delta p / \partial v < 1 - \partial D_B / \partial v$ . Since the price increase,  $\Delta p$ , lays between  $C - p - D_S$  and  $v - p - D_B$ , the marginal increase  $\partial \Delta p / \partial v$  lays between  $-\partial D_S / \partial v$  and  $1 - \partial D_B / \partial v$ . Therefore, the buyer will likely invest more under the Changed Circumstances regime.

investment by the buyer will generally increase the buyer's valuation, making the effective burden of remedies on the seller no smaller and perhaps larger; and, some relationship-specific investments by the buyer has the effect of reducing the seller's cost, thereby directly diminishing the credibility of his threat.

Accordingly, we suggest that the problem of relationship-specific investment does not weaken the case in favor of the Changed Circumstances regime. In fact, under a broad set of circumstances, accounting for specific investment only reinforces the case for the Changed Circumstances regime.

## *2. Risk Sharing*

Risk sharing is another central goal that parties seek to advance through contracting. The concern is that the Changed Circumstances regime would limit the parties' ability to allocate risks in their contract. For example, if parties wish to allocate the risk of a cost increase to the seller, so that the seller will perform (without any price increase) even when the cost of performance turns out to be high, they will be unable to do so. The parties anticipate that if the cost would turn out to be sufficiently high the seller would have a credible threat to breach, leading to an enforceable modification under which some of the cost increase is shifted to the buyer.

While it is true that the parties' ability to allocate risks to the seller might be seriously limited, it is not true that this problem results uniquely from the Changed Circumstances regime. In fact, a similar problem—perhaps more severe—would arise under the Duress regime. Under this regime, if the high cost contingency materializes the seller would not bear the increased cost but instead breach the contract. If breach occurs, the buyer would end up suffering a greater decline in payoff (in terms of uncompensated expectation) than the decline in payoff she would have suffered had she borne some of the cost increase.<sup>47</sup>

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<sup>47</sup> Under the Duress regime the buyer would suffer a decline in payoff equal to  $v - p - D_B$ . Under the Changed Circumstances regime the buyer would suffer a decline in payoff equal to  $\Delta p = C - p - D_S$  (if the buyer has all the

Stated differently, the reason why parties cannot allocate the risk to the seller is not the modification regime, but rather the weakness of contractual remedies. In a world in which remedies are perfectly compensatory, the buyer would never surrender to breach threats and the full risk of cost increases could be allocated to the seller. It is the inadequacy of legal remedies that precludes such risk allocations. Consequently, the two regimes differ only with respect to the type of risk that the buyer must bear: the loss due to a price concession versus the loss due to under-compensated breach. If the buyer chooses modification, it must be that she deems the loss from the price concession to be the lesser evil.

### 3. *Manipulating Credibility*

Focusing on the Changed Circumstances regime, we have thus far assumed that the credibility of the threat to breach depends on the realization of a random event (affecting the seller's cost) and is not subject to the direct control of the parties. However, in certain cases credibility might be subject to manipulation by the parties.<sup>48</sup> For example, consider a seller, who has experienced an exogenous cost increase that renders the contract a losing prospect for the seller, but is not high enough to generate a credible threat to breach. The seller might take steps to further inflate his costs, anticipating that with the inflated costs his threat to breach would become credible and enable him to extract a modification from the buyer. Alternatively, the seller may attempt to reduce his expected burden of damages in case of breach ( $D_S$ ), e.g. by assuming excessive higher-priority debt, as a means of bolstering the credibility of his threat to breach.

The credibility manipulation problem can be perceived as especially acute when competition among sellers drives down the initial contract price so that it is set only slightly above the seller's

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bargaining power), or  $\Delta p = v - p - D_B$  (if the seller has all the bargaining power). Since  $C - p - D_S < v - p - D_B$  (otherwise there will be no modification), the Changed Circumstances regime generally leads to a smaller decline in the buyer's payoff.

