1-1-1985

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California Law Review

VOL. 73 | OCTOBER 1985 | NO. 5

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The conventional analysis of contracts holds that the purpose of damages is to compensate the victim of breach for his injury. This purpose, in turn, is normally to be accomplished by awarding expectation damages—that is, the amount required to put the injured party where he would have been if the contract had been performed.[1] The goal, compensation, and the means, expectation damages, are so ingrained in contract law as to seem self-evident. On closer analysis, however, the meanings of injury, compensation, and expectation are ambiguous, and, partly for that reason, it is far from clear that expectation damages are always compensatory in nature. The purpose of this Article is to consider the meanings of these critical concepts, to develop certain theoretical and actual measures of contract damages, and to analyze the relationship between these measures and the ends of fairness and economic efficiency. Among the propositions we seek to establish are the following:

(1) Under certain conditions, reliance and expectation damages will be virtually identical.

(2) In the typical case in which the two measures diverge, the use of expectation damages can be defended on grounds of fairness and efficiency.

(3) In most cases, the major variables that determine the best method for measuring expectation damages are market structure and business conduct.

(4) A distinction must be drawn between the concept that expectation damages should place the injured party where he would have been if the contract had been performed, and the concept that expectation damages should replicate the damage term the parties would probably have agreed to if they had bargained under ideal con-

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An earlier version of this paper was presented at the Stanford Law and Economics Seminar. We are indebted to Mitchell Polinsky, Alan Schwartz, and the participants at that Seminar for their valuable comments.

1. *See, e.g.*, RESTATEMENT (SECOND) OF CONTRACTS § 344(a) (1981).

ditions. In most cases, damages under the two concepts will be virtually identical, but in some cases they will diverge.

Throughout, we will give particular attention to the vexing issue, under what circumstances is it appropriate to compensate a victim of breach for lost volume?

I
THE MEANING OF INJURY AND COMPENSATION

In a contract setting, the term "injury" can have two different meanings. One meaning is being worse off than if the contract had been performed. Another meaning is being worse off than if the contract had not been made.[2] The interests invaded by these two injuries are known as the expectation and reliance interests, respectively.

The two distinct meanings of injury correspond to two distinct purposes of damages for breach of contract. Expectation damages are designed to protect the expectation interest, and have the purpose of placing the victim of breach in the position he would have been in if the other party had performed. If this purpose is achieved, the potential victim of breach is equally well off whether there is performance, on the one hand, or breach and payment of damages, on the other. In contrast, reliance damages are designed to protect the reliance interest, and have the purpose of restoring the victim of breach to the position he would have been in if the contract had not been made. If this purpose is achieved, the potential victim of breach is equally well off whether there is no contract with the breaching party, on the one hand, or contract, breach, and payment of damages, on the other.

In our legal system compensation is measured in money. We will use the term "perfect compensation" to mean a sum of money sufficient to make the victim of an injury equally well off with the money and with the injury as he would have been without the money and without the injury. In this sense, compensatory damages are the money equivalent of the injury. The idea of a money equivalent to injury can be clarified with help from economic theory. Economists measure the well-being of individuals by the amount of satisfaction they enjoy, and the well-being of firms by their profits. Compensation for an injury is perfect if it enables the victim to enjoy the same level of satisfaction or profits as would have prevailed without the injury.

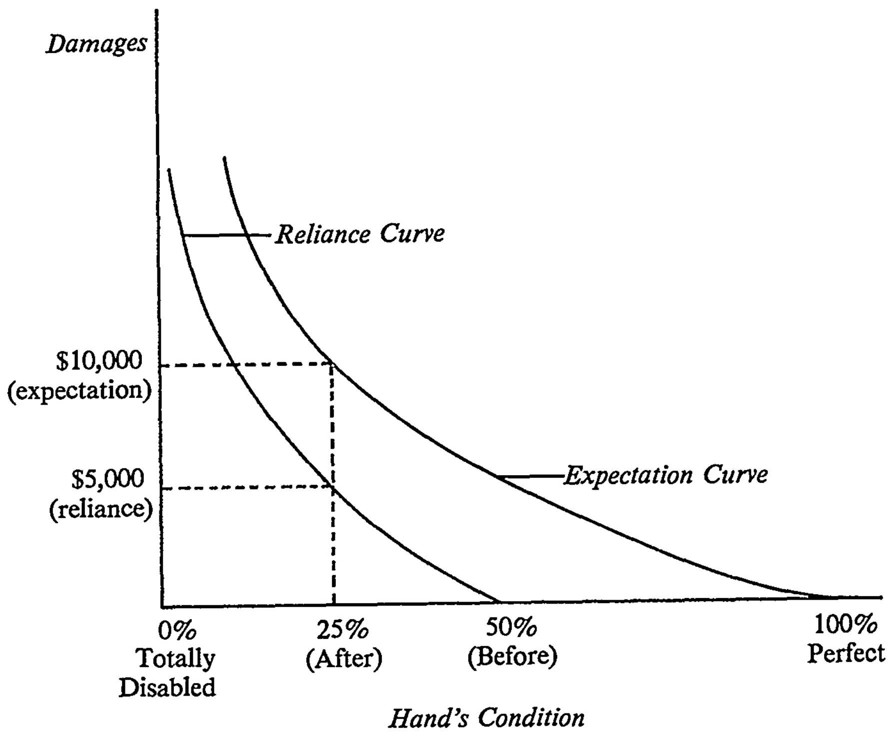
Computing compensatory damages involves comparing the victim's uninjured state with the injured state in order to estimate how much money is needed to make up the difference. Because there are two different conceptions of the uninjured state in a contract setting, there are also

2. *See id.* § 344(a), (b).

two different conceptions of compensation. Under the expectation conception, compensation is the amount required to put the victim in a state just as good as if the breaching party had performed the contract. Under the reliance conception, compensation is the amount required to put the victim in a state just as good as if he had not made the contract with the breaching party.

These concepts can be illustrated by an economic analysis of the well-known case of *Hawkins v. McGee.*[3] To summarize the facts, a physician induced a boy to submit to an operation by promising to make the boy's injured hand perfect, but the actual operation made the hand irreversibly worse. The relationship between the extent of the injury and compensatory damages are represented by the graph in Figure 1. The

Figure 1: Compensation in Hawkins v. McGee



horizontal axis in this Figure indicates the range of possible conditions of the hand, which vary from totally disabled to perfect. The vertical axis indicates dollar amounts of damages. The curved lines on the graph delineate the relationship between the extent of the disability and the amount of money needed to compensate for it. These curves are con-

3. 84 N.H. 114, 146 A. 641 (1929).

structed so that a change in the patient's condition from one point to another on the same curve leaves his welfare unchanged, because a change in disability is exactly offset by a change in money compensation.

Consider first expectation damages in *Hawkins v. McGee,* which are graphed by the curved line labeled "expectation." The physician promised to make the boy's hand perfect. Under the expectation conception, the uninjured state is the condition the patient would have been in if the physician had performed his promise. If the promise had been performed, the patient would have received a perfect hand and no compensation. Assume that after the operation the patient's hand was 25% perfect. Expectation damages are the amount of money needed to compensate for the shortfall between the 100% perfect hand that was promised and the 25% perfect hand that was achieved. To measure these damages, locate the 25% point on the horizontal axis, move vertically up to the curve labelled "expectation," and then move horizontally over to the vertical axis to determine the corresponding dollar amount, which is $10,000. By construction, the patient is as well off with $10,000 in damages and a 25% perfect hand as with no damages and a 100% perfect hand. Thus expectation damages equal $10,000, because this sum of money compensates for the shortfall between actual and promised performance. (Note that the expectation curve and the resulting $10,000 figure illustrate the logic of compensation, not the damages actually computed in *Hawkins v. McGee.*)

Now consider reliance damages, which are graphed by the curved line labeled "reliance." Under the reliance conception, the uninjured state is the condition in which the patient would have been if he had not made the contract with the breaching party. Assume that if there had never been a contract the patient would have had a 50% perfect hand, whereas after the operation the hand was 25% perfect. Reliance damages are the amount of money needed to compensate for the deterioration of the hand from 50% to 25%.[4] Like the expectation curve, the reliance curve is constructed to represent the relationship between the extent of the disability and the amount of money needed to compensate for it. The only difference is that the reliance curve touches the horizontal axis at the point where the hand is 50% perfect, rather than 100% perfect. By following the same steps as in expectation damages, we find that the patient is equally well off with $5,000 in damages and a 25% perfect hand as with no damages and a 50% perfect hand. Thus reliance damages equal $5,000. In short, the formal difference between expectation

4. We assume here that the operation performed by the defendant, Dr. McGee, did not cause Hawkins to lose an opportunity to go to another doctor who would perform the operation successfully. The modification of reliance damages dictated by such a lost opportunity is explained in Section *C* of Part II.

and reliance damages is the baseline against which the injury is measured, where "baseline" refers to the uninjured state.

The compensation curves in Figure 1 are formally identical to indifference curves in consumer theory. An indifference curve is a line connecting all bundles of commodities yielding an equal amount of utility to the consumer. "Utility" is a term of art describing satisfaction or welfare.[5] Perfect compensation is that sum of money that increases the wealth of an injured person just enough to provide the same level of well-being as if he had no injury. The compensation curves in Figure 1 show the damages required for perfect compensation of various degrees of injury. Thus the compensation curves are lines of constant utility, or indifference curves.[6]

This analysis of compensation can be applied to firms by substituting "profit" for "utility." In technical terms, the only change involved is the substitution of profit functions for utility functions; the same graph can be used, with the curves interpreted as lines of constant profit rather than lines of constant utility. Generally, however, it is more illuminating to revise the graph and work with supply and demand curves. That approach is taken in the balance of this Article.

II
BASIC DAMAGE FORMULAS

Under conventional contracts doctrine, protection of the expectation interest requires an award such that the injured party will achieve the level of satisfaction (if a consumer) or profits (if a firm) that would have been achieved if the contract had been performed. Similarly, under conventional contracts doctrine, protection of the reliance interest requires an award such that the injured party will achieve the level of satisfaction or profits that would have been achieved if the contract had never been made. We will refer to these doctrines as the expectation principle and the reliance principle.

In practice, a general inquiry into satisfaction or profits is often infeasible. Therefore, the expectation and reliance principles must be implemented by more specific formulas. In Part II, we delineate five formulas which together cover the great run of cases. We call these the

5. There is a long history of dispute in economics about the interpretation of the utility curve. *See, e.g.*, Stigler, *The Development of Utility Theory*, 58 J. POL. ECON. 307, 373 (1950). For a different view, see Cooter & Rappaport, *Were the Ordinalists Wrong About Welfare Economics?*, 22 J. ECON. LITERATURE 307 (1984).

6. The formal similarity between constant utility and compensatory damages masks some substantive differences between the economic and legal concepts. For example, economists usually measure a consumer's well-being by his individual preferences, whereas measures of value used in law are often standardized and objeetive. *See* Eisenberg, *The Responsive Model of Contract Law*, 36 STAN. L. REV. 1107 (1984). However, these differences do not affect the analysis in this Article.

substitute-price, lost-surplus, opportunity-cost, out-of-pocket-cost, and diminished-value formulas. Almost all of the basic measures currently used by the courts in breach-of-contract cases are variants of these five formulas.

A. Substitute-Price

When a party to a contract breaks his promise, the victim of breach may replace the promised performance with a substitute performance. The *substitute-price formula* awards the victim of breach the cost of replacing a promised performance with a substitute performance. To illustrate, suppose that Apex Ticket Agency offers cinema tickets at the price p_k and that a consumer orders x_k tickets. After Apex breaches, the consumer cannot get equivalent tickets except by paying the high price p_s to Bijou Ticket Agency. The promised performance can be replaced at the cost x_k $(p_s - p_k)$. Accordingly, this is the amount of money that would be awarded as damages to the consumer under the substitute-price formula. (Of course, the parties could be reversed in the example, so that seller had to find a substitute buyer, rather than the buyer finding a substitute seller.)

If a commodity is homogeneous, a substitute performance may be identical to the promised performance. In that case, the substitute price is the actual price of a substitute transaction. To illustrate, the tickets promised by Apex may be identical to those sold by Bijou, in which case the substitute-price formula equals the actual cost of substitution. However, if the commodity is differentiated, rather than homogeneous, so that no perfect substitute exists, the substitute price must be computed by extrapolation from comparable market transactions. For example, the substitute price of a four-door 1957 Chevrolet might be computed by extrapolation from the selling prices of a two-door 1957 Chevrolet and four-door 1956 and 1958 Chevrolets.

B. Lost-Surplus

Usually, each party expects to gain from a contract. The difference between the value that a party places upon what he expects to receive and give up is called surplus. The *lost-surplus formula* awards the victim of breach the surplus that he would have enjoyed if the breaching party had performed.

The surplus that a seller enjoys on the sale of a commodity is normally the difference between the contract price of the commodity and its direct cost. To illustrate, if the cost c of tickets to the Apex Ticket Agency is their wholesale price, and if a consumer promises to purchase x_k tickets at the contract price p_k, then the surplus Apex expects on the contract is x_k $(p_k - c)$. This amount equals the seller's damages under the lost-surplus formula.

Now consider the lost-surplus formula when the roles of the parties are reversed. The surplus that the consumer enjoys on a purchase is normally the difference between the value of the good to him, which is called his willingness-to-pay, and the amount he actually pays.[7] Using the same illustration, assume the consumer would have been willing to pay as much as p_w for each of x_k tickets, and the contract price is p_k. The consumer's expected surplus from the contract with Apex is the difference between what he is willing to pay for the tickets and what the contract requires him to pay.[8] Damages for Apex's breach under the lost-surplus formula therefore would be x_k $(p_w - p_k)$.

