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A Theoretical Postscript: Microeconomics and the Lost-Volume Seller

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A Theoretical Postscript: Microeconomics and the Lost-Volume Seller

TO A CONSIDERABLE EXTENT, the question of how to treat the lost-volume seller presents a problem in economics. The arguments asserted for providing him a remedy in excess of the traditional contract-price-minus-market-price damages are anchored to the peculiar economic characteristics of his market, characteristics which cause him theoretically to "lose" a sale whenever one of his buyers breaches. Briefly stated, these critical characteristics are (1) a limited number of potential buyers, each of whom will eventually buy from the seller if he can supply them, and (2) a present capacity to supply all of these potential buyers at the going price.

Before a rule of law is fashioned to deal specifically with the lost-volume seller's problem, a preliminary inquiry should be made into the actual frequency of the economic conditions which would bring this particular market phenomenon about. Professor Shanker argues that an economic analysis of the problem casts considerable doubt on whether the theoretical lost-volume seller ever exists in a real world full of efficient and competitive merchants.¹ But the application of economics goes beyond the determination whether the troubled lost-volume seller postulated by the commentators has a real world counterpart. Since the damages formula of Uniform Commercial Code section 2-708(2) relies upon standards like "as good a position as performance would have done" and "profit (including reasonable overhead) which the seller would have made from full performance,"² measuring damages under this section requires a good hard look at the economics of the lost-volume seller's operations. To provide the reader with a better analytical grasp on these problems, this Postscript will discuss some of the basic economic models which could be used to assess the situation of the lost-volume seller.

I. THE PURE-COMPETITION MODEL

A. *Cost Structure*

Over the long run each producer has considerable latitude in

¹ 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, 704 (1973) [hereinafter cited as Shanker].

² UNIFORM COMMERCIAL CODE § 2-708(2).

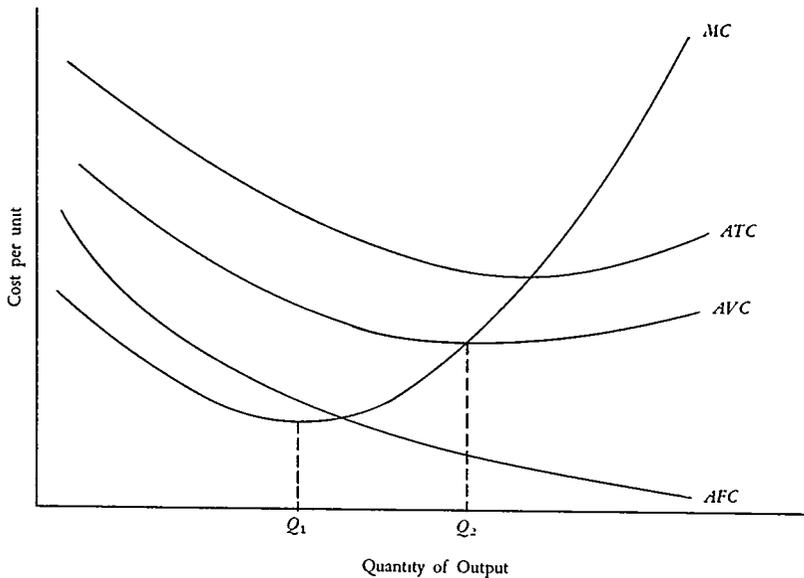
choosing the combination of production inputs (such as plant capacity, equipment, and laborers) that he will utilize in manufacturing products. But in the short run, which is the period over which the producer will "lose" a sale if he is to lose one, his latitude is considerably decreased. To expand the rate of production in the short run, the producer's only option may be to increase the size of his work force or the amount of overtime worked.

As the producer continues to expand his rate of output, by increasing the size of his work force, for example, without corresponding increases in his plant or equipment, he will eventually reach a point where overall efficiency is sacrificed, where the increase in total product brought about by each new worker gets smaller and smaller. This is the phenomenon of "diminishing marginal returns" to which Professor Shanker refers.³ Translated into terms of dollar expenditures, it means that as output is increased beyond the point of diminishing marginal product, if W represents the dollar amount of wages paid to each worker, for each additional W expended the resulting addition to total output constantly decreases. Phrased differently, the *marginal cost* of producing each additional unit of output increases. What results is a marginal cost (MC) curve similar to the one depicted in figure 1. The horizontal axis measures flow of output, in terms of units produced over a given time period. The vertical axis measures costs per unit. At the level represented by point Q_1 , diminishing marginal returns set in. The curve designated AFC represents the average fixed costs (such as interest payments, depreciation on plant and equipment, and a reasonable amount of total profit)⁴ per unit of output and can be used as an approximation for "reasonable overhead" as used in section 2-708(2). At low levels of output, this curve slopes sharply down-

³ Shanker 705 & n.31.

⁴ In strict economic usage, the term "cost" includes not only expenses in the ordinary accounting sense but also a "normal profit," a return sufficient to keep the owner's funds invested in the business. This normal profit is treated as a component of fixed costs. Returns in excess of this amount, as measured by total sales revenue minus total economic "cost," are termed "supernormal profits." See D. WATSON, *PRICE THEORY AND ITS USES* 148-49 (2d ed. 1968). As used in section 2-708(2), "profit" is meant to include total profit per unit — the normal return as well as any supernormal one. Since unit price minus per unit total cost, when cost is used in the economic sense, equals supernormal profits only, this formula will understate the amount of profit for purposes of section 2-708(2). This problem is only a temporary one, however. When average fixed costs are added to per unit supernormal profits to arrive at the statutory "profit (including reasonable overhead)," per unit normal profit is included in the total since it is a component of fixed costs. When the word "profit" is used in this Postscript, unless otherwise specified, it refers to supernormal profit only and does not represent the entire return to the producer.