<sup>48</sup> We are not referring to the case where a party simply claims credibility, e.g. by arguing that his costs have risen when in fact they have not. Rather, we are referring to the case where the party in fact generates higher costs to render his threat to breach credible.

cost. With a lower initial price, even a small increase in performance costs will generate credibility. A strategic cost increase would generate a credible threat to breach, and reopen the negotiations at a time when the seller is no longer competing with other sellers, but is rather in a bilateral monopoly situation in which he can extract a larger ex post portion of the surplus as compared to what he obtained at the ex ante stage under intense competition. Before we can concede, however, that modifications can undermine competitive pricing it should be noted that even with ex ante competition and a low initial price, the seller will often need to engage in substantial manipulation in order to generate credibility. Even if the initial price,  $p$ , is only slightly above the cost,  $c$ , it is not enough for the cost of performance to exceed  $p$  for there to be a credible threat; it must exceed it by more than the cost of breach  $D_s$ . When the burden of damages that the seller expects to bear is not trivial, bolstering credibility will require more significant manipulation.

Still rent-seeking investments in credibility are socially wasteful. They reduce the ex ante value of the transaction to both parties. Consequently, when credibility manipulation poses a significant problem, it weakens the normative case for the Changed Circumstances regime. There are, however, means to combat such manipulation. First, if manipulation is verifiable, courts could refuse to enforce modifications based on manipulated credibility. To the extent that courts are able to identify “avoidable” cost increases, the problem can be mitigated.

Second, the parties themselves may design the initial contract so as to minimize the prospect of manipulated credibility. For instance, instead of a fixed-price contract, the parties may opt for a cost-plus contract, which eliminates the seller’s incentives to manipulate his cost of performance. Credibility manipulation can also be prevented if parties can contractually restrict their power to

modify the contract.<sup>49</sup> However, redesigning the initial contract to render it manipulation-proof has its own costs. A cost-plus contract may induce a sub-optimal allocation of risk (when it is efficient for the seller to bear the risk of a cost increase). And, restricting the ability to modify the contract generates ex post inefficiency (i.e. the possibility of inefficient breach), as under the Duress regime.

Credibility manipulation can also take a different form. Instead of ex post manipulation of the actual cost, the seller might neglect to take ex ante actions and precautions that could reduce the probability of a high cost realization ( $p$ ).<sup>50</sup> For example, a supplier might fail to develop alternative sources of supply that would guard against shortages and price increases in the production factors market; or, a producer might fail to resolve labor disputes (to reduce the probability of a strike). Of course, such distorted *incentives* would translate into distorted *actions* only to the extent that they cannot be scrutinized by courts. But unlike ex post manipulation of costs, such ex ante manipulation of contingencies are generally more difficult to verify and police. Still, this type of manipulation activity, even if it can go undetected, is costly to the party who engages in it (e.g., a supplier who fails to develop alternative sources forgoes cost-saving opportunities). So while it is true that a seller does not internalize all the costs of an increased  $\pi$ , a “corner solution” in which he takes every reasonable discrete action is not unlikely.

#### 4. Summary

When parties are unable to enter into complete contingent contracts that are perfectly enforceable, some ex-ante inefficiencies arise. However, reducing the incidence of renegotiation by making modifications unenforceable would not necessarily reduce these inefficiencies. Although the anticipation, at the contract drafting stage, of subsequent enforceable modifications could distort both

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<sup>49</sup> Contract doctrine, however, makes it difficult to impose such an ex ante restrictions on modifications. See Christine Jolls, *Contracts as Bilateral Commitments: A New Perspective on Contract Modification*, 26 J. Legal Stud. 203 (1997).

<sup>50</sup> See Varouj Aivazian et al., *The Law of Contract Modifications: The Uncertain Quest for a Benchmark of Enforceability*, 22 Osgoode Hall L.J. 173 (1984); Schwartz, *supra* note 5, at 312.



the provisions of the contract (e.g., the risk allocation) as well as subsequent behavior (e.g., inefficient investment), we argued that the anticipation of no-modification would potentially lead to more severe distortions (inefficient breach and derivative ex ante concerns). As long as the original contract is not perfectly enforceable, it is generally in the interest of both parties to have the power to modify it.

#### **IV. THE CREDIBLE THREAT REGIME – NORMATIVE CRITERIA**

The analysis above laid out the case for the Changed Circumstances regime. A modification should be enforced if condition (1) is satisfied, namely if the seller has a credible threat to breach. This section turns to examine ways in which credibility can be ascertained by courts.