C. *Opportunity-Cost*

Making a contract often entails the loss of an opportunity to make an alternative contract. The *opportunity-cost formula* awards the victim of breach the surplus that he would have enjoyed if he had signed the best alternative contract to the one that was breached. To illustrate, assume that a consumer forgoes the opportunity of buying x_k cinema tickets from Bijou at price p_o, and instead contracts to buy x_k tickets from Apex at price p_k. If he is then compelled to purchase at the higher price p_s after Apex's breach, the opportunity-cost formula sets damages equal to x_k $(p_s - p_o)$. In general, if breach causes the injured party to purchase a substitute performance, the opportunity-cost formula equals the difference between the best alternative contract price available at the time of contracting and the price of the substitute performance obtained after breach.

As another illustration, our account of *Hawkins v. McGee* in Part I of this Article implicitly assumed that the operation performed by the defendant, Dr. McGee, did not cause Hawkins to lose the opportunity of having another doctor perform the operation successfully. If such an opportunity were lost, its value would need to be included in the computation of reliance damages. The value of the forgone opportunity depends upon how close to perfection the hand would have been after an operation by another doctor. To illustrate, suppose that another doctor would have restored the hand to the 75% level. The injury from relying on Dr. McGee is then the difference between the 75% level that the other

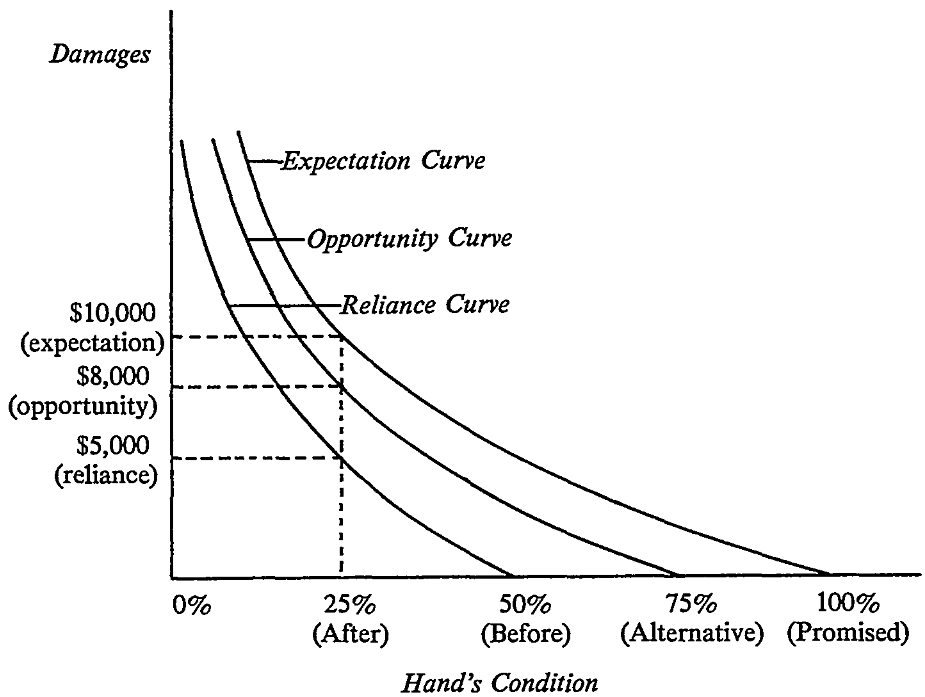
7. For an account of consumer's surplus and its relationship to the expenditure function and demand curves, see H. VARIAN, MICROECONOMIC ANALYSIS 207-13 (1978).

8. In the usual formulation, the willingness-to-pay function, $p_w = p_w(x)$, is the inverse of the demand function. The total willingness-to-pay is thus the integral under the demand curve. The best way to represent these facts is through the use of the expenditure function. *See* Cooter, *A New Expenditure Function*, 2 ECON. LETTERS 103 (1979); Diamond & McFadden, *Some Uses of the Expenditure Function in Public Finance*, 3 J. PUB. ECON. 3 (1974).

doctor would have provided and the 25% level achieved by Dr. McGee, not the difference betrween the 50% level before the operation by Dr. McGee and the 25% level after it. In general, when reliance causes an opportunity to be lost, the lost opportunity provides a higher baseline for measuring the injury than the actual state before the agreement, and the higher baseline in turn results in higher damages.

To depict reliance damages under the opportunity-cost interpretation, it is necessary to add another curve to Figure 1. The additional curve, as depicted in Figure 2, touches the horizontal axis at the 75% point, and, as with the first two curves, it is constructed so that every point on it represents the same level of welfare. Consequently, a change in the hand's condition represented by a move along the new curve is exactly offset by the corresponding change in damages. Once the new curve is drawn on the graph, the value of the lost opportunity is read off the graph by moving vertically from the 25% point on the horizontal axis up to the intersection with this new curve, and then moving horizontally to the intersection with the vertical axis. Following these steps, the opportunity-cost measure of damages is $8,000, which is less than expectation damages ($10,000) and more than reliance damages stripped of the opportunity cost ($5,000).

Figure 2: Opportunity Cost in Hawkins v. McGee



D. *Out-of-Pocket-Cost*

Action in reliance on a contract may involve an investment that cannot be fully recouped in the event of breach. The *out-of-pocket-cost formula* awards the victim of breach the difference between (1) the costs incurred in reliance on the contract prior to breach, and (2) the value produced by those costs that can be realized after breach. To illustrate, assume that a consumer breaches an agreement to buy x_k tickets from Apex at price p_k. In reliance on the contract, Apex purchased x_k tickets at the wholesale price c_i. At the time of breach, the spot price p_s, at which Apex can resell tickets, has fallen below the wholesale price c_i paid by Apex. Apex's out-of-pocket cost is $x_k (c_i - p_s)$. Reversing roles, suppose the consumer contracts with Apex for theater tickets and then contracts with a baby-sitting service for the evening of the performance. Apex breaches, and the consumer therefore stays home that evening. The consumer's out-of-pocket cost is the cost of cancelling the baby-sitting contract.[9]

E. *Diminished-Value*

When performance of a contract is partial or imperfect, the value received is less than promised. The *diminished-value formula* awards the victim of breach the difference between (1) the post-breach value of a commodity that was to be received or improved under the contract, and (2) the value the commodity would have had if the contract been properly performed. To illustrate, suppose that Seller promises Buyer to customize a boat with an Alpha compass, which will give the boat a market value of m_p. Instead, he delivers a boat with a Beta Compass, which causes the boat to have a lower market value of m_d. The amount that would be awarded to Buyer under the diminished-value formula is $m_p - m_d$, or the difference between the value of the boat promised and the value of the boat delivered.

F. *Add-ons and Offsets*

In some cases, special circumstances require amending a basic formula to include additional terms. For example, a breach may create an opportunity for the injured party to engage in a surplus-producing transaction that would not have been possible but for the breach. To illustrate, if in the theater-ticket example the concert is sold out, breach by the consumer frees up x_k tickets, which Apex then may sell to someone else at the spot price p_s. In such circumstances the lost-surplus formula must be corrected to avoid overcompensation relative to the

9. If the consumer paid c_i in advance for the baby-sitting services, and a refund of p_s is recoverable after cancelling, then the out-of-pocket cost to the consumer is $c_i - p_s$.

expectation principle or the reliance principle.[10] Alternatively, a breach may result in losses beyond those contemplated by the basic formulas. For example, suppose *A* breaches a contract to sell to *B* a machine that *B* intends to use on his assembly line. The substitute-price formula must be corrected in such circumstances in order to avoid undercompensation, because *B*'s loss includes not only the additional cost of a substitute machine, but also the profits lost by disruption of his assembly line while obtaining a substitute.

TABLE 1: DAMAGE FORMULAS

Formula	Breaching Party	Formulas
Substitute-Price	buyer	contract price − spot price ($p_k - p_s$)
	seller	spot price − contract price ($p_s - p_k$)
Lost-Surplus	buyer	contract price − cost ($p_k - c$)
	seller	willingness to pay − contract price ($p_w - p_k$)
Opportunity-Cost	buyer	forgone price − spot price ($p_o - p_s$)
	seller	spot price − forgone price ($p_s - p_o$)
Out-of-Pocket-Cost	buyer	costs incurred − realizable value ($c_i - v_r$)
	seller	costs incurred − realizable value ($c_i - v_r$)
Diminished-Value	buyer	promised value − received value ($v_p - v_r$)
	seller	promised value − received value ($v_p - v_r$)

When computing damages, courts usually use some variant of one of the five basic formulas, which are summarized in Table 1. However, the circumstances in which each formula will be truly compensatory are not obvious. To explore these circumstances, which is the task of the next Part, we must focus on the central points and omit distracting details. We have discussed five damage formulas, as well as add-ons and offsets, in the context of breach by the buyer and the seller. A complete survey of all these permutations in different circumstances would unduly expand this Article, so for the most part we will restrict our discussion to the first four formulas and the case of buyer's breach. Generally speaking, the principles developed in this analysis can be extrapolated to cover the

10. The lost-surplus formula, corrected for the offset, awards damages equal to the surplus expected on the contract less the surplus made possible by the breach. In our example, corrected damages equal $x_k(p_k - c) - x_k(p_s - c) = x_k(p_k - p_s)$. Notice that in this example the corrected lost-surplus formula collapses into the substitute-price formula.

omitted issues—seller's breach, the diminished-value formula,[11] add-ons, and offsets.

III
COMPENSATORY DAMAGES AND MARKET STRUCTURE

As explained in Part I, the expectation and reliance conceptions of damages describe the uninjured state differently. Under the expectation conception, the uninjured state is that which would exist if there were performance, whereas under the reliance conception the uninjured state is that which would exist if there had been no contract. If the victim's level of satisfaction or profits in the uninjured state is the same under both conceptions of injury, then damages under the expectation principle equal damages under the reliance principle. Otherwise, the two conceptions of compensation yield different amounts of damages

Part III will explore the selection of the correct formula to measure damages under the expectation and reliance principles, and the conditions under which expectation and reliance damages diverge. Intuitively, the selection of the correct formula, and the convergence or divergence of expectation and reliance damages, might seem to depend on a number of variables: the position of the injured party (buyer or seller); the nature of the injured party (consumer or merchant); the nature of the product (goods or services); the motive for contracting (allocating risk of price changes or assuring a reliable supply); the manner in which a firm conducts its business (advertising or no advertising, mark-up or marginal-cost pricing, large inventory or small inventory); and the structure of the market (competitive or noncompetitive). We will show that the last two variables—business conduct and market structure—are fundamental to the choice of a proper damage formula. Part III, Section *A*, explores the problem in perfectly competitive markets by examining two models of business conduct: a traditional model, and a non-traditional model that we call the model of statistical planning. Part III, Section *B*, explores the problem in imperfectly competitive markets. Again, we use two models of business conduct: a traditional model, and a non-traditional model that we call the fishing model. In both Section *A* and Seetion *B*, we will give particular attention to the question of when, if ever, it is appropriate to employ a damage formula that compensates the victim of breach for lost volume.

11. For a discussion of diminished-value damages, see Eisenberg, *supra* note 6, at 1156-65.

A. Perfectly Competitive Markets

1. The Traditional Model of Business Conduct in Perfectly Competitive Markets

According to the traditional model of business conduct, a seller in a perfectly competitive market produces until his incremental cost equals the market price of the good, and buyers purchase all of his production. Consequently, the market clears in each period and everyone buys and sells as much as he wants. In a perfectly competitive market, which, by definition, has many similar buyers and sellers, anyone who signs a contract could have contracted with someone else on the same terms. If, under such circumstances, the party injured by a breach had not contracted with the breaching party, it would have been both possible and advantageous to contract with someone else on the same terms as the breached contract. But for having made the breached contract, the injured party presumably would have made such an alternative contract.

If the injured party had made the forgone contract instead of the actual contract, it is possible that the forgone contract would also have been breached. In many cases, however, the probability of breach is small. As the probability of breach approaches zero, the expected value of a contract approaches the value of performance. This in turn implies that the opportunity cost of a forgone contract approaches the value of performance of a contract that is made. The value of performance of a contract that is made determines expectation damages, and the opportunity cost of a forgone contract determines reliance damages. Thus, if a market is perfectly competitive and the parties' conduct is described by the traditional model of business conduct in such a market, reliance damages approach expectation damages as the probability of breach approaches zero.[12]

This analysis can be illustrated by two examples.

> *Example A.* Buyer wants to purchase a customized boat. The contract market for customized boats is competitive (many dealers and many buyers), the parties' business conduct is described by the traditional model, and the rate of breach is low. Buyer chooses Seller and contracts for the boat. On the delivery date, Buyer tells Seller he will refuse to accept delivery because a change in his circumstances has eliminated his need for a boat. The spot market for boats is also competitive, but the customizing has no resale value. Seller resells the boat on the spot market and sues Buyer to recover damages for breach of contract.

12. *Cf.* Fuller & Perdue, *The Reliance Interest in Contract Damages (pt. 1)*, 46 YALE L.J. 52, 62-63 (1936); Goetz & Scott, *Enforcing Promises: An Examination of the Basis of Contract*, 89 YALE L.J. 1261, 1284 (1980).

In this example, Seller would have contracted with another buyer but for the breached contract, and it is very likely that the alternative buyer would have performed. Consequently, reliance damages, which put Seller in the position he would have been in if he had not contracted with Buyer, virtually equal expectation damages, which put Seller in the position he would have been in if Buyer had performed.

Example B is identical to *Example A,* except that the motive for contracting is not to customize goods, but to hedge against a price increase.

