FOREWORD: THE ECONOMICS OF CONTRACT LAW

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Before this decade, contract law received little attention from economists compared to other common law fields such as property and tort law. In 1979, Kronman and Posner "were struck by the paucity of economic writings on contracts."1 Since that time, the situation has changed dramatically. The development of economic methodologies appropriate for studying bargaining and the strategic use of private information has led economists to take a greater interest in the subject of contract law.

The articles in this issue are samples from the burgeoning field of the economics of contract law. They demonstrate that lawyers and economists can bring economic models to bear on quite specific issues of contract law to offer normative guidance regarding the structure of efficient contract law. The success of the symposium and the quality of the articles offer hope that this field will continue to flourish.

The articles cover a fairly narrow range of contract law issues. The second through sixth articles all address topics involving remedies. Two of these look at the optimal remedies to be provided by contract law, and the other three are concerned with remedies selected prospectively by the parties. This

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choice of topics reflects the balance of topics in the literature. It is a popular choice because the bargain that establishes the contract is multidimensional; it is haunted by the specter of unforeseen contingencies that cannot be easily modeled. In contrast, the decision to breach occurs after such contingencies have been resolved. Breach, settlement, and litigation involve a manageable number of variables that can be fitted into standard economic models of bargaining. Hence, there is a tendency to truncate the contractual relationship and examine it beginning from the point of breach.

There are four other articles in this issue. The first analyzes contract modification and the hold-up game. It examines what sort of contract modifications courts should enforce in the absence of consideration. Two other articles discuss the application of economic analysis to contracts in specific commercial settings: trade secret licenses and the formation of physicians' group practices. The final article focuses on the impact of discovery rules on settlement of litigation. The articles are described below in the order of placement in this issue.

The Graham and Peirce article is motivated by the venerable contract case of Alaska Packers' Association v. Domenico. The case concerned a labor contract modified by an employer under duress. The crew of a fishing vessel demanded higher wages and threatened to quit after they were at sea and it was impossible to find a replacement crew. This type of contract modification under duress has been labeled "the holdup game." The court thwarted the attempted hold up by refusing to honor the modification on grounds of lack of consideration.

A simple rule stating that no contract modifications will be upheld unless supported by consideration has not proved suitable. A substantial literature has arisen in law and economics pointing out that breach can sometimes be justified because of adverse random events. The threat of breach in such circumstances leads to efficient contract modification, which may be unsupported by consideration.

The authors argue that contract law remedies are inadequate to deter the hold-up problem completely. Incomplete deterrence is desirable, however, since complete deterrence would have a chilling effect on legitimate contract modifications motivated by unforeseen problems. In addition, the authors demonstrate conditions under which the contract law requirement that modifications must be equitable is efficient. Their argument is based on a presumed equivalence between equitable modifications and modifications

4. Alaska Packers' Ass'n v. Domenico, 117 F. 99 (9th Cir. 1902).
5. Id. at 101.
6. Id. at 102.
that, ex ante, the parties would have judged mutually advantageous responses to certain contingencies.

Renegotiation and Specific Performance\textsuperscript{7} by Lewis, Perry, and Sappington, promotes a greater role for specific performance than that envisioned by the Uniform Commercial Code. Demonstrating conditions under which specific performance is a more efficient remedy for contract breach than the award of money damages, the article explores optimal breach\textsuperscript{8} in a model in which the seller's opportunity cost of supplying products to a buyer fluctuates after the contract is signed. The buyer and seller initially select a fixed payment and quantity of goods to exchange. If the seller's cost is unexpectedly low, the parties may negotiate additional sales, and if cost is unexpectedly high, they may negotiate a reduction in sales. If no adjustment can be negotiated, either party may call for specific performance.

Lewis, Perry, and Sappington show that for a broad range of costs, no adjustment occurs. In their model, only the seller observes the true production cost, and the buyer is skeptical of the seller's claims that cost changes necessitate renegotiation. Only when the departure of actual cost from expected cost is extreme do the parties adjust the quantity to be delivered.

It is commonplace in law and economics to suppose that efficient contracts allocate residual property rights in a transaction to the party that can use the property most efficiently if an unforeseen contingency arises. Given that perspective, a typical provision in loan contracts securing the creditor's position through the right to seize the asset if the borrower does not repay appears anomalous. Surely in most cases the borrower is in a position to use the property more efficiently than the creditor. In Default, Foreclosure, and Strategic Renegotiation,\textsuperscript{9} Kahn and Huberman characterize the role of security terms in loan contracts in assuring efficient adjustment to a borrower's financial plight.