Perhaps the most practically important lesson is that, in order to apply the credibility regime, courts should not examine whether the buyer was coerced to agree to the modification – whether condition (2) also holds. The fact that the buyer surrendered indicates that condition (2) was satisfied, that is, that the buyer saw no other choice but to agree to the modification. But the buyer’s “vulnerability” has nothing to do with the seller’s credibility. Even if the loss to the buyer from breach far exceeds the seller’s liability, so that the buyer is the party more eager to avoid breach, the seller’s threat does not become more credible. Recall: the seller’s credibility is determined by asking whether, in case the buyer rejected the threat, the seller would prefer to breach. The loss that the seller can inflict on the buyer via breach does not, in itself, factor into the seller’s calculus. Accordingly, here are some factors that do affect the seller’s credibility.

##### **A. The Seller’s Performance Payoff**

The seller will have a credible modification demand when his loss from performance,  $p - C$ , is greater than the effective damages he expects to bear if he decides to breach,  $D_S$ . We begin with the seller’s performance payoff.

In evaluating the seller's increased cost of performance, courts should understand that not every type of cost affects the credibility of the seller's threat to breach in the same way. It is worth distinguishing between two distinct categories of economic costs.<sup>51</sup> On the one hand, if the seller discovers a new personal use for the asset or incurs higher "technological" costs of performance, then the credibility of his threat to breach is clearly enhanced. On the other hand, if a third party appears, offering a higher price for the asset, it is not only the cost of performance that increases, but also the seller's ability to pay damages (out of his increased revenue). To the extent that the credibility of the seller's threat arises from his relative inability to pay a money judgment in case of breach, a higher price paid by the third party bidder increases the seller's ability to pay. Thus, threats of the form "I will breach unless you pay me what the new bidder offers" would not be credible.

Apart from the cost element itself, the seller's performance payoff depends on the price term in the original contract ( $p$ ). The lower this original price is, the lower the performance payoff, and the more credible the threat to breach. With a small price-cost gap, even a mild increase in production costs may render the seller's threat to breach credible. In cases in which courts cannot directly observe the price-cost gap, they may look to factors such as relative bargaining power and the competitiveness of the seller's market as proxies for the magnitude of this gap.

Finally, the seller's performance payoff depends on the buyer's ability to pay. A buyer who is bankrupt is less likely to pay, rendering the seller's threat to breach more credible. This suggests that bankruptcy courts should allow buyers to pay in full to sellers who would otherwise elect to breach.

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<sup>51</sup> Non-economic, costs may also play an important role. We study one category of non-pecuniary costs associated with parties' fairness concerns in a companion paper, Oren Bar-Gill & Omri Ben-Shahar, *Threatening an "Irrational" Breach of Contract*, *Supreme Ct. Econ. Rev.* (forthcoming).

## B. The Seller's Breach Payoff

The credibility of the seller's threat to breach is inversely related to his breach cost. Condition (1) is more likely to hold the lower is the effective measure of damages the seller expects to bear if he decides to breach,  $D_S$ . Here are some factors that influence this measure.

1. *The Judgment Proof Problem.* If the seller has limited resources, he may end-up judgment-proof and enjoy virtual immunity against high damage awards. In practice, many threats to breach are backed-up by bankruptcy warnings, rendering them credible.

The possibility of judicial errors in assessing damages has an interesting interaction with the judgment-proof problem, which reinforces the systematic downward bias of  $D_S$ . This, even if we assume that judicial errors are unbiased. Normally, unbiased errors are of little consequence: they cancel out on average, leaving the expected damage award equal to  $d$ .<sup>52</sup> In the case in which the seller-defendant might by judgment-proof, however, the upward deviations from  $d$  do not cancel out with the downward deviations. While downward deviations would be complied with, upward deviations might not, as they might be unaffordable to the potentially judgment-proof seller. That is, when judicial error leads to more-than-compensatory damages, the judgment is less likely to be executed than when the error leads to less-than-compensatory damages. On average, the seller will pay less than  $d$ .<sup>53</sup>

2. *Delay.* If the seller decides to breach, the damage payment will often be imposed long after the designated time of performance (i.e. the temporal distance between periods 2 and 3 is generally quite significant), leading to substantial discounting. On the other hand, if the seller

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<sup>52</sup> See Kaplow and Shavell, *Accuracy in the Assessment of Damages*, 39 J. L. & Econ. 191 (1996).