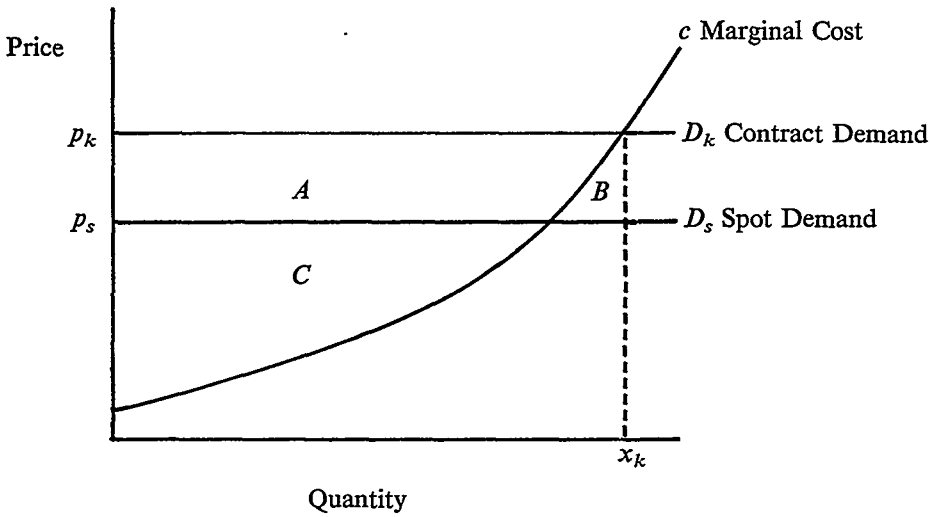
> *Example B.* Buyer wants a ton of coal delivered in six months. The market for coal is competitive, the parties' business conduct is described by the traditional model, and the rate of breach is low. Prices for coal fluctuate because of variations in demand that are difficult to foresee. Buyer is averse to the risk of price fluctuations, whereas Seller is neutral with respect to such risks, so the parties contract for Seller to deliver the coal in six months at an agreed price. On the delivery date, Buyer's circumstances have changed and he has no use for coal. Furthermore, the spot price has fallen below the contract price, so Buyer does not want the coal for resale. Buyer breaches and Seller sues for damages.[13]

The essential facts pertaining to damages in *Example B* are the same as in *Example A.* If Seller in *Example B* had not contracted with Buyer, he would have contracted on virtually identical terms with someone else who probably would have performed. Consequently, putting Seller in the position he would have enjoyed if Buyer had performed is virtually the same as putting him in the position he would have enjoyed if he had not contracted with Buyer.

Now we explain this case by using a graph. Figure 3 depicts the situation of a Seller like the one in *Example A,* who bid in a competitive market to customize a boat. The only difference is that in Figure 3 the example is simplified by assuming that the commodity is measured in continuous units, like petroleum, rather than discrete units, like boats. Demand in the contract market is denoted by the line p_kD_k, which is drawn horizontally to indicate that Seller can sell as many units as he wishes at the contract price p_k. (If the demand curve faced by Seller were not horizontal, the market would not satisfy the assumption of perfect competition.) In the event of breach, the commodity will be resold on the spot market. Demand in the spot market is denoted by the line p_sD_s which also is drawn horizontally to indicate that this market also is competitive. The contract price, p_k, lies above the spot price, p_s. The mar-

13. A sophisticated treatment of the price-hedging motive for contracting can be found in Perloff, *The Effects of Breaches on Forward Contracts Due to Unanticipated Price Changes,* 10 J. LEGAL STUD. 221 (1981).

Figure 3: Competitive Market for Customized Goods



ginal cost is represented by the curve *c*. If the rate of breach is zero, Seller will maximize profits by signing contracts until the marginal cost of supplying the good equals the contract price, which occurs at the quantity denoted x_k. If the rate of breach is small, Seller might shade his production so that it is a little short of x_k. We assume that the rate of breach is so small that x_k is a close approximation of the profit-maximizing level of production.[14]

We shall now illustrate the implementation of the expectation and reliance principles, by applying the damage formulas developed in Part II

14. Figure 3 is based on *Example A*. The same relationships would hold if we used *Example B*, and revised Figure 3 accordingly. To demonstrate this proposition, we can show that the same essential set of facts about production and profit prevails in *Example B* as in *Example A*. Suppose the spot price of coal assumes a high value p_{sh} half the time and a low value p_{sl} half the time. Seller produces x units and promises to deliver x_h units, planning to fill its contracts either from its own production or from purchases on the spot market. If the spot price should assume its high value p_{sh} in the current period, the buyer performance will equal x_h. If $x < x_h$, there will be a shortfall in Seller's production relative to buyer performance. Unlike *Example A*, Seller in *Example B* can make up for a shortfall in production by a purchase on the spot market, denoted $x_h - x$. On the other hand, if the spot price assumes its low value p_s, then breaches by buyers will cause their performance to fall to x_l. If $x > x_l$, Seller will have excess production relative to buyer performance, so he will have to dispose of a certain number of units on the spot market, denoted $x - x_1$. In either case, the value of the marginal unit of output to Seller is the spot price. Consequently, if Seller is risk-neutral he will produce until the marginal cost of production equals the average spot price.

If Seller is risk-neutral, then he can spread risk without cost. If risk can be spread without cost, then there will be no payment for the service of spreading risk in a competitive market. If risk-spreading is uncompensated, then the contract price must equal the average spot price. However, if risk spreading is costly then a payment will be made for the service of spreading risk, causing the long run competitive equilibrium contract price to exceed the average spot price.

to *Example A* and *Example B*. We shall do so here in words; the Appendix to this Article contains a technical explanation using the mathematical notation in Figure 3.

Under the conditions stated in *Example A* and *Example B*, the substitute-price formula, by awarding the difference between the contract price and the spot price after breach, restores Seller's revenues to their expected level. In these examples, Seller's costs are unaffected by the breach.[15] Profits are, by definition, the difference between revenues and costs. Since revenues are restored to their expected level and costs remain unaffected, the substitute-price formula restores profits to their expected level, as required by the expectation principle. We conclude that, in a perfectly competitive market with business conduct described by the traditional model and with a low rate of breach, the substitute-price formula protects the expectation interest.

We now turn to a parallel argument concerning the implementation of the reliance principle. In *Example A* and *Example B*, Seller would have contracted with someone else on the same terms if he had not contracted with breaching Buyer. Under the conditions stated in these examples, the opportunity-cost formula, by awarding the difference between the forgone price on the alternative contract and the spot price prevailing after breach, restores Seller's revenues to their forgone level, by which we mean the level that would have been created by performing the alternative contract. Seller's costs in these examples are unaffected by the breach, and profits are by definition the difference between revenues and costs. Since revenues are restored to their forgone level and costs remain unaffected, the opportunity-cost formula restores profits to their forgone level. Assuming the probability of breach on the forgone contract is small, restoring profits to their forgone level is required by the reliance principle. We conclude that, in a perfectly competitive market with business conduct described by the traditional model and a low rate of breach, the opportunity-cost formula protects the reliance interest.

Furthermore, it is easy to show that, under these conditions, damages are the same under the substitute-price formula and the opportunity-cost formula, which illustrates the equivalence of expectation and reliance damages under these conditions.[16]

In contrast, the other two formulas—out-of-pocket costs and lost surplus—do not generally protect the expectation or reliance interest in

15. The examples could be changed so that Seller's costs are affected by breach. His costs would be affected if, in order to mitigate damages, he stopped production upon receiving notice of breach and thus did not finish producing the breached units.

16. The substitute-price formula awards the difference between the contract price and the spot price. The opportunity cost formula awards the difference between the forgone price and the spot price. In *Example A* and *Example B*, the forgone price equals the contract price, so the two formulas yield the same damage award.

circumstances like *Example A* and *Example B*. The out-of-pocket-cost formula fails to take account of the opportunity lost as a result of making the breached contract, so it does not protect the reliance interest, much less the expectation interest. The lost-surplus formula awards damages equal to the profits expected from the breached contract. In a perfectly competitive market in which the parties' business conduct is described by the traditional model, however, Seller expects no profits on the marginal contract, that is, a contract involving one unit of his production.[17] The lost-surplus formula therefore awards no damages for marginal breach even though the expectation and reliance interests have been injured.[18] More generally, when breach involves many units instead of just a marginal unit, the lost-surplus measure can undercompensate or overcompensate, as demonstrated in the Appendix.[19] We conclude that, in a perfectly competitive market with business conduct described by the traditional model and with a low rate of breach, the lost-surplus and out-of-pocket-cost formulas do not protect the expectation and reliance interests.

2. *The Statistical-Planning Model of Business Conduct in Perfectly Competitive Markets*

Expectation and reliance damages are equal in *Example A* and *Example B* because the market is competitive, the rate of breach is low, and business conduct is described by the traditional model. Assume now that the market is competitive, the seller enters into a large number of contracts, and the rate of breach is high but predictable. In such a case, a rational seller may produce fewer units than he has contracted to sell, or may make available during each period more units than are invariably cleared. To illustrate, suppose that the rate of breach averages one-third, and the seller's production level, at which contract price equals marginal cost, is x_k, which is a large number. To maximize profits on sales, seller needs to enter into enough contracts to produce and deliver x_k units, which is achieved by entering into $3/2x_k$ contracts. We call the problem of measuring the seller's damages in such cases—cases where breach is predictable, within limits, on a statistical basis—the problem of statistical breach.

Such a situation brings out an ambiguity in the meaning of the uninjured state (and therefore in the meanings of injury and compensation) under the expectation conception of damages. Is the uninjured state the position the seller would have been in if every buyer had performed, or

17. Seller produces until the cost of a marginal unit equals, or almost equals, the contract price. Since price equals cost, Seller expects no profits on the marginal unit.

18. *See infra* pp. 1478-80.

19. *See id.*

the position the seller would have been in if as many buyers performed as the seller expected? Take the following example:

> *Example C.* Seller operates a limousine service in a major city. The limousine market is competitive, but on any given day some limousines may stand idle. Buyer books limousine services from Seller one month in advance at sixty dollars per hour. When the day arrives, Buyer's circumstances have changed and he cancels. Limousines are then available for hire from other companies at fifty-five dollars per hour. Seller does a large volume of business and can usually forecast the number of cancellations that will occur each day. Consequently, he has no unused limousines as a result of Buyer's breach. Seller sues for breach of contract.

If expectation damages should put Seller at the profit level he would have attained if as many buyers performed as he expected, then his damages are nil. If, however, expectation damages should put Seller at the profit level he would have attained if all buyers performed, then he should recover. Even though all of Seller's limousines are engaged, he could have hired a limousine from another company and serviced Buyer at a profit.

A similar analysis applies to reliance damages. Is the uninjured state for purposes of reliance damages the situation Seller would have been in if, instead of contracting with the breaching buyer, he had contracted with no one? Or is it the situation Seller would have been in if he had contracted with a different buyer? Under the former conception, reliance damages would be nil. Under the latter conception, damages are owed, because there is a statistical likelihood that an alternative buyer would have performed, and Seller could service all performing buyers at a profit.

In addition to revealing an ambiguity in the meaning of the expectation and reliance conceptions, the statistical-breach model has fundamental implications for damages based on lost volume, which are a special case of lost-surplus damages. For example, several commentators have argued that lost-volume damages are improper in a perfectly competitive market. They reason that in such a market, any sale made by the seller after the buyer's breach is a replacement for the breached contract, so that the seller will incur no lost volume (and therefore no lost surplus) as a result of the breach.[20] This argument, however, implicitly assumes that

20. The theory is that in a perfectly competitive market a seller will produce only a limited number of units (based on the point where his marginal cost equals price) and can clear every unit he produces, so that his volume is the same with or without the breach. *See* Goetz & Scott, *Measuring Sellers' Damages: The Lost-Profits Puzzle*, 31 STAN. L. REV. 323 (1979); Shanker, *The Case for a Literal Reading of UCC Section 2-708(2) (One Profit for the Reseller)*, 24 CASE W. RES. L. REV. 697 (1973); Note, *A Theoretical Postscript: Microeconomics and the Lost-Volume Seller*, 24 CASE W. RES. L. REV. 712 (1973).

the seller's business conduct is best described by the traditional model. If (1) the seller's conduct is best described by the statistical model, (2) the actual rate of cancellation is higher than the seller anticipated, and (3) he is unable to clear the excess inventory during the relevant period, then damages under the expectation principle would be determined by some variant of the lost-surplus formula.

This is illustrated by a common variation of *Example C* that occurs where, as in the case of hotels and airlines, the seller operates in a market in which the rate of breach by buyers is high, but the seller normally cannot augment his own capacity in the short run. Sellers in such markets may routinely overbook orders in the confident anticipation that some buyers will cancel. If the actual rate of cancellation is the rate at which the seller overbooked, breach will not disappoint the seller's expectation or result in unused capacity. If the actual rate of cancellation is lower than the rate at which the seller overbooked, the seller may be forced to breach some contracts (in which case, each cancellation will benefit the seller by reducing the number of contracts he himself must breach). If the actual rate of cancellation is higher than the rate at which the seller overbooked, breach will cause the seller to have unused capacity and a lower volume than if performance had occurred, and damages under the expectation principle then would require that some account be taken of the seller's lost volume.

B. Imperfectly Competitive Markets

1. The Traditional Model of Business Conduct in Imperfectly Competitive Markets

Imperfect competition, which exists when some participants in a market have power over the prices and terms of contracts, often arises because of product differentiation, geographical segmentation of the market, or a large market share for one of the participants. In such a market, the demand curve faced by a firm is downward-sloping. Since the demand curve slopes down, a seller who wants to attract more contractual partners must offer them better terms. Thus, the terms of the contracts that are entered into are more advantageous than the terms of available alternative contracts. Consequently, the victim of breach is better off if there is performance under an actual contract than he would have been under alternative contracts. In technical terms, the opportunity cost of forgone contracts is less than the expected value of contracts that are made. The result is that under imperfect competition, expectation damages exceed reliance damages even under the traditional model.

This point can be illustrated by an adaptation of *Example A*.

Example D. Buyer wants to purchase a certain kind of boat.