FIGURE 1
SHORTRUN COST CURVES



ward as fixed costs are divided among an increasing number of units; as output increases this slope tapers off significantly. The *AVC* curve signifies the average variable cost incurred in producing a given level of output. Average variable cost initially decreases, reflecting the low marginal cost of making additions to total output. The curve continues to decline even after the point of diminishing marginal returns is reached and up until the point Q_2 where average cost is no longer in excess of marginal cost. The average total cost (*ATC*) curve represents the sum of average fixed costs and average variable costs. Like the *AVC* curve, the *ATC* curve has its minimum point at its intersection with the *MC* curve.⁵

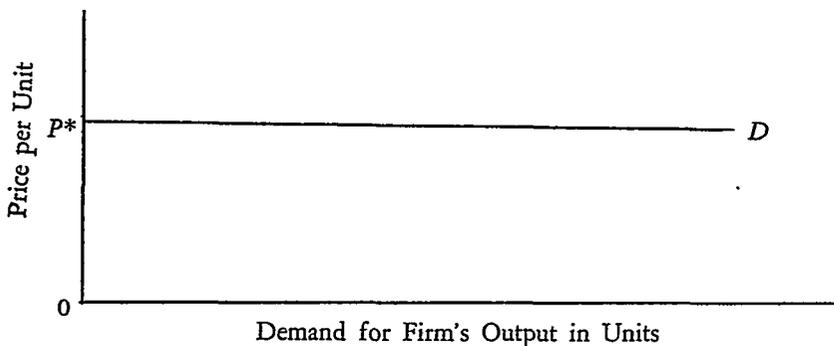
B. *Determination of the Optimal Level of Output*

An industry is said to embody *pure competition* when it is comprised of numerous firms producing a standardized product. The critical element is that each producer's share of the total output of the industry is so insignificant that, in his view, his decisions as to the amount of output to produce and ultimately to sell have no impact upon the price he is to receive for his goods. A good

⁵ For a mathematical discussion of the characteristics of these shortrun cost curves see *id.* at 226-27.

example is the small grain farmer. The price to be paid for his grain is determined by the aggregate supply and demand for the entire industry's product. At this market price, the individual grain farmer believes he can sell as much (or as little) output as he chooses to produce. In other words, the demand curve for the product of each individual farmer is horizontal, as represented in figure 2, with price equal to the prevailing market price P^* .

FIGURE 2
DEMAND CURVE FOR INDIVIDUAL FIRM



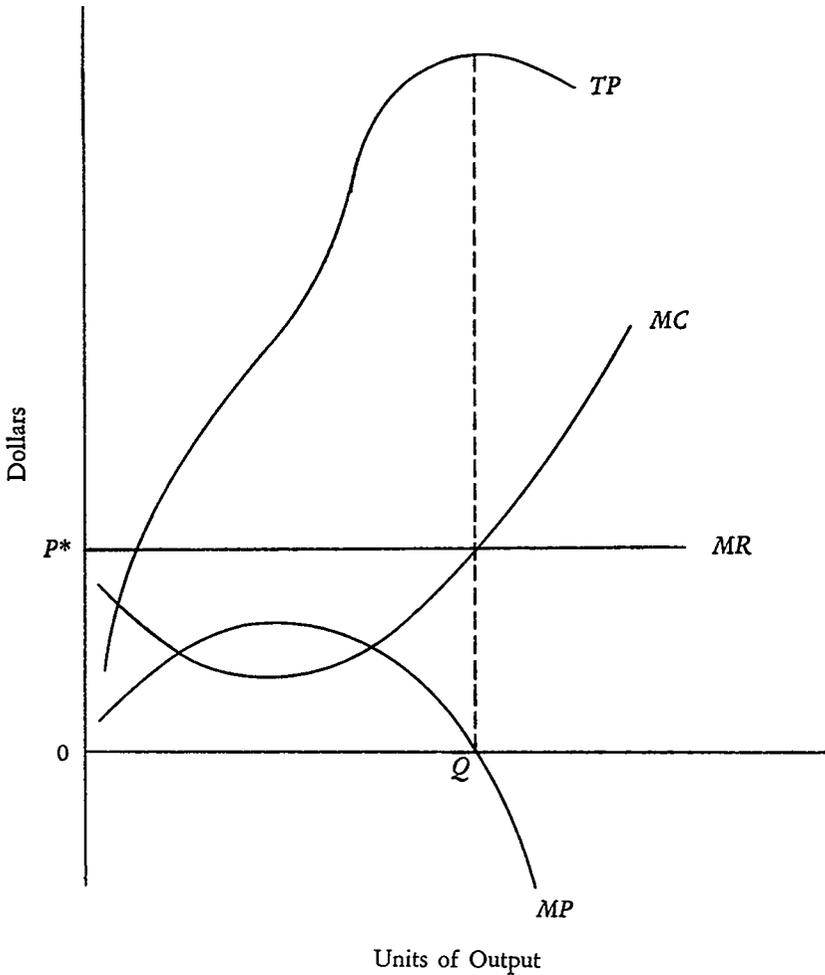
The analysis of how much output an individual firm will decide to produce over a given period rests on the assumption that the firm will make its output decisions with the objective of maximizing the total amount of profits it expects to receive.⁶ Because total profits are equal to total revenues minus total costs (fixed and variable),⁷ increasing output results in increased profits only so long as the increment in total revenue derived from selling each additional unit exceeds the increment in total costs incurred in manufacturing it. Consequently, the firm should expand its production to the point where the marginal revenue from manufacturing a new unit is no longer greater than the marginal cost, or, phrased differently, to the point where marginal profit is reduced to zero.