<sup>53</sup> To illustrate, consider the following example. Fully compensatory damages equal 1000. Courts impose damages of either 500 or 1500, each with equal likelihood (thus an unbiased average of 1000). The seller has an initial wealth of 1100, that is, more than enough to pay the fully compensatory damages. In this example, when courts award damages of 500 the seller pays in full out of his wealth. But when the court awards damages of 1500, the seller can only pay 1100. On average, the seller pays 800, less than the fully compensatory measure.

performs, the cost of performance is incurred immediately at period 2. Thus delay in judgment may push the effective  $D_s$  well below the theoretical  $d$ .<sup>54</sup>

3. *Divisible Breach*. The seller's threat to breach may be credible if breach is not a one-time discrete event that triggers the "entire" liability, but rather an accumulation of continuous decisions not to perform. A seller withholding delivery can be viewed as breaching anew every day in which delivery is further withheld, with each daily breach decision adding only a small, divisible, increment of liability (corresponding to the small, divisible, increment of harm). Here, each divisible threat to breach is minimally costly to the seller. Thus, the same factors that have been recognized in the literature to render a threat to sue credible operate with respect to the threat to breach.<sup>55</sup> For example, if the seller can postpone delivery without incurring much liability, and at the same time cause a significant loss to the buyer, his threat to do so is credible, and the price increase he can secure would reflect the loss he can impose on the buyer.<sup>56</sup>

4. *Downward-Biased Settlement*. If the seller breaches, it is far more likely that the parties will agree on a settlement than pursue the case all the way to judgment. Even if the parties expect that judgment would center around  $d$ , it is highly likely that the settlement amount would be less than  $d$ . Factors that affect the settlement amount include the credibility of the buyer's threat to

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<sup>54</sup> These effects are often enhanced by well-documented deviations from perfect rationality that might influence the seller's decisionmaking process. As noted in the text, the cost of performance is imminent. It is salient and clear in the seller's mind. The consequences of breach, on the other hand, lay in the future, often in the distant future. Myopic sellers will tend to excessively discount the cost of breach. Moreover, the cost of breach may seem uncertain. The imposition of damages for breach of contract is buffered by the unpredictability of trial. The uncertainty accompanying litigation opens the door for optimism and other self-serving biases, which have been shown to prevail in litigation contexts. See George Loewenstein, et al., *Self-Serving Assessments of Fairness and Pretrial Bargaining*, 22 J. Legal Stud. 135 (1993).

<sup>55</sup> See, generally, Lucian A. Bebchuk, *Suits With Negative Expected Value*, 3 The New Palgrave Dictionary of Economics and the Law 551 (1998).

<sup>56</sup> David Rosenberg and Steven Shavell, *A Model In Which Suits Are Brought for Their Nuisance Value*, 5 Int'l Rev. L. Econ. 3 (1985).

sue, the parties' expected litigation costs, and their attitudes towards the risk involved in trial.<sup>57</sup> A risk-averse buyer who expects to bear significant litigation costs would be willing to settle for significantly less than  $d$ , making breach less costly for the seller.

4. *Uncompensated Harm*. Another set of factors reducing the seller's breach burden  $D_S$  has to do with contract law doctrines that operate to limit the compensable components of the buyer's harm. If the buyer's lost valuation,  $v$ , includes subjective idiosyncratic elements (such as emotional harm), uncertain elements (such as speculative profits that are lost), or unforeseeable elements (such as high consequential damages), courts are likely to exclude these elements when calculating expectation damages.<sup>58</sup>

These limitations on recovery of damages reduce both  $D_S$  and  $D_B$ . A lower  $D_S$  enhances the credibility of the threat to breach. A lower  $D_B$  renders the buyer more vulnerable to credible threats. In the extreme, if the buyer cannot recover any damages, she will yield to the seller's demand any time it is credible. The seller's demand in this case will be credible whenever  $p - C < 0$ , namely, any time the original contract is a losing one. These observations are of course not surprising. The strength of a contractual commitment depends on the remedies for its breach. The more limited these remedies are, the weaker the contractual commitment, and the more credible is the threat to breach it.

### **C. Rules versus Standards**

The factors identified above, which bear on the existence of a credible threat, may be difficult to verify. Of course, that does not mean that a different, simpler test ought to guide the

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<sup>57</sup> See, generally, Steven Shavell, *Suit, Settlement, and Trial: A Theoretical Analysis Under Alternative Methods For the Allocation of Legal Costs*, 11 J. Legal. Stud. 55, 68 (1982); Lucian A. Bebchuk, *A New Theory Concerning the Credibility and Success of Threats to Sue*, 25 J. Legal. Stud. 1 (1996).