> The only person in the region who can supply this kind of boat is Seller. Buyer and Seller contract for the boat, but on the delivery date, Buyer tells Seller that he will refuse to accept delivery because a change in his circumstances has eliminated his need for a boat. Seller then resells the boat at a reduced price and sues to recover damages for breach of contract.

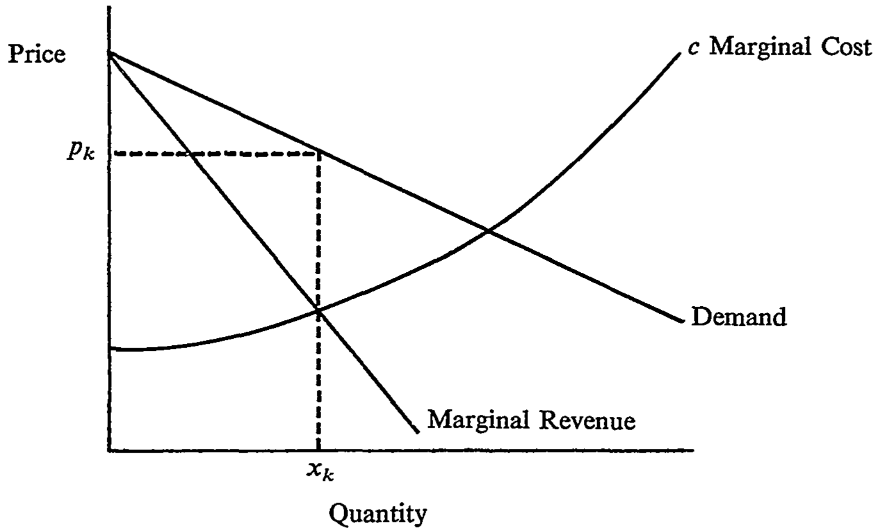
In any market, some buyers are more eager than others to make a purchase, and the most eager buyers are prepared to pay higher prices. In a competitive market, as in *Example A*, a seller cannot take advantage of this fact, since the large number of sellers drives price down to marginal cost. However, in a noncompetitive market, as in *Example D*, the seller can take advantage of eager buyers by keeping the price high, above marginal cost. The customers who are the most eager to buy will pay the high price, whereas less eager customers will not. Thus Seller in *Example D* presumably contracted with Buyer instead of someone else because Buyer offered more favorable terms to Seller than the best alternative offer. Consequently, performance by Buyer is more valuable to Seller than the opportunity lost by entering the contract, which implies that expectation damages exceed reliance damages.

The proposition that expectation damages exceed reliance damages when the injured seller has market power depends upon the fact that the demand curve faced by the seller is downward-sloping. The downward slope implies that the seller must lower the price in order to attract more business, rather than being able to sell as many units as he wishes at the going price, as in a competitive market. There are many economic models of market power, such as pure monopoly, oligopoly, and imperfect competition. Expectation damages normally exceed reliance damages for all models with a downward-sloping demand curve.

In Figure 4 we have graphed the situation of a noncompetitive seller. Unlike the competitive case graphed in Figure 3, the demand curve in Figure 4 slopes downward. The traditional model of an imperfectly competitive market explicitly assumes that a seller will supply commodities until marginal cost equals marginal revenue. This assumption also applies to imperfectly competitive contract markets in which the probability of breach is low. Seller in Figure 4 maximizes profits by signing contracts and producing until marginal revenue equals marginal cost, which occurs at the level of output denoted x_k and the price denoted p_k.

When Buyer breaches, Seller has extra goods, which he may sell in the spot market, retain in inventory, or scrap. The decision whether or not to sell the breached goods turns on whether additional sales will spoil the spot market. Additional sales spoil the market for a seller if they lower his profits, whereas an additional sale does not spoil the market if it

Figure 4: Monopolistic Supplier



raises his profits. Since no single supplier can influence the price in a competitive market, such a market cannot be spoiled by resale of breached goods. Furthermore, if a seller does not deliberately produce goods for the spot market, he will not spoil a spot market for himself by unloading breached goods from time to time. Thus a seller in a competitive market, or a seller who does not deliberately produce for the spot market, will usually resell breached goods.

In contrast, a sale of breached goods may spoil the spot market if a seller deliberately produces for an imperfectly competitive spot market. To illustrate, suppose a seller cannot price-discriminate among buyers, so that he must charge the same price on goods he deliberately produces for the spot market and on breached goods he sells there. Assuming that competition in the spot market is imperfect, the seller may have to lower the spot price on all goods to attract an additional buyer for the breached goods. The market is spoiled if the revenue lost by lowering prices on the goods deliberately produced for the spot market exceeds the revenue gained by selling the breached goods, whereas the market is not spoiled when the converse is true.

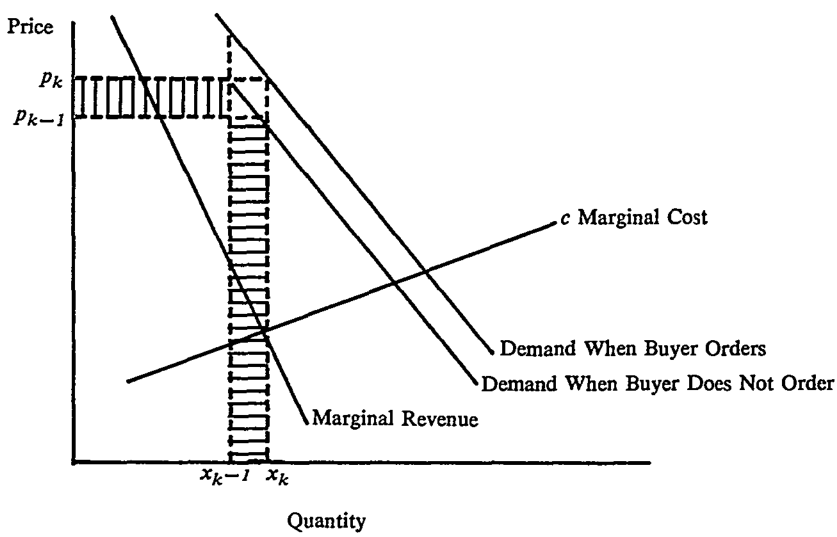
If resale spoils the market, a seller will respond to breach by withholding the breached unit, holding price constant, and reducing his sales volume. Damages under the expectation principle will then be measured by the lost-volume formula, together with an offset to reflect the scrap value of the breached unit. On the other hand, rather than holding price constant and reducing the volume of sales, the seller may choose to sell the breached unit, lower the spot price, and hold sales volume constant. If Seller does resell the breached unit on the spot market, damages under the expectation principle would be measured by the substitute-price formula, together with an add-on to reflect the lowered prices on the units Seller originally produced for the spot market.[21] Thus the correct formula for measuring damages under the expectation principle, when the market is imperfectly competitive and the parties' business conduct is described by the traditional model, depends on whether the seller responds to breach by quantity or price adjustments.

The computation of reliance damages under the traditional model of imperfect competition is similarly complicated. We have already explained that lowering the price may spoil the market for Seller.[22] If Seller had not contracted with Buyer, he might or might not have contracted with someone else, depending on whether an alternative contract would have spoiled the contract market.[23] If Seller would have con-

21. Suppose that increasing the supply to the spot market from x_s to $x_s + 1$ will cause the spot price to fall from p_s to p_{s-1}. If Seller cannot discriminate among buyers, the lower price will be paid by *all* purchasers on the spot market. Thus, selling the breaehed commodity on the spot market will cause Seller to gain p_{s-1} from having an additional unit to sell, and to lose $x_s\,(p_s - p_{s-1})$ from lowering the price on all units.

22. Assume Seller must charge the same price to every buyer. Therefore, if Seller had not contracted with Buyer, his choice would have been either to sell $x_k - 1$ units at the high price p_k or to sell x_k units at the low price p_{k-1}. For a more complete explanation, see *infra* note 23.

23. To illustrate the problem, modify Figure 4 as follows. Seller actually signed x_k contracts at the price p_k. Suppose, however, that Seller had not contracted with Buyer. What would Seller have



done instead? As depicted in the figure below, eliminating Buyer from the market causes the demand curve to shift downward. If Seller had wanted to maintain the same price, p_k, in the face of tracted with an alternative buyer, correct damages under the reliance principle must take account of this lost opportunity. Consequently, reliance damages would be measured by the opportunity-cost formula, possibly with an add-on if the spot market is spoiled.[24] As a practical matter, however, in an imperfectly competitive market, determining the value of the lost opportunity is a difficult counterfactual exercise. If Seller would not have contracted with an alternative buyer, correct damages under the reliance principle would be measured by the out-of-pocket-cost formula, not the opportunity-cost formula, because by hypothesis the seller did not forgo an opportunity.

2. *The Fishing Model of Business Conduct in Imperfectly Competitive Markets*

It has become a generally accepted principle of law that under appropriate conditions the seller may measure damages by a variant of the lost-surplus formula that reflects the seller's lost volume.[25] Use of this formula has come under a great deal of criticism recently.[26] Some of this criticism seems implicitly to assume that sellers respond to variations in demand by adjusting prices rather than quantities. As seen in the preceding Section, the traditional model of business conduct in imperfectly competitive markets usually (but not always) implies that a seller responds to breach by lowering his prices sufficiently to attract buyers to pick up the lost units. In such a case, the seller's volume stays constant, and his damages would appropriately be measured by the substitute-price formula. However, rather than conforming to the traditional model of business conduct, many sellers routinely respond to changes in demand by holding prices constant and adjusting inventory. When sellers conduct their business in this way, correct damages under the expectation principle would be determined not by the substitute-price formula, but by the lost-surplus formula, which takes changes in sales volume into account.

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less demand, his sales volume would have fallen by one unit from x_k to $x_k - 1$. If instead Seller wanted to maintain sales at the level x_k, he would have had to lower his price to attract an alternative buyer. Specifically, if Seller faced the lower demand curve in Figure 4, he would have had to set the price at p_{k-1} in order to sell x_k units.

Assume Seller must charge the same price to every buyer. Therefore, if Seller had not contracted with Buyer, his choice would have been either to sell $x_k - 1$ units at the high price p_k or to sell x_k units at the low price p_{k-1}. It can be shown that selling an additional unit at the lower price would have been the more profitable choice if the horizontally shaded area in the figure were larger than the vertically shaded area, but not otherwise.

24. As with expectation damages, an add-on is required under imperfect competition to reflect the fact that breach may cause price changes for nonbreached goods.

25. *See, e.g.*, Famous Knitwear Corp. v. Drug Fair, Inc., 493 F.2d 251 (4th Cir. 1974); Snyder v. Herbert Greenbaum & Assocs., Inc., 38 Md. App. 144, 380 A.2d 618 (Md. Ct. Spec. App. 1977); Neri v. Retail Marine Corp., 30 N.Y.2d 393, 285 N.E.2d 311, 344 N.Y.S.2d 165 (1972).

26. *See, e.g.*, the commentary cited *supra* in note 20.

Example E: Seller supplies branded plumbingware to plumbing subcontractors under an exclusive territorial franchise. Seller's practice is to keep in inventory a full line of three colors and selected models in other colors. If a buyer wants merchandise that Seller does not have in inventory, Seller orders the models and colors the buyer wants. Seller always charges the manufacturer's suggested list price. Buyer places an order for models and colors that Seller does not have in inventory, but later refuses to accept the merchandise because of changed conditions in his business. Seller retains the breached items in inventory and shortly thereafter sells them to someone else at the list price. Seller sues Buyer for breach of contract.

We call the model that describes business conduct of this type (*Example E*) the fishing model, because the seller sets out plumbingware at a fixed price as bait and fishes for customers.[27] If one fish gets away from a fisherman, the rest of the catch is unaffected by the escape; losing one fish does not enable a fisherman to catch another fish. Similarly, the effect of Buyer's breach in *Example E* is the loss of one sale, and that loss does not make another sale possible.

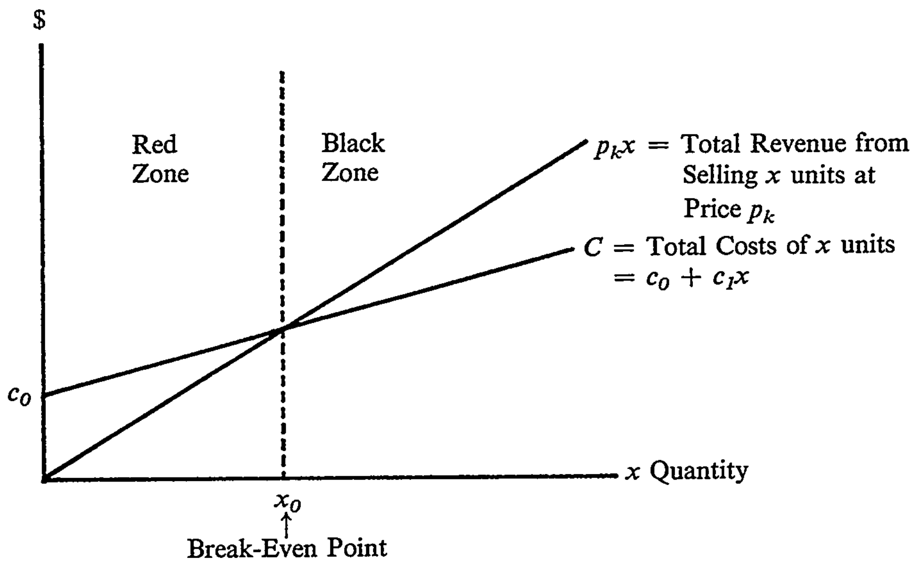
In *Example A* and *Example B*, the seller predetermines his production in light of demand in the contract and spot markets. Breach by the buyer therefore frees for sale in the spot market a unit that would not otherwise be available. The sale of that unit in the spot market offsets the loss of volume in the contract market caused by the breach. Accordingly, in *Example A* and *Example B*, breach reduces Seller's expected revenue only by the difference between contract price and spot price, and expectation damages should be measured by the substitute-price formula. In contrast, in the fishing model breach reduces the volume of sales in the contract market without making possible the sale of an additional unit in either the contract or spot markets. Thus in *Example E*, Seller expected to realize a gain on the contract with Buyer equal to the difference between list price—the contract price—and his cost of supplying the good. The breach neither enables Seller to enjoy that gain nor makes possible a sale on the spot market that Seller could not otherwise have made.[28] Damages under the expectation principle, therefore, should be

27. The essentials of the analysis of the type of business conduct described by the fishing model, and the appropriate conclusions as to damages, *see infra* text accompanying notes 46-49, were developed in Eisenberg, *The Bargain Principle and Its Limits*, 95 HARV. L. REV. 741, 794-98 (1982), but that discussion did not include a formal economic model. Subsequently, Victor Goldberg put forward an overlapping analysis, and we and Victor Goldberg independently developed and named the fishing model. *See* Goldberg, *An Economic Analysis of the Lost-Volume Retail Seller*, 57 S. CAL. L. REV. 283 (1984).