⁶ For a discussion of the validity of the profit-maximization assumption as a tool for analyzing business behavior see R. CAVES, *AMERICAN INDUSTRY: STRUCTURE, CONDUCT, PERFORMANCE* 2-6 (2d ed. 1967).

⁷ More precisely, total revenues minus total costs equal total *supernormal* profits. This distinction does not affect the profit-maximization analysis. Since the amount of normal profit is constant, and therefore does not vary with the level of output, the point where supernormal profits are at a maximum will also be the point where total profits are at a maximum.

For the firm operating under pure competition, like the small grain farmer, the marginal revenue derived from selling each unit is constant. Since the firm can sell as many units as it pleases at the going market price, the marginal revenue of the n th unit as well as the marginal revenue of the first unit is equal to that market price. To maximize its profits the firm should therefore produce that level of output where the marginal cost of the last unit produced equals the going market price. This is illustrated in figure 3. Marginal revenue (MR) is equal to P^* , the going market price, at all levels of output. The MC curve is taken from figure 1. The MP curve, signifying marginal profits, represents the difference between MR and MC at each level of output. The TP curve is total

FIGURE 3



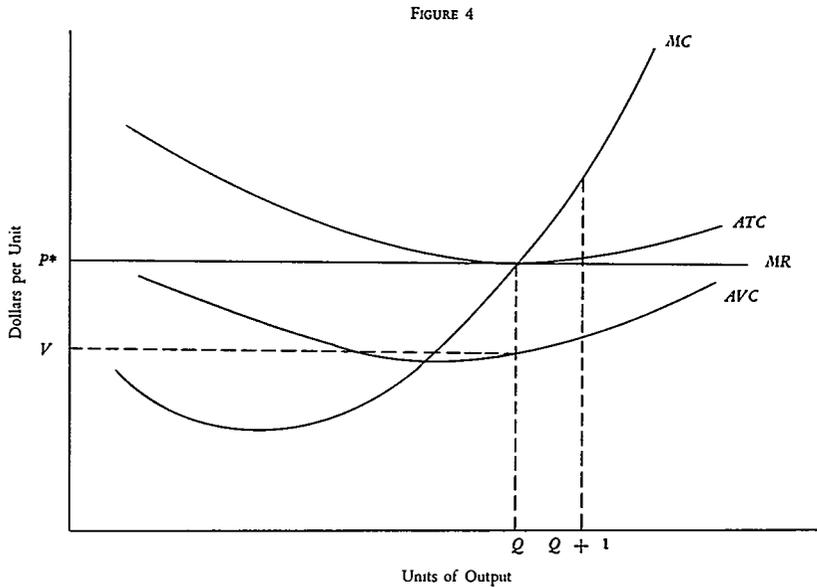
profit, which can be viewed as cumulated marginal profit. From the graph it can be seen that the firm will maximize its total profits by producing Q units, which is the output level at which $MP = 0$ and the MC curve intersects the MR curve.

This pure-competition model, while providing a useful heuristic for analyzing the firm's production decisions, does not accurately depict the situation which has been postulated as facing the lost-volume seller. In pure competition, there can never be a "lost" sale, since by definition the firm can dispose of whatever output it produces at the going market price. If the lost-volume seller is to have any existence whatsoever it must be in an industry where the market and the market price is somewhat sensitive to the quantity of product which the seller is marketing. But after these problems with applying the model have been recognized, the pure-competition framework still sheds light on some of the issues critical to the lost-volume problem.

One of these issues is the notion, criticized by Professor Shanker,⁸ that many sellers have an unlimited capacity to supply their product at the market price. If the profit-maximization hypothesis has validity, it follows that a firm with price and cost curves similar to those depicted in figure 3 will decide to produce and sell Q units and Q units only, notwithstanding the fact that it can sell more and notwithstanding the fact that it possesses the physical capacity to produce more. While the hypothetical firm could expand its rate of production to sell $Q + 1$ units in a given period, to do so would prove unprofitable. The clear result of this reasoning is that in the event one of the firm's buyers breaches a sales contract, and the firm goes ahead and produces and sells Q units over the time period in question, as it should in order to maximize its total profits, the firm should not be entitled to recover a profit from the breaching buyer. Even if the firm could somehow prove that the buyer's breach caused it to "lose" the sale of what would have been the $(Q + 1)$ th unit, the firm should not recover the profits from the $(Q + 1)$ th sale, because, for profitability reasons, the $(Q + 1)$ th sale would never have been actually made.

The inequity of allowing the pure-competition firm to use section 2-708(2) to collect an extra profit for the $(Q + 1)$ th sale is demonstrated in figure 4. In that diagram, C equals the average total cost of producing Q units. Since it is assumed that the industry in which the firm is operating is in longrun equilibrium, C is equal

⁸ Shanker 704-05.



to the price P^* , and the only profit which the firm earns is its normal profit.⁹ Operating at its profit-maximization point Q , where MC equals MR , the firm has average variable costs equal to V , and generates total revenues ($P^* \times Q$) which exceed total variable costs by an amount sufficient to pay the firm's fixed costs and return to the firm a normal profit. Had the firm actually sold and been forced to produce $Q + 1$ units, this total excess would have been decreased by the amount by which the marginal cost of producing the $(Q + 1)$ th unit exceeds P^* . Moreover, because ATC is greater than P^* at $Q + 1$, the $(Q + 1)$ th sale would have reduced the firm's total profits below a normal rate of return.