In their model, the borrower is an entrepreneur who uses the borrowed funds to invest in a project. The value of the project depends both on the effort of the entrepreneur and on random factors beyond anyone's control. Both effort and random events are observed by the entrepreneur and the creditor, but they cannot be verified in court. Thus, the parties cannot make the level of effort contingent on the value of the project, although it would promote efficiency if they could.

The security provision offers an opportunity to surmount this difficulty. When the value of the project after investment is less than the sum borrowed, the entrepreneur threatens to default. Since the asset is more valuable in the hands of the entrepreneur, the creditor is willing to renegotiate the loan,

\textsuperscript{7} Lewis, Perry & Sappington, Renegotiation and Specific Performance, LAW & CONTEMP. PROBS., Winter 1989, at 33.
\textsuperscript{8} See infra note 11 and accompanying text.
\textsuperscript{9} Kahn & Huberman, Default, Foreclosure, and Strategic Renegotiation, LAW & CONTEMP. PROBS., Winter 1989, at 49.
indirectly making the payment contingent on the unverifiable state of the random events. The authors show that this device is sufficient to induce an efficient level of effort from the entrepreneur.

Recent work by Aghion and Bolton\(^\text{10}\) raises concern that liquidated damage clauses in long-term sales contracts may have an entry-deterring effect. In *The Design and Duration of Contracts: Strategic and Efficiency Considerations*,\(^\text{11}\) Masten and Snyder challenge this view, arguing that such contract terms have efficiency advantages that are rarely compromised by anticompetitive effects. The notion of optimal breach is of fundamental importance to both of these theories; thus a brief digression on optimal breach follows.

When parties enter a long-term contract they are aware that unforeseen developments may render performance by the seller too costly to complete. Likewise, contingencies could eliminate all opportunities for the buyer to make profitable use of the product or service to be purchased. In an ideal world, the parties would plan for such events and explicitly list appropriate responses in their contract. Bounded rationality\(^\text{12}\) and limits to the effectiveness of courts diminish the possibility of achieving this ideal. Consequently, random events can produce a situation in which breach is the most efficient choice, in the sense of maximizing the sum of the buyer’s and seller’s profit. The question of whether contracts and contract law provide the proper incentives for breach is the question of optimal breach.

In the Masten and Snyder model, efficient liquidated damage clauses simply replicate the expectation damage measure assuring optimal breach. In the Aghion and Bolton model, liquidated damages in the case of buyer breach are set in excess of expectation damages in order to diminish the bargaining power of a third-party seller. The effect of the damage clause is to deter entry by other firms into the market. Masten and Snyder argue that the conditions necessary for the Aghion and Bolton result are unlikely to be satisfied.

Institutional as well as economic factors support Masten and Snyder’s contention. They point out that the liquidated damage schedule necessary to achieve entry deterrence is apt to be labeled a penalty by the courts, leaving it unenforceable. Furthermore, the possibility that one seller might subcontract with the other or assign the contract to a third party circumvents the impact of the damage clause. Finally, in the absence of entry barriers, the condition that the potential entrant has bargaining power is not satisfied.

Leitzel’s article, *Reliance and Contract Breach*,\(^\text{13}\) notes the differences between the traditional legal and economic treatments of reliance

\(^{10}\) Aghion & Bolton, *Contracts as a Barrier to Entry*, 77 AM. ECON. REV. 388 (1987).


\(^{12}\) The term “bounded rationality” is used to designate rational choice that takes into account the cognitive limitations of the decisionmaker—limitations of both knowledge and computational capacity. 1 H. Simon, *The New Palgrave: A Dictionary of Economics* 266 (J. Eatwell, M. Milgate & P. Newman eds. 1987).

expenditures and their protection in the event of breach. Perhaps the most substantial difference is that economic models often interpret the expectation and reliance damage measures as protecting all reliance, whereas legal treatments generally note that only reasonable reliance is protected. Attempting to incorporate a reasonableness standard into an economic model of reliance protection is not a straightforward procedure. There is a circularity inherent in reasonableness standards: Courts protect the amount of reliance that a reasonable party would select, but a reasonable party will select the amount of reliance that the courts will protect.

Leitzel shows that in standard economic models of contracting, this circularity can be avoided with an appropriate reinterpretation of the expectation damage measure. He goes on to show that the appropriate expectation damage measure assures both efficient reliance and efficient breach.

Chapman and Meurer14 examine the choice of remedies for breach of warranty in sales contracts. They have noted a surprising prevalence of replacement warranties over refund warranties. This prevalence is surprising because a consumer could take a refund and purchase a replacement, whereas converting a replacement into cash could be quite difficult. The standard microeconomic argument is that the cash remedy is more efficient than the in-kind remedy. The authors offer two explanations for the prevalence of replacement remedies. First, the replacement warranty offers a means of discriminating among customers who differ in terms of their ability to use the product properly. Second, a replacement warranty encourages the buyer and the seller to make efficient transaction-specific investments.