28. The case might be different if the second buyer required immediate delivery in just those models and colors that Buyer ordered, and but for the breach, Seller could not have made immediate delivery.

measured by the lost-surplus formula.[29]

Figure 5: Fishing Model



While Seller's expectation damages are likely to be substantial in *Example E*, his reliance damages are likely to be nil. Since Seller sells to every buyer who is willing to pay the manufacturer's suggested price, he did not forgo a sale to contract with Buyer. Accordingly, Seller has no

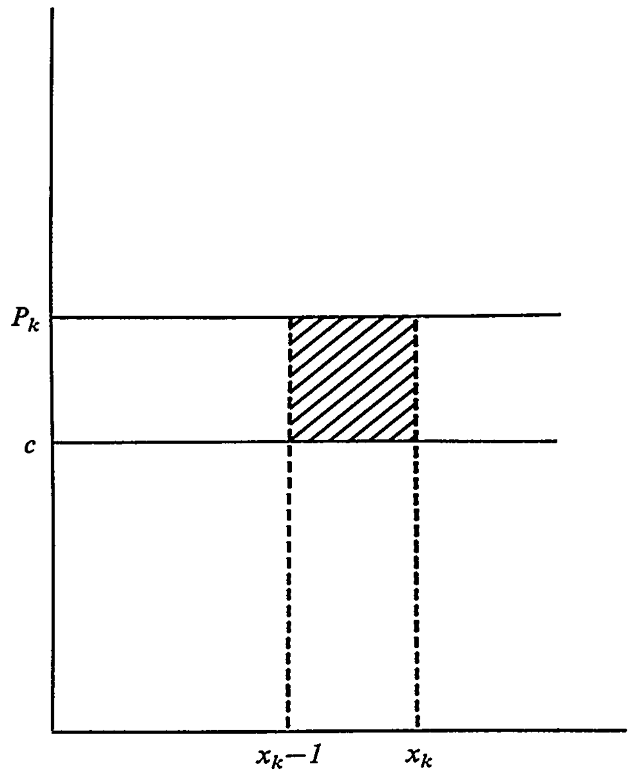
29. This is subject to a possible offset: If Seller's prices remain constant but his variable costs are rising, Seller's damages should be the lost surplus on the first contract less the increase in cost between the two contracts. This is because if costs are rising, Seller's costs on the second contract are less than they would have been if the first contract had been performed. *See* Goetz & Scott, *supra* note 20, at 338-40; Schlosser, *Damages for the Lost-Volume Seller: Does an Efficient Formula Already Exist?*, 17 U.C.C. L.J. 238, 247-48 (1985). Buyer should therefore be allowed to prove an increase in Seller's variable costs between the first and second contracts, if he can. *See* Sebert, *Remedies Under Article Two of the Uniform Commercial Code: An Agenda For Review*, 130 U. PA. L. REV. 360, 407 (1981). However, in many cases Seller's variable costs will not rise between the first and second contract because there are no capacity constraints in the relevant range of production or because there are constant returns to scale. Goetz and Scott also point out another possibility: when a buyer's circumstances change so that he no longer needs the contractual good, he may accept delivery and then resell the good. Resale by the performing buyer may spoil the market for the seller just as if buyer breached and seller resold the good. To be more precise, if (1) a seller regularly operates in the spot market, (2) the environment is frictionless, so that a buyer can resell purchased goods in the spot market under the same conditions the seller faces, and (3) there are no costs to the buyer associated with the resale, then a breach of B units by a buyer produces a corresponding shift of B units in the demand curve faced by the seller. This point is theoretically sound, but few markets appear to satisfy the stated conditions.

reliance damages under the opportunity-cost formula. Reliance damages are also likely to be nil, or very nearly so, under the out-of-pocket-cost formula.

Seller's situation is graphed in Figure 5. Seller selects a price p_k at which he will deliver a particular good. The total revenues in any period from the sale of plumbingware are the price times the quantity, $p_k x$. Total costs are represented in Figure 5 by the cost curve, C, which includes both fixed (c_o) and variable ($c_1 x$) costs. The intersection of the total-cost curve and the total-revenue curve, which occurs at sales level x_o, separates the profitable and unprofitable regions of sales. If sales are less than x_o, Seller operates in the red in that period; if sales are greater than x_o, Seller operates in the black in that period. Seller cannot foresee the quantity of sales in any period, but if competitive forces drive profits to zero, in the long run, the average sales volume will be the break-even level x_o.

Seller's damages from breach are illustrated in Figure 6. During the

Figure 6. Damages in Fishing Model



period when Buyer breached, the total number of contracts signed by Seller was x_k, but Buyer's breach implies that $x_k - 1$ buyers performed.

The contract price is set at the level p_k, and the marginal cost of plumbingware to Seller is denoted as c. Breach caused Seller to lose profits $p_k - c$, indicated by the shaded area in Figure 6.

Before leaving the fishing model, some remarks are in order about its unconventional aspects. The model appears to capture reality, in that many sellers hold the price of some goods constant for considerable periods of time and respond to fluctuations in demand by adjustments in nonprice elements, such as inventory. For example, most airlines do not lower prices when a plane is about to depart with empty seats; hotels seldom lower prices for vacant rooms in the late evening; many clothiers hold prices constant during the season and then clear inventory by holding a sale; and many bookstores never lower prices, clearing inventory by returning books to the publishers. There is no settled theory among economists to explain these practices. It has been suggested that combining fixed prices with occasional sales enables a seller to discriminate among buyers according to their time preferences.[30] Another explanation is that it is too expensive to reexamine individual prices on a daily basis, so that rule-of-thumb pricing is adopted over a spectrum of goods and a period of time. It is also possible that buyers are reluctant to invest time and energy in shopping at a store where prices change frequently and unpredictably. Presumably, however, our conclusions about measuring expectation damages would stand whenever a seller holds prices constant in the face of fluctuations in demand, regardless of his motives.

IV
WHAT MEASURE OF DAMAGES SHOULD THE LAW PREFER?

A. *The General Case*

We now consider whether reliance or expectation damages should be preferred on breach of a bargain contract. In examining this question, we turn from problems of definition to problems of fairness and policy.

In many cases, the issue of selecting between reliance and expectation damages is not significant, because the two measures will yield virtually identical damages. In particular, as shown in Part III, Section *A*,[31] in a competitive market reliance damages normally will equal expectation damages unless the seller's business conduct is described by the statistical-breach model.[32] While it is true that few markets satisfy all the conditions of perfect competition, many come close enough so that the

30. Varian, *A Model of Sales*, 70 AM. ECON. REV. 651 (1980).

31. *See supra* pp. 1445-49.

32. *See supra* pp. 1449-51.

difference between expectation and reliance damages would be insignificant.

The question remains what measure of damages should be used in cases where expectation and reliance may materially diverge. We begin our analysis of that question with the concept of efficient contract terms.

Economists often distinguish between efficiency and distribution. For present purposes, efficiency concerns the amount of value created by a contract, and distribution concerns the division of that value between the parties. Economists say that a contract is efficient if its terms maximize the value that can be created by the contemplated exchange. Put differently, if a contract is inefficient, revising the inefficient terms can increase the value it creates.

The distinction between distribution and efficiency parallels a distinction between the price and nonprice terms of a contract. Adjusting *nonprice* terms often makes it possible to control a contract's efficiency. For example, suppose that our hypothetical contract for a boat includes a term that imposes very high liquidated damages if Seller breaches. There are many types of precaution Seller can take to decrease the probability of breach, such as ordering materials well in advance, hiring extra workers to protect against someone's quitting or falling ill, and reserving drydock facilities needed in the final stages of construction. If the very high liquidated-damages term is enforceable, it may cause Seller to take excessive precaution, in the sense that the cost of the precaution to Seller is greater than the value to Buyer of the increased probability that Seller will perform. In that case, the liquidated damages term is inefficient. If, however, the term is modified by reducing the liquidated damages, the saving to Seller from taking less precaution would exceed the cost to Buyer of exposure to additional risk of nonperformance. This would result in a net increase in the value created by the contract.

The *price* term of a contract controls the distribution of the value that the contract creates.[33] Revision of an inefficient nonprice term can produce an increase in value, and this increase can be distributed between the parties by adjusting the price term so that each party is better off. Thus in the boat case, an increase in value from adjusting the liquidated-damages provision, initially enjoyed by Seller, could be split with Buyer by lowering the price of the boat. The revised contract, containing lower liquidated damages and a lower price, would make both parties better off. Put differently, the original contract stipulates damages in the event of Seller's breach, thus creating a right in Buyer. If Seller is willing to pay more for a modification of this right than the price

33. An executory price term can influence efficiency in the sense that a buyer's promise to make a payment in the future affects the seller's reliance. *See infra* pp. 1465-69.

Buyer would demand, efficiency requires that the contract be modified. In this respect, the exchange of legal rights is no different than the exchange of ordinary commodities.

Under ideal conditions—that is, where negotiation and drafting are cost-free—self-interest compels a rational buyer and seller to create an efficient contract, so that the process of bargaining leads to the maximization of the value a contract creates. In practice, however, there are many obstacles to creating efficient contracts. For example, it is costly to write contract terms. Instead of including explicit terms covering all contingencies, therefore, most contracts leave many issues to be resolved by the courts in case an irreconcilable dispute should arise. Specifically, many contracts leave out terms covering damages for breach, and the courts, in effect, must fill in the contract with legal damages rules.

The damage rules that the courts apply to fill in contracts should be both fair and efficient. Contracts negotiated under ideal conditions will be efficient, and enforcing the terms of such contracts will usually be regarded as fair. Thus we take as a theorem that a damage rule is both fair and efficient if it corresponds to the terms that rational parties situated like the contracting parties would have reached when bargaining under ideal conditions.

The question then is, why might rational parties, who address the issue, choose an expectation measure over a reliance measure? One reason is administrative: it is usually easier to establish in court the value of performance than the extent of reliance. The very fact of reliance is often difficult to prove, as in cases where the reliance consists of passive inaction (such as failure to pursue alternatives) rather than a positive change of position. Even if the fact of reliance can be proved, reliance damages may be difficult to measure. In a noncompetitive market, for example, reliance damages would normally be calculated by the opportunity-cost formula, which requires determining the forgone price. Often, however, the forgone price is very hard to determine, as where the commodity is so unusual that there is no way to establish exactly what the next-best alternative buyer would have paid. In contrast, expectation damages are based on the contract price, which is known, rather than the forgone price, which is speculative. This administrative consideration has implications for both fairness and efficiency. In terms of fairness, the difficulty of proving reliance damages might, paradoxically, result in a failure to protect the reliance interest unless an expectation measure is chosen. In terms of efficiency, a damage measure that was difficult to prove, and therefore unreliable, would undercut the goal of facilitating private planning.

An intimately related set of considerations has to do with the incentive effects of the expectation and reliance measures.[34] Most contracts are made with the expectation of mutual gain. As shown in Part I, this gain can be measured by the profits created for firms or the consumer's surplus created for individuals.[35] The total gain to both parties—the surplus from exchange—is the value created by the contract. The terms of a contract have incentive effects upon behavior that influence how much value the contract will create.[36] Accordingly, one index to whether a damage rule would have been agreed to by rational parties situated like the contracting parties, and bargaining under ideal conditions, is whether the rule provides incentives for efficient behavior.

Contract damage rules influence several types of behavior, such as searching for trading partners, negotiating exchanges, drafting contracts, keeping or breaking promises, relying upon promises, mitigating damages caused by broken promises, and resolving disputes about broken promises. A complete account of the incentive effects of various damage rules would model the effects on all these types of behavior. Instead of aiming for completeness, we will focus on incentives to perform contracts, to take precautions against breach, and to rely on contracts.[37] To illustrate, in our boat example Seller must decide whether to perform, and how much precaution to take to assure that he will be able to perform, and Buyer must decide how much to rely on Seller's promise (e.g., whether to make a contract for dock space to begin when the boat is scheduled to be delivered). These three decisions concern the rate of breach, the amount of precaution, and the extent of reliance.

1. *Performance*

We begin with the incentive effects of damage measures on the deci-

34. For a comparison of incentive effects of damage rules, see Shavell, *Damage Measures for Breach of Contract*, 11 BELL J. ECON. 466 (1980).

35. *See supra* pp. 1435-38.