The clear implication of the preceding analysis is that the firm should not be allowed to recover a profit because it did not make

⁹ In theory, if P^* were greater than average total costs for the firms in the industry and these firms were therefore earning supernormal profits, new firms would be lured into the industry. Investors would be induced to shift their capital out of industries where only a normal return could be earned and into the industry which offered the prospect of supernormal profits. As these new firms entered, their additions to the industry's present output would cause supply to exceed demand and produce a reduction in price. This reduction would continue until the price fell to the level of average total costs. When this occurs, profits in the industry would be reduced to a normal return and outside firms would no longer be encouraged to enter. Consequently, longrun equilibrium is achieved in an industry only when the firms comprising the industry are earning only a normal return. See P. TRESKOTT, *THE LOGIC OF THE PRICE SYSTEM* 195-96 (1970). While the analysis that follows will assume that the industry is in longrun equilibrium, this assumption is not critical to the reasoning. The same conclusions would follow even if the firm were in a disequilibrium situation.

the $(Q + 1)$ th sale. But unfortunately for the breaching buyer, a court of law, if presented with this case and persuaded that the firm "lost" a sale because of the buyer's breach, is unlikely to employ this economically correct marginal-profit analysis. Instead, it would probably estimate the profit that was foregone on the lost sale by the average profit and contribution to overhead earned by the firm on the sales it did make. If this is the case, the firm will be awarded damages in the amount of $P - V$, an undeserved recovery, since had the sale in fact occurred, the firm would have lost money.

Admittedly, it does not follow from the preceding discussion that every sale which a profit-maximizing firm loses would actually have caused a reduction in total profits if it had been carried out. Had the hypothetical firm been able to produce and sell only $Q - 2$ units because of breaching buyers, then, since the firm could profitably have made the Q th and $(Q - 1)$ th sales if it had had the opportunity, it could correctly be said that the firm was deprived of a profit.¹⁰ The important point, though, is that even if the firm did lose a sale and profit, the recovery it could receive under section 2-708(2) is likely to prove excessive. Applying that Code section to the firm described in figure 4, a court would probably look at the amount by which price exceeds *average* variable costs and incorrectly conclude that each additional unit of output would make a healthy contribution to profit and overhead. Recognizing that court and counsel lack the tools and the data to conduct the sort of marginal cost and revenue analysis employed in the preceding discussion on a case-by-case basis, the more reasonable working presumption is that the firm is attempting to maximize its profits and is therefore operating at a level of output where the high marginal cost of producing the lost-sale units would have offset most of the marginal revenue that would have been received had the buyers not breached, and in fact may have exceeded it.

II. THE MONOPOLY MODEL

The preceding analysis has focused upon the plight of the lost-volume seller operating in a purely competitive industry. But fre-

¹⁰ If $Q - 1$ units could be sold then the firm may or may not have lost some profits depending upon the circumstances. The profit-maximization point Q is defined as the highest level of output at which marginal cost does not exceed marginal revenue. At Q it could be that marginal revenue and marginal cost are equal and therefore that production of the Q th unit does not produce an increase in total profits.

quent in the American economy are industries where factors like market concentration, product differentiation, or barriers to entry make the pure-competition model inapplicable.¹¹ Economists classify these industries under the headings of monopolistic competition, oligopoly, and pure monopoly. Regardless of the label applied, these industries share the characteristic that the sellers base their output decisions upon the realization that, unlike firms in pure competition, they cannot dispose of an unlimited amount of output at the going market price. To increase the number of units sold, the firm must be willing to accept a decrease in price.

To evaluate the lost-volume seller's situation in these industries where the amount the firm sells has an impact on the price it will receive, the polar case of imperfect competition, pure monopoly, will be considered. Pure monopoly exists where one firm is the only producer of a good or service that has no close substitutes;¹² firm and industry are identical. Thus, in pure monopoly, the traditional downward-sloping demand curve for the industry's product, where the quantity of units demanded increases as price goes down, is the demand curve faced by the individual firm. In figure 5 this monopolist's demand curve is labelled *D*. The *MR* curve represents marginal revenue. In pure competition, because the firm could receive the going market price for each new unit sold, marginal revenue equalled price for every unit of output. For the monopolist, on the other hand, increasing sales requires reducing the price. As a consequence, the additions to revenue that result from selling additional units are partially offset by the reduction in overall price which is necessary to achieve the new level of sales volume. For example, using the curves in figure 5, if output is increased by one unit from Q_1 to Q_2 , total revenue will be increased by P_2 , but since the unit price must be reduced to generate the increased sales, the increase in total revenue must be netted against a reduction in the amount of $(P_1 - P_2) \times Q_1$. The magnitude of the net increase is C , the marginal revenue of the Q_2 th unit. Given a linear demand curve as depicted in figure 5, the marginal revenue curve is also linear and slopes downward at a rate twice that of demand.¹³