<sup>58</sup> For the limitation on recovery of emotional damages, see Restatement §353, and *Valentine v. General American Credit, Inc.*, 362 N.W.2d 628 (Mich. 1984). For the limitation on recovery of uncertain damages, see Restatement §352, and *Fera v. Village Plaza*, 242 N.W.2d 372 (Mich. 1976). For the limitation on recovery of unforeseen harm, see Restatement §351, UCC §2-715, and *Hadely v. Baxendale*, 9 Exch. 341 (1854).

courts. Surely, the old common law regime of no-enforcement is easier to apply. It is also far more likely to get incentives wrong. Accordingly, the credibility test may be more easily implemented if it is translated into a set of bright line rules. Courts could define categories of situations where the threat to breach is likely to be credible, and enforce modifications that fall into one of these categories. Bankruptcy or judgment-proofness may constitute such a category, creating a presumption of credibility. Likewise, the Code's attention to a "market shift which makes performance come to involve a loss"<sup>59</sup> can be viewed as a bright line rule. While it focuses only on one side of condition (1),  $C - p$ , it provides a prima facie case for credibility.

## V. DOCTRINAL IMPLICATIONS

### A. The Absence of a Credibility Test in Modification Doctrine

Under current law, modifications are selectively enforceable. Section 89 of the Restatement provides that a modification should be binding if it is "fair and equitable in view of circumstances not anticipated by the parties". In deciding what is "fair and equitable," courts usually address solely the perspective of the threatened party. A typical decision would examine whether the concession was a result of coercion, by looking at the threatened party's remedies for breach or the availability of a substitute partner. If these alternatives were inadequate, the court would ordinarily hold that the modification was a result of "duress" and refuse to enforce it. As a leading commentator explains,

"A modification coerced by a wrongful threat to breach under circumstances in which the coerced party has no reasonable alternative should prima facie be voidable. [...] In such circumstances, *it should be immaterial that the party exercising coercion has a good business reason for its wrongful demands.*"<sup>60</sup>

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<sup>59</sup> UCC § 2-209 (cmt. 2)

<sup>60</sup> 7 CORBIN ON CONTRACTS §28.6 at p. 57 (Rev. ed. 2002) (emphasis added). This strict focus on the acquiescing party's reasons for agreeing to the modification is endorsed by legal scholars. *See, e.g.*, Timothy J. Muris, *Opportunistic Behavior and the Law of Contract*, 65 Minn. L.Rev. 521, 534-36 ("In principle, the distinction

This duress criterion is flawed in two ways. First, the inadequacy-of-alternatives condition that courts impose is “redundant”: a modification would not have occurred if remedies were adequate, or if substitute partners were available to the threatened party. That is, within the set of all modification demands, those that are accepted (and eventually arrive at court) are necessarily ones where the inadequacy condition is met. Using this criterion as a condition for enforcement is equivalent to a strict no-enforcement regime. But the duress criterion is flawed in a second, more disturbing, way: it is oblivious to the issue of the credibility of the threat to breach. Our analysis demonstrated that the credibility of the threat to breach should be a sufficient condition for enforcement. Since threats may be credible even when they are coercive, the duress and the credibility tests may be in direct conflict. In such cases, by focusing strictly on the adequacy of remedies issue, courts are not even trying to approximate the credibility test. In fact, courts are instructed to strike down a modification even if the threat that led to it was credible.<sup>61</sup>

The doctrinal neglect of the credibility aspect can be easily demonstrated by the host of cases that exhibit credible coercion. Consider a leading representative case, *Kelsey-Hayes v. Galtaco*,<sup>62</sup> involving a three-year requirements contract for the supply of brake parts, which the buyer assembled and sold downstream to the big automakers. Two years into the contract, in the presence of mounting losses, the seller threatened to shut down its operations unless a 30% price increase was agreed upon. The buyer acquiesced. A month later, as losses kept increasing, the seller demanded an additional 30% increase, to which the buyer again acquiesced. The buyer eventually refused to pay any increment above the original price.