36. We assume here that the incentive effects of contract law are significant over a broad range of cases. The importance of such effects has been questioned. For example, Kornhauser distinguishes "perfect reputation" from "anonymity" in the contractual setting. As information concerning reputation improves, the incentive effects of contract law may diminish. *See* Kornhauser, *Reliance, Reputation, and Breach of Contract*, 26 J.L. & ECON. 691 (1983). *But cf.* Eisenberg, *supra* note 20, at 744 n.8 (data concerning reputation is so difficult to assemble that a regime dependent solely on reputation would almost certainly be less fair and efficient than an enforcement regime). In any event, express and even implied contractual provisions would have incentive effects under a reputation regime, since they would be controlling in determining whether breach had occurred. Cooter and Landa demonstrate that formal contract law substitutes for informal enforcement mechanisms, snch as clubs or religious organizations that impose sanctions on members who breach contracts. As formal contract law improves, the optimal size of these club-like arrangements diminishes. *See* Cooter & Landa, *Personal Versus Impersonal Trade: The Trading Groups and Contract Law*, 4 INT'L REV. L. & ECON. 15 (1984).

37. Following the economic convention, we focus upon incentives for behavior, rather than arguments abont risk-spreading. For a very useful discussion of risk-spreading, see Polinsky, *Risk Sharing Through Breach of Contract Remedies*, 12 J. LEGAL STUD. 427 (1983).

sion whether to perform, that is, on the rate of breach. A contract involves a promise by at least one party, and it is always possible that events will induce a promisor to refuse to perform, either because performance has become unprofitable or because an alternative performance has become more profitable. If a promisor were liable only for the promisee's reliance damages, the value of the promisor's performance to the promisee would not enter into a purely self-interested calculation by the promisor whether to perform. In contrast, expectation damages place on the promisor the promisee's loss of his share of the contract's value in the event of breach, and thereby sweep that loss into the promisor's calculus of self-interest.

The effect of expectation damages on the promisor's calculations can be stated in terms of externalities. Economists say that an externality exists when one person imposes a cost upon another without paying for it. Incentives for performance are efficient if they compel a promisor to balance the cost to him of performing against the losses to himself and to others that will result if he does not perform. If the promisor does not perform, the promisee loses his share of the value of the contract. If the promisor is liable for that loss, he internalizes not only his own loss but the losses to the promisee that result from his failure to perform. In contrast, if the promisor is liable only for reliance damages, he will not internalize the full value of performance to the promisee. Thus expectation damages create efficient incentives for the promisor's performance, while reliance damages do not, unless they are identical to expectation damages.

By directly affecting the probability that the promisor will perform, the expectation measure has an indirect effect upon the promisee's behavior, which can be stated in terms of planning. Knowing that expectation damages give the promisor strong incentives to perform, the promisee will be more confident that his reliance on the promisor will not expose him to undue risk. The promisee can therefore plan more effectively, because once a contract is made he can order his affairs with the confidence that he will realize its value, whether by performance or damages. In contrast, under a regime of reliance damages, a promisee could plan only on the basis that if breach occurs the law will put him back to where he was when he started. Since planning is by nature forward-looking, this backward-looking nature of reliance damages would be a shaky foundation for ordering complex affairs. Furthermore, it is in the promisor's interest that the promisee be able to plan reliably, because the ability to do so will make the promisee willing to pay a higher price for the promise.

These ideas can also be expressed in institutional terms. The purpose of the social institution of bargain is to create joint value through exchange. In recognition of the desirability of creating value in this manner, the legal institution of contract supports the social institution of the bargain with official sanctions. It is rational to design the legal sanctions so that the joint value from exchange is maximized. This goal is achieved by protecting the expectation interest.

2. *Precaution*

One reason breach may occur is that the contract has become unprofitable to the promisor due to an increase in his cost of performance. Another reason is that circumstances have changed so that performance has become impracticable, although there is no legal excuse for nonperformance. In either case, the promisor might have forestalled the motivation for breach if he had taken appropriate precautions against the change in cost or circumstances. In the boat case, for example, Seller could have ordered materials well in advance to avoid a price rise, hired extra workers to protect against someone quitting or falling ill, and reserved drydock facilities necessary for the final stages of construction to ensure their availability when needed. Precaution is usually costly in terms of money, time, or effort. From an efficiency standpoint, however, this cost must be balanced against the resulting benefits—a reduction in the probability of breach, and a consequent enhancement of the likelihood that the value of the contract will be realized.

The argument that expectation damages provide incentives for the efficient amount of precaution is the same as the argument that expectation damages provide incentives for the efficient rate of performance. Incentives for precaution are efficient if they compel the promisor to balance the cost of his precaution against the cost of failing to take precaution, including the risk to the promisee of losing his share of the contract's value. In the absence of liability for the promisee's expectation damages, the latter cost would not enter into a purely self-interested calculation by the promisor, and the promisor's incentive for precaution would therefore be inadequate. By placing on the promisor the promisee's risk of losing his share of the contract's value in the event of breach, that risk can be swept into the promisor's calculus of self-interest. Expectation damages, which make the promisor liable for the promisee's loss of value caused by the breach, therefore cause the promisor to internalize the cost of his failure to take adequate precaution, facilitate planning by the promisee, and create incentives for efficient precaution against breach. Reliance damages, which are not based on the value of the contract to the promisee, do not create efficient incentives for precaution except where they equal expectation damages.[38]

38. It is interesting to note that the structure of the incentive problem concerning precaution against breach is similar to the structure of the incentive problem concerning precaution against

3. Reliance

Once a contract has been made, a party may take various actions in reliance upon it. Some such actions fall into the category of performance or preparation for performance. For all practical purposes, these actions are not within the contracting party's discretion. The very purpose of the contract is to commit the party to perform and, by implication, to do whatever is necessary to prepare for performance. If one party does not perform, he is in breach and unable to establish rights against his contracting partner.

There is, however, another category of reliance whose nature or extent is discretionary. The most important component of this category consists of reliance that is neither explicitly nor implicitly required under the contract, although it will enable the relying party to benefit more from the contract. In the boat case, for example, Buyer might buy special navigational equipment in advance so that he can take transoceanic trips as soon as the boat is delivered, rather than postponing his enjoyment of such travel by awaiting delivery of the boat before ordering the special equipment. We will use the term "surplus-enhancing reliance" to refer to discretionary reliance by a contracting party that is undertaken to increase the surplus over and above what he would enjoy had he simply done what was explicitly or implicitly required under the contract.

Typically, surplus-enhancing reliance increases not only the surplus from performance of the contract, but also the loss that will result if the promisor breaches. For example, if Seller in the boat case breaches, Buyer might have to sell the special navigational equipment at a loss. Economists say that a gamble gets more risky as the spread in value between winning and losing increases. More risk involves the possibility of a larger gain and the possibility of a larger loss. Reliance that will enhance the surplus from a contract usually increases the risk involved in a contract.

In the preceding Sections[39] we argued that the rate of breach and the extent of precaution by the promisor are efficient under a regime of expectation damages. The effect of a damages regime on surplus-enhancing reliance is more complex. A rule placing all the costs of such reliance on the promisor might be thought desirable on the ground that it would allow the promisee to plan as if the contract will be performed. On the other hand, we know that not all contracts are performed. Indeed, sometimes both parties can be made better off by nonperformance. It can

accidents in tort. In torts, incentives for precaution are efficient when the injurer is liable for the full harm caused by accidents, just as in contracts incentives for precaution by the promisor are efficient when the promisor is liable for the full harm caused by breach. *See* Cooter, *Unity in Torts, Contracts, and Property: The Model of Precaution*, 73 CALIF. L. REV. 1 (1985).

39. *See supra* pp. 1462-64.

therefore be argued that it is efficient for a promisee to engage in surplus-enhancing reliance only to the extent that such reliance is profitable given the probability of nonperformance.

Assume, for example, that Lessor agrees to lease commercial premises to Lessee for a new retail store, beginning on July 1. To maximize the value of the contract, Lessee may take various steps in reliance prior to July 1, such as advertising the opening of the store. If it is certain that Lessor will deliver the premises on time, Lessee will make advertising expenditures up to the point where one more dollar of expense will produce one more dollar of profit. Assume the level of surplus-enhancing reliance under this state of the world is X dollars. Now suppose that Lessee realizes there is a given probability of nonperformance by Lessor, say p. On the assumption that p is not zero, the efficient level of reliance, which maximizes the expected value of the contract, is less than X dollars. Presumably, therefore, Lessee should factor the probability p into his calculations and spend less than X dollars for advertising. Correspondingly, if a damage measure creates incentives for Lessee to spend X dollars, the measure may be thought to create an incentive for inefficient behavior. We will use the term overreliance to refer to reliance that is inefficient in this sense.

The potential for inefficient overreliance should not be overemphasized, because it is limited to forms of reliance that increase the benefit and risk associated with the contract. Thus the possibility of overreliance often is not salient in the case of sellers. Typically, a seller's reliance consists solely of preparing to perform and performing, and its discretion involves forms of precaution, such as scheduling. Overreliance also is typically not a salient problem for buyers in the case of contracts for homogenous commodities that are readily available on a competitive market. It is usually efficient for a buyer of such commodities to rely as if the seller's performance were certain, because even if the seller does breach, the buyer can normally replace the breached item with an identical commodity on the market, and thereby put his reliance to full use. For present purposes, however, the important point is not the precise extent of the problem, but that a potential for overreliance can exist.

Both the reliance and the expectation measures might be interpreted to require a breaching promisor to compensate the promisee for all of the promisee's actual reliance, whether efficient or not. For example, the Lessee in the hypothetical might be allowed to recover all of his advertising costs under a reliance measure, on the theory that the costs were incurred in reliance and now have gone to waste. He might be allowed to recover all of his advertising costs under an expectation measure, on the theory that if Lessor had performed, Lessee not only would have captured his expected net profit, but also would have recouped his advertising costs. Such interpretations would create incentives for overreliance, because the promisee's expenditures on advertising would, in effect, be insured by the promisor.

The problem can be avoided, however, if the reliance and expectation measures are interpreted to provide for invariant damages with respect to reliance. A measure of damages is invariant with respect to reliance if the promisee cannot increase the promisor's liability by additional reliance over a given baseline. Under those conditions, the promisee internalizes the risk of reliance over the baseline, so that the damage measure will not in itself cause him to overrely. A familiar example is provided by liquidated damages. To illustrate, suppose that in the retail-store hypothetical, the lease validly specified that Lessor would pay $500 per week for late completion, up to a maximum of $8,000. The damages that Lessee could recover on Lessor's breach would then be unaffected by the extent of Lessee's advertising or other surplus-enhancing reliance. Thus the liquidation of damages makes damages invariant with respect to reliance.

Similarly, the reliance and expectation measures can be interpreted as invariant with respect to reliance by limiting recovery on the basis of reliance to costs that are *reasonably* incurred. Such an interpretation would make the two measures invariant, because reasonability is an objective test. Under this test, therefore, actual reliance in excess of reasonable reliance would not be compensated, and the risk of reliance above the reasonability baseline would be internalized by the promisee. If the reasonability baseline was set at the level of efficient reliance, then overreliance would be uncompensated and the promisee would bear its full cost.

Arguably, such an interpretation already prevails under existing law. Both the expectation and reliance measures undoubtedly contemplate that only reasonable reliance will be compensated. The question for present purposes is what kinds of factors determine reasonability. If economic analysis suggests that it is inefficient to engage in surplus-enhancing reliance without regard to the likelihood of breach, that analysis can be read into the meaning of reasonability. Accordingly, although either the expectation or the reliance measure can be interpreted in a way that might create incentives for overreliance in some cases, there is nothing in the nature of these measures that requires such an interpretation, and there is good reason for interpreting them in a manner that would not give rise to overreliance. Under such an interpretation, both the expectation and the reliance measures would lead to an efficient level of reliance.[40]

40. Having discussed incentives for performance, precaution, and reliance, we consider briefly the problem of the efficient number of contracts. It is well known that the quantity of goods

In short, where expectation and reliance damages diverge, expectation damages are preferable because they better assure that reliance will be compensated, better facilitate planning, provide better incentives for efficient performance and precaution, and provide no worse incentives for overreliance.

B. The Limits of the Expectation Principle

In the preceding Section, we showed why expectation damages are normally fair and efficient. In this Section, we shall discuss a special problem with expectation damages that arises when a seller's business conduct corresponds to our fishing or statistical-breach models.

In analyzing this problem, we shall return to the theorem that a contract term can be deemed both fair and efficient if it corresponds to the term that rational parties would probably have agreed to if they had bargained under ideal conditions (that is, if negotiation and drafting were cost-free). Based on this theorem, we shall distinguish between the expectation principle and what we shall call the expectation theory. The expectation *theory*—which follows from the theorem—is that in case of breach the injured party's recovery should be measured under the damage rule the parties probably would have agreed to at the time of contract-formation if they had bargained under ideal conditions and had addressed the issue. The expectation *principle*—which is a doctrinal principle of contract law—is that in case of breach the injured party should be put in a position as good as he would have enjoyed had the contract been performed. The principle gives fair expression to the theory in most but not all cases.

exchanged in a perfectly competitive market is efficient. Efficiency is achieved because exchange occurs until each buyer values an additional good at its cost to the seller. Similarly, contracts will be exchanged in a perfectly competitive market until each buyer values the marginal contract at the cost to the seller, so the number of contracts will be efficient. In contrast, a nondiscriminating monopolist will overprice goods, with the result that fewer than the efficient number of goods are exchanged. Similarly, the price of contracts supplied by a nondiscriminating monopolist will be too high, with the result that too few contracts are made for an efficient level of contracting.

We have already shown that expectation damages usually provide efficient incentives for performance, precaution against breach, and reliance, and that this is true in competitive and noncompetitive markets. What about incentives to supply the efficient number of contracts in noncompetitive markets? Here the policy question may seem simple: since too few contracts are usually supplied under conditions of monopoly, where those conditions prevail the superior damage measure from the viewpoint of the number of contracts is the measure that results in the proper number of contracts. However, the administrative difficulties of determining whether a seller is a monopolist, and what damages will result in the proper number of contracts, make those issues unsuitable for case-by-case determination in contract law cases. Furthermore, it may be that a monopolist will set a monopoly price, but stipulate damage terms so as to maximize the surplus from exchange. In other words, monopoly contracts might be characterized by inefficient price and efficient nonprice terms. The technical analysis of that issue is complicated, and we have no simple generalizations to offer. This ambiguous conclusion is predictable, since we are discussing a "second-best" situation in which economic analysis often proves inconclusive.