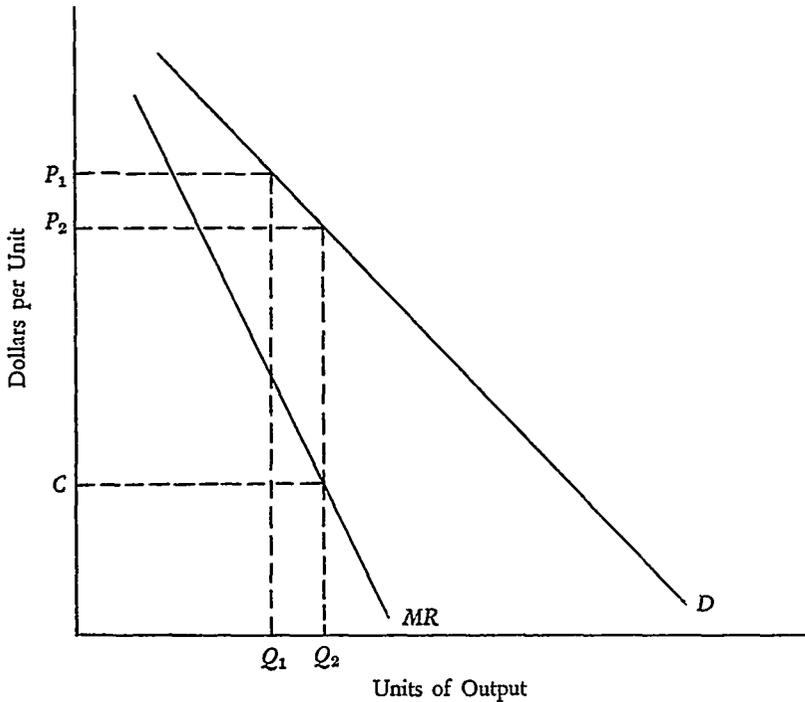
Like the firm operating in pure competition, the monopolist makes his output decisions with the objective of maximizing profits

¹¹ For a quantitative study of the market structures which exist in the American economy see C. KAYSEN & D. TURNER, *ANTITRUST POLICY* 24-43 (1965).

¹² D. WATSON, *supra* note 4, at 304-05.

¹³ For a mathematical derivation of the relationship between the *D* and *MR* curves see D. WATSON, *supra* note 4, at 339.

FIGURE 5

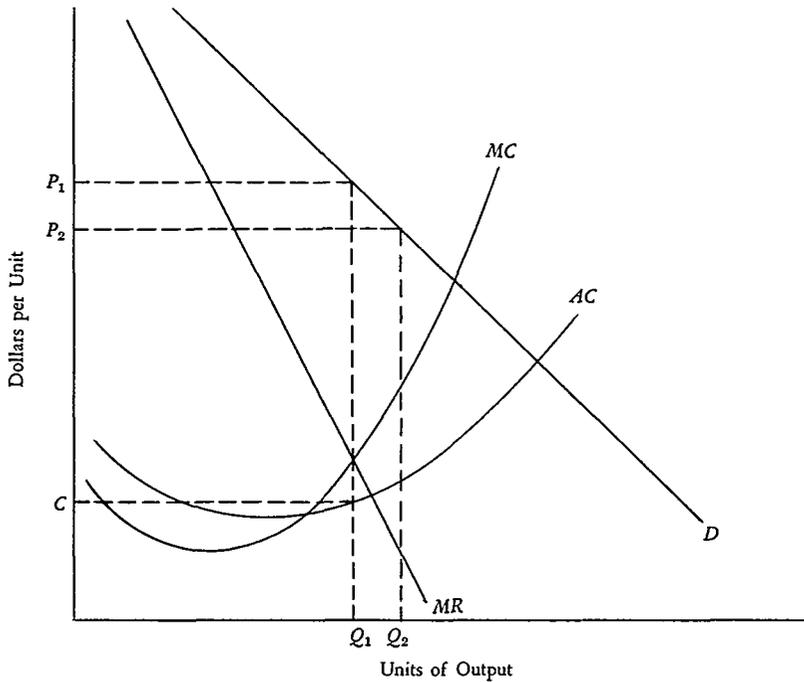
DEMAND AND MARGINAL REVENUE
FOR THE MONOPOLIST

and finds that his profits are maximized at the point where the marginal cost of the last unit produced equals its marginal revenue. As indicated in figure 6, the monopolist faces cost curves very similar to those confronting the purely competitive firm. He will operate in a range of output where his marginal costs are rising and will attempt to produce at the specific point Q_1 where MC intersects MR . This level of output in turn determines the market price P_1 since the monopolist's demand curve dictates the price at which any given quantity of output can be sold. At this combination of price and output, the monopolist will receive an average supernormal profit per unit equal to $P_1 - C$.

To apply this theoretical model to the problem of the lost-volume seller, assume that the curves contained in figure 7 represent Boeing's production and sale of 747's in the White and Summers hypothetical¹⁴ to which both Mr. Schlosser and Professor Shanker