This article also explores the law concerning breach of warranty, and argues that contracts calling for exclusive replacement remedies sometimes cannot be taken at face value. A seller may breach the obligation to replace a defective product, choosing to pay damages instead. In industrial contracts, a seller may refuse to provide a replacement when this refusal is efficient because of changed market conditions. In consumer markets, such breach is not likely to be profitable because of a seller's concern about its reputation, so consumers can take replacement provisions at face value.

In An Analysis of Discovery Rules,15 Sobel pursues an issue in the economics of civil procedure: how the rigor of discovery rules affects the probability that a dispute will be settled out of court. He finds that liberal discovery rules reduce the probability of trial, but warns that the rules may not lead to "fairer" settlements. In this context, fairer settlements are those that would have been reached if the parties were completely informed ab initio. Difficulty arises because a party may settle before becoming informed in order to avoid discovery costs.

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The link between this work and the economics of contract law is not readily apparent, but it is profound. The articles by Graham and Peirce,\textsuperscript{16} Lewis, Perry, and Sappington,\textsuperscript{17} Masten and Snyder,\textsuperscript{18} and Chapman and Meurer\textsuperscript{19} all build models incorporating one similar feature. In each model, a contingency arises leading a party to contemplate breach. The two parties then attempt to negotiate a settlement. In all four models, at least one of the parties holds private information relevant to the determination of an efficient adjustment. This private information spawns inefficient adjustment and possibly litigation.

The question arises as to why private information is featured so prominently in these models. Why will liberal discovery rules not create a world in which fully informed parties adjust optimally to contingencies? Sobel's paper suggests that the cost of discovery undermines efficiency. And his model points economists in a direction for further inquiry regarding this issue.

A recurrent theme in the economics of contracts is how to draft contracts that offer both protection against risk and productive incentives to the parties.\textsuperscript{20} A producer in isolation appropriates the full benefit of his or her labor, but is also maximally exposed to risk. When agents pool their earnings, their vulnerability to idiosyncratic risk is reduced, but their productive incentives are attenuated.

Palay\textsuperscript{21} studies this trade-off in the case of physicians. A physician makes an investment in very specialized human capital: a medical specialty, a reputation for quality care, and a stock of patients. The value of this investment is subject to idiosyncratic risk that the physician would like to avoid.

Normal strategies of risk avoidance are not available to physicians. Because of institutional and moral-hazard constraints, they cannot sell shares in their practices. They cannot diversify into multiple specialties or professions. But they can pool their revenues to avoid risk. Health maintenance organizations ("HMO's") and independent physician associations are means of achieving this goal.

While team production is effective in reducing risk to producers, it also tempts them to shirk, invites bickering over sharing rules, and is vulnerable to desertion. Palay argues that various social controls ease the shirking problem. The problems of exit and profit sharing are solved by creating firm-specific capital that is shared by the producers. For example, the reputation of an

\textsuperscript{16} Graham & Peirce, \textit{supra} note 3.
\textsuperscript{17} Lewis, Perry & Sappington, \textit{supra} note 7.
\textsuperscript{18} Masten & Snyder, \textit{supra} note 11.
\textsuperscript{19} Chapman & Meurer, \textit{supra} note 14.
HMO is valuable to a physician only as long as he or she is associated with that HMO.

Like the Masten and Snyder piece, the Note entitled Antitrust Restrictions on Trade Secret Licensing: A Legal Review and Economic Analysis22 explores contractual terms that might either promote efficient exchange or advance anticompetitive goals. Trade secret transfers can easily generate thorny negotiations. The seller must convince the buyer that the property in question is valuable. But describing a trade secret effectively transfers the property. Trade secret law offers some relief from this dilemma by imposing a duty on prospective licensees to maintain confidences arising from license negotiations. Furthermore, problems are created by the need for the licensor to provide technical advice on the implementation of the secret information, by the need to bundle different trade secrets and patents into a single license, and by the difficulty of defining the scope of a trade secret in a rapidly developing field of technology.

All of these difficulties, which are unique to intellectual property licenses, promote extensive long-term contractual relations between licensors and licensees. The likelihood of unforeseen developments affecting such long-term relationships calls for ancillary terms designed to share risk efficiently and adjust to change. However, courts must be vigilant against the abuse of trade secret licenses by parties interested in achieving horizontal restraints in an industry. The Note demonstrates that the twin goals of promoting efficient diffusion of trade secrets and avoiding horizontal restraints to competition are difficult to achieve, because similar license terms could achieve either efficiency goals or anticompetitive restraints.

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