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between opportunistic and nonopportunistic modifications lies in the promisor’s reasons for agreeing to the modification.”); Robert A. Hillman, *Policing Contract Modifications under the UCC: Good Faith and the Doctrine of Economic Duress*, 64 Iowa L.Rev. 849, 880-84 (“the issue of free assent is at the core”).

<sup>61</sup> “Duress is tested, not by the nature of the threat, but rather by the state of mind induced thereby in the victim.” *Wolf v. Marlton Corp.*, 154 A. 2d 62 (NJ 1959).

<sup>62</sup> *Kelsey-Hayes Company v. Galtaco Redlaw Casting Corp.*, 749 F.Supp. 794 (E.D. Mich 1990).

In deciding not to enforce the modification, the court discusses exclusively the question of the adequacy of damages. The court points out that the buyer would have suffered a significant harm if the brake parts were to be delayed, as it would have to delay its own obligations to the automakers, which could potentially “halt production of a vehicle line [and] ... injure its business reputations and subject it to large monetary damages”.<sup>63</sup> This observation leads the court to conclude that the buyer was under extortion and duress, and to refuse to enforce the modified price.

The court overlooks the question of the credibility of the seller’s threat. The facts of the case do indicate, however, that in all likelihood the seller’s threat was credible. The fact that the seller was losing money was uncontested. Its board passed a final decision to discontinue its entire operations *prior* to the modification, and indeed it shut down after the termination of the contract. The departure of other customers increased the burden of fixed costs. In fact, it is quite clear that the seller remained in operation solely to perform the modified obligations under this contract and would have shut down but for the price modification.

According to the analysis in this paper, given the credibility of the seller’s demand, enforcing the modification would have been in the *buyer’s* ex-ante interest. In the presence of a credible threat to breach, the inadequacy of remedies—which the court emphasizes—only reinforces the case *in favor* of enforcement. Had the seller anticipated that the court would strike down the modification, the seller would not have performed its obligations, causing the buyer a significant loss.

*Kelsey-Hayes* is not unique in ignoring the credibility issue. Courts regularly focus solely on the buyer’s perspective, exploring whether remedies would have been adequate. For example, in the case-book favorite *Austin v. Loral*,<sup>64</sup> the court is split on the issue of adequacy of damages, with a majority holding that, due to absence of substitute performance and the general inadequacy of remedies, the buyer was under duress and the modification is unenforceable. Both the majority and

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<sup>63</sup> 749 F.Supp. 798.

<sup>64</sup> *Austin Instrument, Inc. v. Loral Corp.*, 272 N.E.2d 533 (NY 1971).



the dissent agree, however, on the methodology, namely that enforcement should depend strictly on the issue of duress. It must be shown that “the threatened party could not obtain the goods from another source and that the ordinary remedy of an action for breach of contract would not be adequate.”<sup>65</sup> Neither examines the credibility issue, on which the decision should have, ideally, turned.<sup>66</sup> Thus, if indeed Austin’s threat was credible, Loral—or a party who is similarly inadequately protected by legal remedies—would be worse off under the court’s decision not to enforce the modified agreement.

To be sure, even while failing to address the credibility condition courts might nevertheless “accidentally” arrive at the correct outcome. We saw that when a threatened party is imperfectly informed about the factors that affect the credibility of the modification demand, a modification might be agreed upon in circumstances where the demand was not credible. In these situations, non-enforcement would be in the interest of the threatened party. Courts, even when focusing on the adequacy of damages issue, may correctly decide not to enforce the modification. For example, in *Alaska Packers v. Domenico*,<sup>67</sup> the sailors’ threat to stop work unless their wages were increased was, by standard accounts, not credible. Non-enforcement of the modified wage agreement would not, under these accounts, have resulted in work stoppage.<sup>68</sup>

## **B. The “Unanticipated Circumstances” Test**

While modification doctrine is usually subsumed by the issue of coercion, there are instances in which courts apply a different test of “unanticipated circumstances”, which focuses on factors that

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<sup>65</sup> 272 N.E.2d, at 535.

<sup>66</sup> From the reported facts, whether or not Austin’s threat to breach was credible is ambiguous. The seller claimed, and the majority in the lower court confirmed, that it suffered a cost increase. *See Austin Instrument v. Loral Corp.*, 316 N.Y.S.2d 528, 530 (1970). Further, it is reported that following its modification demand but prior to Loral’s acquiescence, Austin indeed ceased delivery. *See* 272 N.E.2d, at 534. It might still be argued that Austin, a solvent company, would have been able to afford a fully compensatory expectation remedy. It is clear, however, that the answers to these issues did not appear relevant to the judges in deciding whether to enforce the modification.