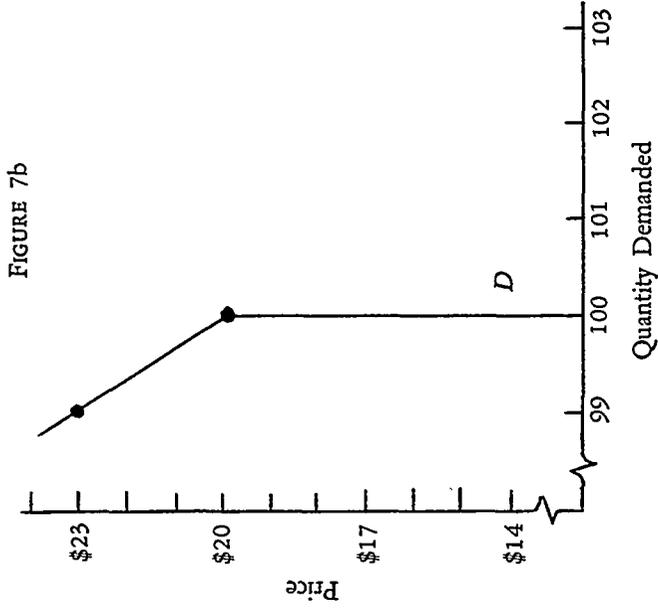
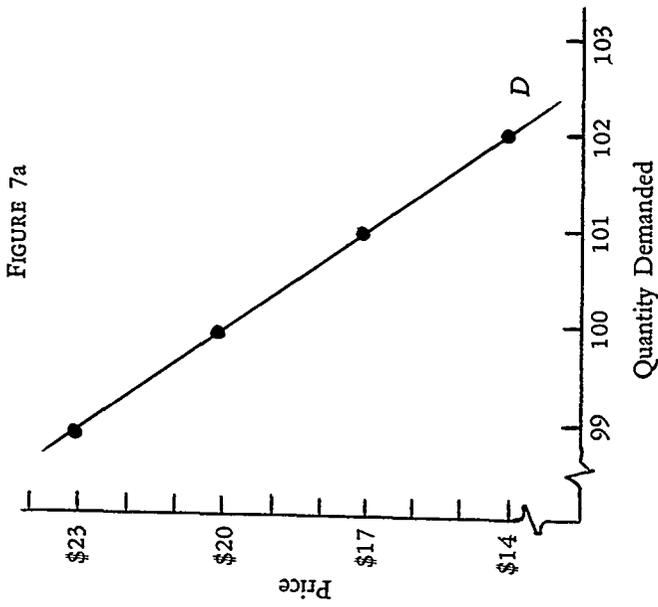
¹⁴J. WHITE & R. SUMMERS, HANDBOOK OF THE LAW UNDER THE UNIFORM COMMERCIAL CODE § 7-13, at 234-35 (1972).

FIGURE 6



allude. In conformity with the facts used in the hypothetical, Q_1 would be equal to 100 planes per year and P_1 would be equal to \$20 million. At first blush, it may appear that the hypothetical Boeing Corporation depicted in figure 6 qualifies as a lost-volume seller, since at a price of \$20 million per plane, Boeing's market is comprised of 100 and only 100 buyers. If one of those buyers breaches, Boeing will only be able to sell 99 planes at the \$20 million price. But if the demand curve in figure 6 accurately represents Boeing's situation, the firm need not lose a sale. While it may have only 100 buyers at the \$20 million price, if it reduces the price of the plane, the number of buyers will be increased. Eventually some price level should be reached that will be low enough to induce the 101st buyer to purchase. In figure 7a this level is postulated as being \$17 million. The only true lost-volume situation is that represented in figure 7b — where the demand curve suddenly breaks off and becomes vertical so that there is no price at which one more sale can be made. While this occurrence is theoretically possible, it seems far more plausible that the demand for 747's is similar to the curve in figure 7a, that there exist several potential purchasers of the 747 whose volume of business is not

FIGURE 7
DEMAND FOR BOEING 747's



sufficiently great to warrant a \$20 million outlay for the plane but who would find the investment economically feasible if the price of the plane were significantly lower.

So long as there is some price, no matter how low, at which these marginal purchasers will find it worthwhile to buy the plane which was the subject of the breached contract, there is no lost sale.¹⁵ The section 2-708(2) remedy is unnecessary because the provisions of section 2-706 which give the seller damages in the amount of the difference between the contract price and the resale price will be adequate to redress fully the seller's loss. The only practical problem in this example is assuring that in the calculation of damages for section 2-706 the "resale" is viewed as being the one low sale for \$17 million and not one of the 99 original sales for \$20 million.

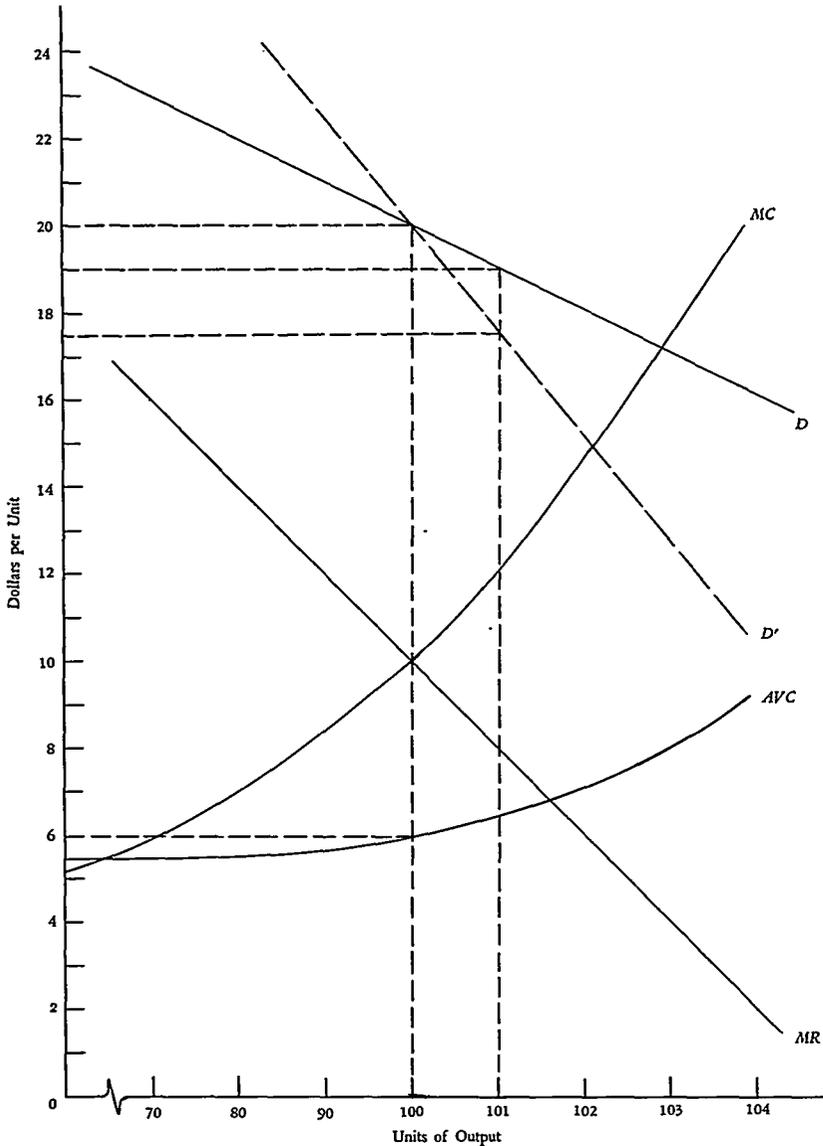
There could, however, be cases where the section 2-706 resale remedy does not work this satisfactorily. For example, suppose that the goods were more fungible than the Boeing 747 and that the seller, after correctly deciding that his profits would be maximized if he produced 100 units and sold them for \$20 each, made a contract to sell the first 10 units to X. The seller goes ahead and produces 100 units, and then X refuses to accept the goods. It is questionable whether the seller, knowing that over the period in question he will now have only 90 other buyers at the \$20 price, could continue to offer the goods for \$20 on this original 90, but upon finding a buyer who would be willing to buy the 10 remaining units for \$19, drop the price for that sale only and then immediately raise it back to \$20.¹⁶ Instead, the seller might have to offer all 100 units at the \$19 price.