We begin with the fishing model. Here the seller supplies commodities to all buyers at a fixed price, so that breach causes a reduction in sales volume. At least at first glance, the lost-surplus formula—and more particularly, the "lost-volume" measure of damages—is necessary to compensate for this reduction in volume. However, there has been much controversy in secondary literature concerning the propriety of lost-volume damages in such circumstances.[41] Whether expectation damages are appropriate when the injured party's method of doing business is best described by the fishing model or by the statistical-planning model, and if so, how to correctly measure the seller's expectation, are difficult questions, to which we now turn.

Prior to the adoption of the Uniform Commercial Code, a seller's measure of damages for breach of a contract for the sale of goods was governed by the Uniform Sales Act. That Act provided that if there was an available market for the goods, the seller's damages normally were to be measured by the difference between the market price and the contract price.[42] In contrast, section 2-708(2) of the U.C.C. provides that if the difference between contract price and market price is inadequate to put the seller in as good a position as performance would have done, the seller's damages are to be measured by the profit, "including reasonable overhead," that he would have made from the buyer's full performance. The case law holds that this alternative measure is to be used when the seller conducts his business in such a manner that the breach did not enable him to make a substitute sale (a sale he would not otherwise have made), so that as a result of the breach the seller loses volume.[43] To put the matter in terms of the analysis in this Article, the Uniform Sales Act provided that in a contract for the sale of goods the seller was normally entitled ouly to substitute-price damages. In contrast, the U.C.C. provides that the seller can recover lost-surplus damages when appropriate. The case law holds that lost-surplus damages are appropriate when the seller's method of doing business is best described by the fishing model.

The routine award of lost-surplus damages for the buyer's breach of a contract for the sale of goods is a relatively recent phenomenon. Such damages have long been routinely awarded, however, for the buyer's breach of a contract for the provision of services.[44] Consider, for example, the following illustration:

> *Example F*: *B*, a manufacturer, wants to have an office building constructed for its headquarters on property it owns. *S*, a contractor, agrees to construct the building for $5 million. *S*'s projected out-of-

41. *See* articles cited *supra* notes 20, 27 & 29.
42. UNIFORM SALES ACT § 64 (act withdrawn 1951).
43. *See, e.g.,* cases cited *supra* note 25.
44. *See, e.g.,* RESTATEMENT OF CONTRACTS § 346(2)(a) (1932).

pocket cost of construction is $4.3 million. The contract is entered into on May 1, 1983; construction is to begin on August 1, 1983, and to be completed on May 1, 1984. Payment is to be made in installments as the building progresses. On July 15, 1983, *B* repudiates the contract.

The fairness and efficiency grounds adduced in Part IV, Section *A*[45] to justify expectation damages also support the award of expectation damages in general, and lost-surplus damages in particular, in cases like *Example F.* A contractor's capacity to take on jobs normally is constrained by such factors as bonding limits and depth of management. Ordinarily, a contractor will attempt to take on as many jobs as it can within the limit of these constraints. Accordingly, it is likely that by virtue of making the breached contract, the contractor will have forgone the opportunity to make another contract, which would have yielded its own surplus. The contractor is also likely to incur other opportunity costs, such as allocating executive time to planning or performing the contract. Fairness normally requires that a victim of breach at least be compensated for his costs, including his opportunity costs. However, it would often be very difficult for the contractor to quantify his opportunity costs and prove them in court. It may be difficult for the contractor to establish that an opportunity to make another contract was forgone, if only because, having made the breached contract, he stopped searching for other opportunities. The allocation of executives' time to a project, and the related planning costs, are also difficult to establish. Because of these difficulties, a reliance measure would be unpredictable in its application. Unpredictability of application is an obstacle both to protecting the contractor's reliance interest, as required for fairness, and to reliable planning, as required for efficiency. In addition, expectation damages make the buyer internalize the benefits of the contract to the parties, and thereby provide him with efficient incentives in making decisions concerning performance and precaution, and further assure reliability in planning.

The same reasoning supports measuring the contractor's expectation by the lost-surplus formula. In theory, the substitute-price formula might be used in such cases, if the contractor completed construction of the building and sold it to an alternative buyer. In practice, when the buyer breaches, the contractor usually must abandon the project, because normally the construction is to occur on the buyer's land, or it is tailored expressly for the buyer, or completion would violate the principle of mitigation of damages or expose the contractor to undue business risks. Furthermore, lost-surplus damages, and not substitute-price damages, will

45. *See supra* pp. 1459-68.

cause the buyer to internalize the full benefits of the contract to the contractor, and thereby assure reliable planning and provide the buyer with the correct efficiency incentives in making decisions concerning performance and precaution. Thus the lost-surplus formula normally will be the appropriate formula to measure expectation damages in cases like *Example F.*

The analysis applied to *Example F* can be extended to most contracts involving the provision of services to merchant-buyers. It may also be extended in substantial part to contracts for the sale of goods to a merchant-buyer by a seller whose method of doing business is best described by the fishing model (as in *Example E*). The analysis may break down, however, where the buyer is a consumer of nonindividualized or "off-the-shelf" services, as in the following example:

> *Example G*: Seller owns a dancing school. He sets a fee of $300 for each 20-session class, and allows preenrollment when accompanied by a down payment of $30. Seller's teachers are on contract, and the building in which classes are conducted is held under a long-term lease, so Seller's out-of-pocket cost for conducting any given class is virtually nil. Buyer preenrolls on May 1 for a class beginning on July 1. By May 20, Buyer's circumstances have changed, and he cancels. The class was undersubscribed, so Buyer's enrollment did not preclude Seller from contracting with another student, and Buyer's cancellation did not enable Seller to enroll a student who would not otherwise have been enrolled. Seller now sues Buyer to recover $270, the difference (calculated under the lost-surplus formula) between the profits it would have earned if the Buyer performed, and the profits it will actually earn given Buyer's cancellation.

If Seller can recover $270, Buyer will have paid the full $300 contract price to Seller although he has received no lessons. Such a recovery would not be easy to justify on the ground that the expectation measure is required to protect the reliance interest in a bargain context. By hypothesis, Seller has incurred neither out-of-pocket nor opportunity costs. Would such a recovery be justified by considerations of efficiency? In Part IV, Section *A*, we argued that a damage rule should cause a promisor to internalize the value of the contract, so as to provide incentives for efficient rate of breach and efficient precaution.[46] This argument applies to *Example G*, but there is a broader set of efficiency considerations that must be discussed to reach a satisfactory conclusion.

To begin the broader analysis, recall first the theorem that a contract term can be deemed both fair and efficient if it corresponds to the

46. *See supra* pp. 1459-68.

term that rational parties situated like the contracting parties would probably have agreed to if they were bargaining under ideal conditions. Recall next the expectation theory, which follows from this theorem: expectation damages should be based on the measure that rational parties situated like the contracting parties would probably have agreed to if they had bargained under ideal conditions and addressed the issue. In analyzing whether the parties in *Example G* would probably have agreed that if Buyer breached, Seller's damages would be measured by its lost surplus, the relevant question is why someone in Buyer's position would make a contract on May 1, rather than simply wait until July 1 and enroll on the first day of class. Consumers normally do not make contracts like that in *Example G* for the purpose of allocating the risk of price changes, or speculating in the market for dancing lessons. Rather, the typical purposes of such contracting are to ensure supply (that is, to ensure a place in the class) and, perhaps, to commit oneself to an action.

Given these purposes, it seems unlikely that Buyer would have agreed ex ante to a provision that if he cancelled in advance he would pay the entire tuition. In effect, such a provision would allocate to Buyer all the risks entailed by his change of mind. Buyer would be unlikely to accept such a risk allocation, because it would be greatly disproportionate to both the benefit to be derived (which is not the dancing lesson itself, but the reservation of a place in line and the personal commitment), and the harm inflicted on Seller in terms of how much worse off he is as a result of having made the contract. Seller, for its part, would not be likely to insist on such a risk allocation, because (*a*) if he did so he would diminish his profitability, since too few consumers would sign contracts; (*b*) it would be unnecessary to do so, in light of the relatively low degree of harm he will suffer; and (*c*) as we shall show, Seller could utilize other mechanisms that would address his needs at significantly less cost (and therefore greater acceptability) to Buyer than lost-surplus damages.[47]

Are lost-surplus damages required to provide the correct incentives to Buyer for performance and precaution? Since these efficiency considerations concern incentives, they are premised on the assumption that the parties know how damages will be measured, or that the damage measure used by the courts corresponds to the measure the parties had rea-

47. If Seller had been operating at full capacity, and reserved a place for a Buyer, he may have turned away an alternative customer. If Buyer's place was not eventually filled, Seller will have incurred an opportunity cost equal to the contract price. One way to handle this problem is to permit Seller to recover his lost surplus in such a case under a reliance theory, with the burden on Seller to prove both that he was operating at full capacity and that he turned away another customer because of his contract with Buyer. However, if Buyer would probably not have agreed to lost-surplus damages ex ante, recovery of lost surplus might be inappropriate even on a reliance theory, unless the parties contracted to that effect.

son to expect the courts would use or corresponds to a term the parties probably would have agreed to if they had bargained under ideal conditions and addressed the issue. Measuring damages by a given formula cannot affect a party's incentives if he does not know, have reason to expect, or probably would have agreed that damages will be measured by that formula. Given Buyer's purposes for entering into the contract, his consumer status, and the likelihood that he would not have agreed ex ante to a lost-surplus formula, it is hard to imagine that Buyer would have known or reasonably expected that damages would be measured this way by the courts.

Are lost-surplus damages justified on the grounds that they are necessary to enable Seller to plan effectively? Although firm proof is lacking, the available evidence tends to suggest that firms selling services to consumers can and do plan effectively without expecting to collect damages measured under the lost-surplus formula. For example, the problem raised by *Example G* is characteristic of any contract for tuition, and such contracts often involve relatively large amounts. Nevertheless, many and perhaps most schools provide for refunding tuition on a declining basis if the student drops out.

The lack of a planning justification for lost-surplus damages is particularly clear in the case of a seller whose method of doing business is accurately described by the statistical-planning model. By hypothesis, such a seller does not make plans on the basis that any particular contract will be kept. If the seller's statistical forecast is reasonably accurate, his planning is therefore not interrupted by any single breach, or even by a number of breaches. Indeed, if the seller's forecast is correct, he may be said to realize his ex ante expectation in spite of breach. Such a seller therefore can plan reliably even if his damages are not measured by the lost-surplus formula.

Accordingly, in contracts for off-the-shelf services to be provided to a consumer, lost-surplus damages normally are not required by either efficiency or fairness considerations, particularly where the statistical-planning model is applicable. Rather, damages in such cases should be based on the amount necessary to (*a*) reimburse the seller for incidental costs, (*b*) provide enough deterrence to facilitate planning, and (*c*) pay for the buyer's benefit in having had a place reserved. A formula that reflects these three elements would probably be the formula the parties would have agreed to ex ante had they addressed the issue and bargained under ideal conditions.

The measurement required need not be difficult. In most cases, the law could treat a deposit by the buyer as a tacit liquidated-damages provision even if the contract does not so provide. It seems likely that most consumers expect that if they cancel a contract for off-the-shelf services they will lose their deposit (whether or not the contract so provides) but nothing more.[48] Setting damages equivalent to either an explicit liquidated damages clause or the amount of any deposit therefore would satisfy the expectation theory, unless the buyer was not aware of the liquidated-damages clause or the amount of the deposit was clearly in excess of what the buyer wonld probably have expected to forfeit on cancellation.[49] In cases where the seller neither includes a liquidated-damages provision nor requires a deposit, the law might limit damages to reliance or to the substitute-price formula, or might impose a charge based on the customary level of deposits required in the relevant industry, on the ground that this practice shows what similarly situated sellers and buyers would agree to under like circumstances.

Expectation damages measured in this way might be denominated "cancellation-charge damages." The manner in which such damages should operate can be illustrated by the airline business. The airlines' overbooking system is an application of the statistical-planning model of doing business. By use of this system, airlines can make reliable plans even without requiring no-show passengers to pay lost-surplus damages (which would be almost equal to the entire cost of the ticket if a plane has vacant seats, since there is almost no out-of-pocket cost for carrying one additional passenger). On the other hand, if passengers can make multiple bookings without cost, they may have an incentive to do so, thereby increasing the airlines' costs and making it more expensive for the airlines to compile and administer their forecasts. However, a reasonable cancellation charge would normally be sufficient to induce a passenger not to engage in mnltiple bookings, because if he does so he will end up paying more than the cost of the ticket for his flight. Accordingly, airlines characteristically do not attempt to collect lost-surplus damages, but do sometimes impose cancellation charges.

Let us now apply this analysis to the sale of relatively homogeneous goods by a merchant to a consumer, as in the following hypothetical:

Example H: Buyer, a high school teacher, wants to buy a new Buick. After shopping around, Buyer decides to buy at Seller's dealership, since Seller's price matches the lowest price available from competing dealers and Seller has a good reputation for servicing. On October 1, Buyer signs a contract to buy from Seller a new Buick, with specified accessories, for $10,000, delivery on December 1.

48. *See* Eisenberg, *supra* note 27, at 794-98.

49. U.C.C. § 2-718 would be relevant here. That section provides that if a contract for the sale of goods is breached by the buyer, the buyer is entitled to recover any amount by which his payments before breach exceeds (1) the damages set in a valid liquidated-damages provision, or, if there is no such provision, (2) 20% of the contract price $500, whichever is less, subject to an offset in the amount of the seller's damages and of benefits received by the buyer.