<sup>67</sup> 117 Fed. 99 (9<sup>th</sup> Cir. 1902). *See also* *Pecos Construction Co. v. Mortgage Investment Co. of El Paso*, 459 P.2d 842 (N.M. 1969) (modification not enforced where money damages would have been inadequate; but seller’s threat to breach was in bad faith, not resulting from losses).

<sup>68</sup> For a different view, suggesting that the sailors’ threat was credible, *see* Bar-Gill and Ben-Shahar, *supra* note 27.

approximate the credibility condition. Courts examine the reasons underlying the modification demand and assess whether the demand was justified. An illustrative case is *Angel v. Murray*,<sup>69</sup> in which a modification was enforced because it was justified by an unanticipated substantial increase in the contractor's costs. While this line of cases shifts the focus to the party who is making the modification demand, it does not, however, tackle the issue of credibility directly. To be sure, the cost increase factor is a major factor affecting the credibility of the threat. But the courts in *Angel v. Murray* and similar cases do not ask the question 'what would the contractor, facing increased costs, have done absent a modification?'<sup>70</sup> Instead, the court followed a methodology of "fairness", looking at the cost increase, and, importantly, at the fact that it was unanticipated at the time of contract formation, as factors that render the modified price "fair and equitable in the circumstances".<sup>71</sup> This methodology, which is often imported through the requirement of "good faith", may lead to undesirable decisions. Modifications resulting from credible cost-driven demands that nevertheless seem unfair would not be enforced.

In a few cases, the credibility test, while not explicitly invoked, in fact underlies the decision. For example, during periods of economic slowdown, courts realize that if parties would be unable to renegotiate terms agreed upon prior to the recession, they would likely breach and suffer bankruptcy, leaving the breached-against party without remedy. One recurring scenario in which such analysis was conducted involves long-term tenants who, in the face of solvency problems, demand a price reduction midway through the lease or else abandon the premises. As one court explained,

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<sup>69</sup> 322 A.2d 630 (R.I. 1974).

<sup>70</sup> Indeed, the contractor in *Angle v. Murray*, in the desire to maintain a long term relationship with the municipality, may well have opted to perform the remaining term on this contract at a loss. His threat to breach, then, was not credible.

<sup>71</sup> A similar approach is applied in construction contracts, when the contractor discovers "unforeseen" quantities of hard rock, which increase its cost of excavation. Courts enforce the resulting modifications. *See, e.g.*, *Watkins & Son, Inc. v. Carrig*, 21 A.2d 591 (NH, 1941); *Brian Construction and Development Co. v. Brighenti*, 405 A.2d 72 (Conn., 1978).

“A lease which provides for too high a rent may be less valuable to the landlord than one providing for a proper rent [ . . . ] They desired that their tenants should continue in business under circumstances which should afford more assurance of success.”<sup>72</sup>

Nevertheless, this understanding is not universal. Other courts, in identical circumstances, refused to enforce the modification, even when the tenant’s threat to breach was clearly credible, and permitted landlords to turn around and sue for the pre-modified rent.<sup>73</sup>

The basic insight that enforcement of the modification may be in the interest of the acquiescing party occasionally surfaces in court decisions. For example, in *Gobel v. Linn*,<sup>74</sup> the court understood that even if the modification results in less favorable terms, it can be beneficial to the acquiescing party, once the alternative—suing an insolvent company—is accounted for. More recently and explicitly, Judge Posner explained that if a party cannot commit to a modification, the modification would not be offered, with the adverse effect of suffering breach and litigation costs.<sup>75</sup>

### **C. The Code’s Approach**

The Uniform Commercial Code has adopted an approach that is seemingly in line with the credibility condition. Under §2-209, modifications need to meet a general test of good faith. Courts are instructed to look at the commercial reasonableness of the modification demand in deciding whether it was “extortionate”. Specifically, “such matters as a market shift which makes performance come to involve a loss may provide [a good faith] reason [to seek modification]”.<sup>76</sup>

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<sup>72</sup> See, e.g., *Jaffray v. Greenbaum*, 20 N.W. 775, 778 (Ia. 1884). See also *Ten Eyck v. Sleeper*, 67 N.W. 1026 (Minn 1896).