¹⁵ Mr. Schlosser appears to concede that in many instances the seller may avoid losing a sale by lowering his price, but adds that the lost-volume phenomenon will still occur where standard-priced goods are involved. Schlosser, *Constructing UCC Section 2-708(2) to Apply to the Lost-Volume Seller*, 24 CASE W. RES. L. REV. 686, 688-89 & n.9 (1973) [hereinafter cited as Schlosser], citing Harris, *A Radical Restatement of the Law of Seller's Damages: Sales Act and Commercial Code Results Compared*, 18 STAN. L. REV. 66, 96 (1965). The concept of standard-priced goods is discussed at text accompanying note 19 *infra*.

¹⁶ At first appearance it might seem that the seller could carry out the ploy discussed in the text by pricing his goods at \$20 per unit, waiting until he had no more buyers at this price (which would be after the 90th unit was sold), and then gradually reducing his price until the remaining units were sold. But it must be remembered that the concept of demand used here represents an ongoing *flow* of demand, not a fixed one-time demand for a particular stock of goods. The postulated demand for the seller's product is 100 units *per year*. In other words, he should be able to sell one unit every 3.65 days. By reducing his price he might be able to increase this rate. In view of this nature of the seller's demand, it would appear that the only way for the seller to achieve this price-discrimination strategy would

Figure 8 provides a framework for analyzing this seller's situation. Initially, the seller ascertains that he can maximize profits

FIGURE 8



be by (1) publicly offering the goods for \$20, (2) correctly ascertaining that he could sell the additional 10 units if he reduced his price to \$19, and then (3) subtly transmitting the news to the marketplace that although the posted price of the goods was \$20 he might be willing to drop his price to \$19. Then, when a buyer appears, the seller must correctly assess whether he is willing to buy for \$20 or not. If he is, he pays \$20; if not, the seller drops his price to \$19 for that sale only. Even

by producing 100 units and selling them for \$20 per unit. At this level of output he anticipates total revenues of \$2,000 and total variable cost of \$600 (\$6 average variable cost multiplied by 100 units), which leaves a \$1,400 contribution to fixed costs and profit. But after *X* breaches, the only way the seller can dispose of all 100 units is by lowering his price to \$19.

It appears therefore that once *X* breaches, the seller has two options. He can take the 10 units representing the breached sale off the market, offer for sale the other 90 units only, and by these actions keep his price at \$20. Alternatively, he could sell all 100 units at \$19.¹⁷ Because the seller has already manufactured all 100 units, his fixed and variable costs will not change, regardless of the course of action he chooses. The only difference will be in total revenue. Consequently, ignoring for the moment the differences in damages remedies that might result from the two alternatives, the seller's choice is likely to be dictated by the shape and slope of his demand curve. If he withholds the 10 units he can receive \$1,800 (90 units at \$20). By selling all 100 he can increase his total revenue by \$100 (100 units at \$19), but only so long as his demand curve is that represented by curve *D*. If, on the other hand, curve *D'* was the more accurate portrayal of the demand curve the seller faces, the only way in which he could dispose of all 100 units is by dropping his price to \$17.50. In this case, expanding sales would result in a \$50 decrease in total revenues (100 units at \$17.50).

It is in this second hypothetical (where the seller faces demand curve *D'*) that a real-world manifestation of the lost-volume phenomenon can finally be found. But it is not because the seller cannot sell his product beyond a limited group of buyers as postulated by the commentators and depicted in figure 7b; rather, it results from the impact of the price reductions necessary to sell all his output. If, as is the case in the second hypothetical, the magnitude of the necessary price reductions in effect precludes the seller from reselling the 10 units which were the subject of the breach, then contract-price-minus-market-price damages are not sufficient. In this situation the seller should be entitled to recover the profit lost

assuming that this pricing scheme could be legally implemented under the antitrust laws, it seems highly doubtful that the seller would possess the omniscience to carry it out effectively.