Buyer puts down a deposit of $250. On November 1, before the factory has begun to fill Seller's order for Buyer's car, Buyer repudiates the contract. Seller's factory cost for the Buick ordered by Buyer is $8,500, and Seller can buy as many new Buicks from the factory as it sells.

Much the same analysis can be made in this kind of case as in *Example G.* Under the lost-surplus formula, Seller would recover $1500. This result is not as draconian as the application of that formula in cases like *Example G.* Seller's projected out-of-pocket cost is significant, and the recovery therefore would be well below the entire amount of the contract price. Nevertheless, the result is not easy to justify on the theory that lost-surplus damages are required to protect the reliance interest, since Seller will have incurred little or no cost at the time of the breach. Similarly, it is unlikely that Buyer would have agreed ex ante to a provision measuring damages for cancellation in this manner. It is unlikely too that lost-surplus damages are necessary to provide Buyer with the correct incentives for efficient behavior, because Buyer probably believes that at worst he will lose his deposit. Finally, it is unlikely that lost-surplus damages are required to enable Seller to plan effectively, since Seller is likely to use a combination of the statistical-planning model and deposits to deal with the problem of breach. Indeed, casual investigation suggests that few mass retailers—including few new-car dealerships—bring suits for breach of executory contracts. Accordingly, Seller's damages should be limited to the deposit.

Conclusion

Fairness seems to require that a person who breaches a contract should pay compensation to the victim of breach for the injury he suffers as a result. But the meanings of the terms "compensation" and "injury" are fundamentally ambiguous. Under a reliance conception, the uninjured state is the condition the victim would have been in if he had not made the contract with the breaching party. Under an expectation conception, the uninjured state is the condition the victim would have been in if the breaching party had performed the contract. Which conception should govern is far from obvious.

Under certain conditions, it is unnecessary to choose between these two conceptions. In perfectly competitive markets where the rate of breach is low and the seller's business conduct is described by the traditional economic model, expectation and reliance damages will be virtually equivalent. This equivalence also will hold in imperfectly competitive markets, if market conditions do not vary materially from those of perfect competition and the seller's business conduct conforms to the traditional model applicable to these markets.

Often, however, the two measures may diverge significantly. This may occur, for example, in imperfectly competitive markets whose conditions differ materially from those of perfectly competitive markets, or in which the seller's business conduct is best characterized by the fishing model. The question of choice between competing conceptions of injury and compensation then becomes material. Traditionally, courts and commentators were united in holding that the expectation conception of injury governed in such cases. In fact, prior to the 1930's the reliance principle operated in only a covert manner. However, with the promulgation in 1932 of section 90 of the Restatement of Contracts,[50] and the publication in 1934 of Fuller and Perdue's landmark article *The Reliance Interest in Contract Damages*,[51] the reliance principle began to undergo a process of steady and impressive growth. Until the last ten years or so, this growth served to expand liability in contract. Recently, however, some commentators have taken the position that the reliance principle shonld be used to reduce liability, by substituting the reliance conception for the expectation conception in the law of damages.[52]

The reasons for this position are complex. Partly it is an attack on the very institution of contract: liability based on reliance may be conceptualized as liability in tort. It also results, however, from the apparent lack of a clear rationale for expectation damages. The reliance conception of injury reflects the basic intuition that if somebody is worse off than he was before, he has been hurt. The expectation conception reflects a much more subtle intuition, and indeed it is plausible to argue that the mere defeat of an expectation is not a very serious injury.

One purpose of this Article has been to explore the meanings of the expectation and reliance conceptions of damages, and to develop the basic formulas through which these conceptions can be expressed. A second purpose has been to show that the expectation conception has a sound basis in both fairness and policy. As a matter of fairness, one who breaches a contract ought at a minimum to compensate the promisee's reliance, and in many or most cases the expectation measure yields virtually the same damages as the reliance measure, but is much easier to administer. As a matter of policy, expectation damages best facilitate planning. As a matter of both fairness and policy, a damage measure is appropriate if it is the measure the parties probably would have chosen if they had bargained under ideal conditions and addressed the issue, and in most cases the parties to a bargain probably would have chosen the

50. RESTATEMENT OF CONTRACTS § 90 (1932).

51. Fuller & Perdue, *The Reliance Interest in Contract Damages* (pts. 1 & 2), 46 YALE L.J. 52, 373 (1936-1937).

52. *See, e.g.*, P.S. ATIYAH, THE RISE AND FALL OF FREEDOM OF CONTRACT 1-7, 754-64 (1979); *see also* Horwitz, *The Historical Foundations of Modern Contract Law*, 87 HARV. L. REV. 917 (1974).

expectation measure, because it protects reliance, facilitates planning, and provides the correct incentives for performance and precaution.

Another purpose of this Article has been to show that the term expectation is itself ambiguous. One meaning of the term, which we call the expectation principle, is that a victim of breach should be put in the position he would have been if the contract had been performed. A second meaning, which we call the expectation theory, is that damages should be based on the measure that parties situated like the contracting parties probably would have agreed to, if they had bargained under ideal conditions and addressed the damages issue. Still a third meaning, which we call statistical expectation, is that if a person makes a number of comparable contracts with a known probable rate of breach, he should enjoy the overall profit level he expected to achieve, rather than the profit level he would have achieved if the rate of breach were zero. We suggest that where the expectation principle and the expectation theory diverge—which is particularly likely where a seller forms a statistical expectation—the theory rather than the principle should govern. Thus in many cases involving consumers, where damages under the expectation principle would be measured by the seller's lost volume, the parties would probably have agreed to a much smaller measure of damages (such as forfeit of a deposit) if they had addressed the issue. It is this measure that should govern.

Indeed, it seems likely that the assault by some commentators on expectation damages results in part from the intuition that damages measured under the expectation principle are out of place in just such cases. This intuition is correct, but the way the problem should be dealt with is not by denying expectation damages, but by reconceptualizing the expectation interest in such cases through use of the expectation theory.

APPENDIX

In this Appendix, we illustrate in mathematical terms, by reference to Figure 3, the application of the substitute-price, lost-surplus, opportunity-cost, and out-of-pocket-cost formulas to a breach in a competitive market where the rate of breach is low and the parties' business conduct is described by the traditional model.

A. Substitute-Price and Opportunity-Cost Damages

We begin with the substitute-price formula. The vertical distance in Figure 3 between p_k and p_s represents the shortfall in Seller's profits caused by Buyer's breach of a contract to buy one unit of the good. We can put Seller in the position that he would have been in if Buyer had performed, thus protecting Seller's expectation interest, by setting compensation under the substitute-price formula, at $p_k - p_s$ per unit of breach. For example, if Buyer breaches a contract to purchase x_k units, then the substitute-price formula yields damages of $x_k (p_k - p_s)$, which correspond to area $A + B$ in Figure 3. The revenue from damages combined with the revenue from spot sales $x_k p_s$ will restore Seller's revenue to the level that would have been enjoyed from Buyer's performance. Thus, where the market is perfectly competitive, the Seller's business conduct is described by the traditional model, and the probability of breach is small, the substitute-price formula provides the correct measure of damages under the expectation principle.

Making the contract caused Seller to forgo the opportunity of contracting with another buyer at the price p_k. Therefore, we can put Seller in the position that he would have been in if he had *not* contracted with Buyer, thus protecting his reliance interest, by setting compensation under the opportunity-cost formula, which also equals $p_k - p_s$ per unit of breach. Thus, given the specified conditions, the opportunity-cost formula provides the correct measure of damages under the reliance principle, and the substitute-price and opportunity-cost formulas yield the same amounts.

B. Lost-Surplus Damages

We now shift to the lost-surplus formula, which awards an injured seller the profits he would have enjoyed from performance. In the traditional model of perfect competition, expected profits are nil on the last unit of a commodity exchanged in the market (whether simultaneously or by contract), because each firm supplies (or contracts to supply) the commodity until cost equals price. If the probability of breach approaches zero, a firm signs contracts until the contract price equals the marginal cost of supplying the promised goods. Since seller's surplus is another name for seller's expected profit, lost-surplus damages (price minus direct costs) are nil if the only breach that occurs is a breach of a marginal contract, that is, a contract involving one unit of seller's production. To illustrate by the graph of *Example A* in Figure 3, Seller supplies the commodity until its marginal cost c equals the contract price p_k, which occurs at output x_k. Lost-surplus damages for Buyer's breach at the margin are nil, that is $p_k - c = 0$.

A similar proposition applies when the roles of buyer and seller are reversed. If the commodity is continuous, like petroleum, or if it is purchased in quantity, like oranges (rather than being lumpy and purchased only occasionally, like boats), then each consumer buys units of the commodity until the subjective value of the last unit equals its price. At that point, since the subjective value of the last unit equals the price, there is no surplus value expected from the last unit. Consequently, lost-surplus damages are nil for seller's breach of a marginal contract, that is, a contract to supply one unit of buyer's consumption.

The generalization underlying these propositions is that lost-surplus damages for marginal breach—breach involving one unit of a commodity—are nil for continuous commodities exchanged in competitive markets with low probabilities of breach. In reality, however, expectation and reliance damages do occur in such a setting. The seller suffers expectation damages equal to the substitute-price formula, because if the contract had been performed, the seller would have sold the marginal unit at the contract price p_k rather than the lower spot price p_s. The seller suffers opportunity-cost reliance damages, because if not for the contract with the buyer, the seller would have contracted to sell the marginal unit to someone else at the same price, and the other buyer probably would have performed. Correspondingly, the buyer suffers expectation damages equal to the substitute-price formula, because if the contract had been performed, the buyer could have resold the marginal unit at a profit equal to spot price minus contract price. The buyer suffers opportunity-cost reliance damages, because if not for the contract with the seller, the buyer would have contracted to buy the marginal unit from someone else at the same price, and the alternative seller probably would have performed. Accordingly, the lost-surplus formula undercompensates the expectation and reliance interests for marginal breach in a competitive market under the traditional model of business conduct.

Suppose that the breach involves a number of units. Even if expected profits are nil on the last unit sold, they may be positive on the total units sold. To illustrate, in Figure 3, although the contract price p_k equals the production cost c for the last or marginal unit, labeled x_k, it exceeds the cost of production for the units preceding the last, which are called the "inframarginal" units. Since price exceeds costs on inframarginal units, a profit is made on their production. Thus lost-surplus damages are positive for buyer's breach on contracts that are large enough to involve inframarginal units. In such cases, however, lost-surplus damages often would be overcompensatory.

For example, suppose that Buyer contracts with Seller to purchase all x_k units of the goods at the price p_k. Buyer breaches and Seller is forced to sell the goods at the spot price p_s. Lost-surplus damages are equal to area $A + C$, that is, the entire area in Figure 3 between the contract price line p_kD_k and the cost curve c. If, as a result of the breach, seller will have available x_k units for sale to third parties, the breach does not result in a shortfall of profits equal to this area. Rather, it results in a shortfall equal to area $A + B$, which corresponds to damages measured by the substitute-price formula. As drawn, $A + C$ is larger than $A + B$, which illustrates that for breach on a large number of units (inframarginal breach), lost-surplus damages are often overcompensatory for a seller in a competitive market where the traditional model of business conduct applies. Put differently, in such cases the lost-surplus formula would be appropriate only if it were corrected by an add-on to account for the surplus-producing transaction that the breach makes possible—that is, for the sale of the breached unit at a profit equal to the spot price minus the cost of production. If that correction is made, however, the lost-surplus formula collapses into the substitute-price formula.

The same kind of argument applies when the victim of breach is a buyer. A buyer purchases goods until the subjective value of the last unit is no more than its market price. However, he usually values all but the last unit at more than the market price he agrees to pay. Thus a buyer's lost-surplus damages for seller's breach of a contract to supply a large number of units would equal the surplus the buyer expected to enjoy. However, this measure often would overcompensate the buyer when a substitute can be purchased.

In short, lost-surplus damages generally do not provide correct compensation for either the reliance or the expectation interest in competitive contract markets where the seller supplies commodities until cost equals price, the seller's conduct is described by the traditional model, and the rate of breach is low. Under such conditions, therefore, the lost-volume measure of damages, which is a special variant of the lost-surplus formula, is inappropriate.

C. *Out-of-Pocket-Cost Damages*

The out-of-pocket-cost formula awards a victim of breach the excess of his cost incurred over the realizable value produced by that cost. The cost incurred by a seller to produce a marginal unit is the marginal cost. If the breach occurs after the unit has been produced, the realizable value produced by its cost is normally the commodity's spot price at the time of breach. Therefore, a seller's out-of-pocket-cost damages for breach on a completed marginal unit equal the shortfall between marginal cost and spot price.

Relating out-of-pocket-cost damages to substitute-price damages in the case of a marginal unit is straightforward. As explained, if the probability of breach is small and the market is competitive, a seller normally produces commodities until the contract price equals the marginal cost. Hence, in the case of a marginal unit the difference between the marginal cost and the spot price equals the difference between the contract price and the spot price. In sum, seller's out-of-pocket-cost damages on a marginal unit normally equal substitute-price (and therefore opportunity-cost) damages where the market is competitive and the probability of breach is small.

To illustrate by the graph of *Example A* in Figure 3, substitute-price (and opportunity-cost) damages are the difference between the contract price and the spot price: $p_k - p_s$. The out-of-pocket loss from breach on the last of the x_k units produced is the difference between the marginal cost, which we denote $c(x_k)$, and the spot price: $c(x_k) - p_s$. As noted, the seller produces the commodity until its marginal cost equals the contract price, that is, $c(x_k) = p_k$. Thus, the two damages formulas are equal; $p_k - p_s = c(x_k) - p_s$.

Of course this conclusion is true only for marginal breach. The cost of inframarginal units, which are any units on the cost curve c except the last of the x_k units produced, is less than the contract price p_k, as can be seen from Figure 3. Consequently, out-of-pocket damages on inframarginal breach will be less than substitute-price damages and, consequently, less than expectation damages.