<sup>73</sup> See, e.g., *Levine v. Blumenthal*, 186 A. 457 (N.J., 1936) (depression-era store tenant struggled to maintain profits but continued occupancy after landlord conceded a rent reduction; held that the reduction is lacking consideration and the landlord is entitled to recover the entire high rent.)

<sup>74</sup> 11 N.W. 284 (Mich 1882)

<sup>75</sup> *The Selmer Co. v. Blakeslee Midwest Co.*, 704 F.2d 924, 928 (7<sup>th</sup> Cir. 1983). This ex-ante view of the modification doctrine has also been proposed by contract law scholars. See, e.g., sources cited in note 5 *supra*.

<sup>76</sup> UCC §2-209 (cmt 2). See also WHITE & SUMMERS, 1 UNIFORM COMMERCIAL CODE 44-45 (4<sup>th</sup> ed., 1995) (“courts should not uphold such modifications unless there is some recognized commercial practice that sanctions them in the particular trade.”)

To the extent that the commercial reasonableness test focuses solely on such matters that affect the credibility of the threat to breach, it is indeed optimal. However, in applying this provision, courts have required, as a condition for enforcement, another element, “honesty in fact”, which looks at whether the modification was extorted by coercive conduct. Even if circumstances change to involve a loss, the resulting modification cannot be enforced if it is extracted by threats.<sup>77</sup> Indeed, “honesty in fact” depends on the identity of the *threatened party*—whether it is a merchant or a consumer.<sup>78</sup> Two threats of identical credibility, issued in identical circumstances, one to a merchant and the other to a consumer, would be characterized differently due to the different set of alternatives these parties might have, further demonstrating the doctrinal prevalence of the coercion approach.

The failure to consider the ex-ante view further manifests itself by the requirement that a party who is coerced into a modification agreement must “protest” it and put the demanding party “on notice” of its intentions to retract from the modification ex-post.<sup>79</sup> Surely, such notice would indicate to the threatening party that the modification might not be enforced, thereby inducing him to breach.

## VI. CONCLUDING REMARKS

This paper has demonstrated the importance of the credibility condition for modification doctrine. When a court must decide whether to enforce or rather rescind a modification (or an initial contract) entered into under threats, questions of duress, coercion and fairness, which are currently viewed as critical to this determination, should be ignored. Focusing on these questions will only

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<sup>77</sup> The leading case applying this two-part test is *Roth Steel Products v. Sharon Steel Corp.* 705 F.2d 134, 147-8 (6<sup>th</sup> Cir. 1983). Johnston, *supra* note 5, at 379, argues that this case demonstrates the Code’s willingness to enforce a modification when circumstances change. Our understanding of the case is different. The court indeed confirms that “increased costs made performance come to involve a loss”, but nevertheless ruled that the modification was ineffective because it was extracted by a refusal to perform under the original terms, violating the honesty requirement. In a footnote to the decision, the court acknowledges that this good faith or honesty-in-fact requirement is equivalent to the coercion test under the duress doctrine. *See* footnote 31, at p. 148. *See also* Farnsworth, *supra* note 5 at 282 (the Code’s modification doctrine is “remarkable consistent with the liberalized rules on duress”).

<sup>78</sup> *See, e.g.,* Palmer v. Safe Auto Sales, 452 NYS 2d 995 (1982).

<sup>79</sup> United States of America for the Use and Benefit of Crane Co. v. Progressive Enterprises, Inc., 418 F.Supp. 662 (E.D.Va, 1976). *But see* T&S Brass and Bronze Works, Inc. v. Pic-Air Inc., 790 F.2d 1098 (4<sup>th</sup> Cir., 1986).

hurt the threatened party. If (and only if) the threat was credible, the concession that was induced by it should be enforced.

The analysis in this paper showed that the development of the modification doctrine in the common law, which substituted the rigid no-enforcement approach with a liberal duress principle, is of little practical consequence. Since a threatened party will agree to a modification only if other alternatives are inferior, the duress requirement would be fulfilled in every modification case, rendering modifications effectively unenforceable. In general, and apart from a few celebrated exceptions, contract law's modification doctrine is not optimal. Under the credibility test developed here, modifications would be enforced more often than under current doctrine.