¹⁷ The seller could, of course, choose to sell only part of the extra 10 units to make the total sold, say, 93 units. In some cases this may be the optimal decision. The hypotheticals used here are structured so that the seller achieves optimality by selling all or selling none, but the ensuing analysis applies with equal force to cases where profits are maximized by selling part.

on the breached sale under section 2-708(2). Under this section he can recover profit including reasonable overhead in the amount of \$140, which represents price minus average variable cost on the 10 unsold units as depicted in figure 8. When this recovery is added to the \$1,260 the seller received from the 90 units he sold, the total corresponds to what the seller would have received without the breach, \$1,400. Unfortunately, in attempting to use section 2-708(2) the seller will encounter all the problems discussed in the preceding Comments.¹⁸ For example, if the breached sale is for the first 10 units, and the seller resells these units to buyers who would otherwise have purchased units 11 through 20, then, using the literal reading of section 2-708(2), advocated by Professor Shanker, the entire amount of the resale proceeds would be subtracted from the recovery so that the seller will recover zero damages even though he ends up with 10 units which he cannot sell.

If, by using the arguments advanced by the various commentators, section 2-708(2) can be interpreted to give an action for profits to the monopolist described above who must withhold some units of output to keep his prices at a reasonable level, then the remedies available to the other class of monopolists, those who decide to reduce prices and sell all their output, should be reconsidered. For example, the seller facing demand curve *D* in figure 8, had there been no breach, would have had \$2,000 in total revenues and a \$1,400 contribution to fixed costs and profit. After the breach, if he sells his entire output at \$19, he will have revenues of \$1,900 plus a section 2-708(1) remedy for \$10 (contract price [\$20] minus market price [\$19] on the 10 units). Since his total variable costs remain unchanged, the seller has available for fixed costs and profits only \$1,310. He ends up in a worse position than the seller who withheld output since that seller netted the full \$1,400. This scheme of remedies provides an inducement for the monopolist to keep his goods off the market and afterwards argue that a resale was economically infeasible because of the price reductions necessary. The more desirable remedy from a policy standpoint would seem to be one which encourages the seller to place all his output on the open market and thereby fulfill as much of the existing demand for his product as is possible. After the seller has sold all that he has produced, he can then go against the breaching buyer for any difference in total profits caused by the breach. In the hypothetical, this would give the seller an action for the \$100 difference.

¹⁸ Shanker 697-700; Schlosser 689-91.

(The difference will be \$100 instead of \$90 because when the purchaser elects to sue under section 2-708(2), he loses his section 2-708(1) remedy.)

Whether this remedy can be implemented within the present strictures of section 2-708(2) is certainly open to question. Assuming that the section is available, the monopolist's remedy will be limited to the profit plus overhead he could have earned on the breached sale. It is possible that to dispose of all his output the seller would have to lower his price by such an amount that the loss in overall revenue would exceed the profit-plus-overhead measure. (This would be the case, for instance, if the seller with demand curve D' decided to drop his price to \$17.50 in order to sell all his units). In this one group of cases it would appear better for the seller to avoid excessive damages by keeping his prices at their original level and then suing the buyer for the price under section 2-709.

III. SUMMARY OF CONCLUSIONS

If the seller is operating in a market characterized by pure competition, where there are numerous small sellers producing a standardized product, he cannot properly be viewed as "losing" a profit as a result of one of his buyer's breaching a sales contract. First, in pure competition, the seller can by definition dispose of as much output at the going market price as he chooses to produce. Second, even if the pure-competition seller was somehow forced to lose a sale because of the breach, it is doubtful that the lost sale would create an appreciable reduction in the seller's total profits. The reason is that for any profit-maximizing firm (whether it is operating in pure competition or not) the marginal sales, which are the ones that will be "lost," will probably either produce only insignificant amounts of profit or be unprofitable. Thus, in cases of pure competition, the need to fashion for the seller a lost-profits remedy does not exist.

If the seller is operating under imperfect competition, on the other hand, that is, if the structure of his market is either monopolistic, oligopolistic, or monopolistically competitive, he cannot sell any amount of output he chooses at the going price. But nonetheless he should not "lose" a sale because of the buyer's breach, since he has the power to lower his price to a level that will induce a new buyer to purchase the unit. While his revenues will not be as great as they would have been had the original buyer performed, the

seller does not forego a sale. This conclusion that the seller can dispose of his entire output by reducing his price is subject to two exceptions, however. One is the rare situation where there is some finite limit on the number of potential buyers. The second and probably more frequent exception is where the reduction in total revenues that will result from decreasing the price exceeds the corresponding increase in revenues derived from selling the additional unit. In these two instances the lost-volume phenomenon does in fact exist in the real world and there follows the necessity to provide the seller with an appropriate remedy under section 2-708(2).

There may be one other economic situation, which may be viewed as something of a hybrid of pure and imperfect competition, where lost-volume theory will be applicable. This occurs when the seller is not operating under pure competition, and therefore faces a finite demand for his output at the going price, but for some reason is prevented from reducing his price in order to increase his sales volume. The "standard-priced" goods mentioned in the comments to section 2-708(2)¹⁹ might fit into this category. But to qualify for lost-volume treatment under this theory, it would seem that the seller not only must be prohibited from varying the market price of his product but must also be precluded from offering any other forms of inducement to potential buyers that might enable the seller to dispose of his stock. And such a case of complete seller inflexibility would appear unlikely.

¹⁹ UNIFORM COMMERCIAL CODE § 2-708, Comment 2, *discussed in* Schlosser 688-89 & nn.8-9.

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