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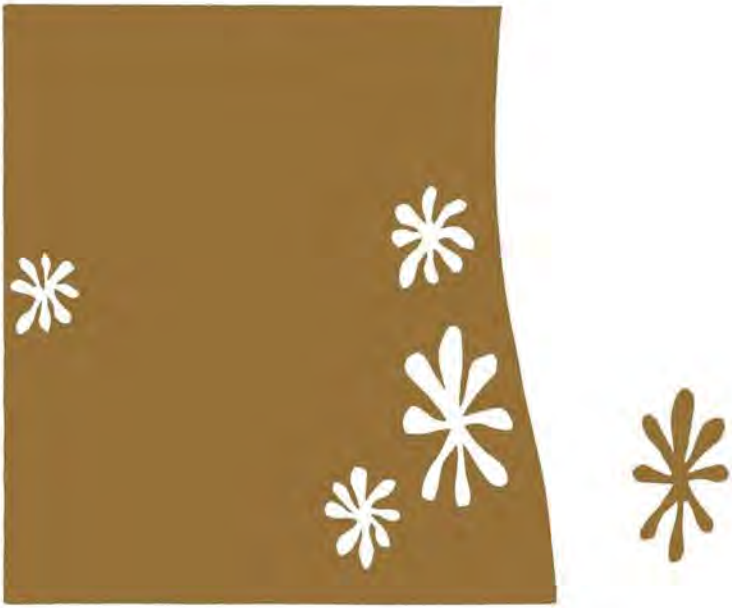
Pricing Decisions in Small Business

W. Warren Haynes
University of Kentucky



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PRICING DECISIONS IN SMALL BUSINESS

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FOREWORD

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Only a limited number of copies of this report have been printed. It is available for reference in any of the Small Business Administration offices throughout the United States or at many reference libraries. Copies of the report also may be purchased directly from the University of Kentucky Press, Lexington, Kentucky.

Summaries of this study are being printed and will be available in reasonable quantities. These summaries may be secured from SBA field offices or from the Small Business Administration, Washington 25, D. C.

The Small Business Administration assumes no responsibility for the accuracy of the data contained herein, nor does it necessarily endorse any opinions, conclusions, or recommendations which may be a part of this report.

JOHN E. HORNE
Administrator
Small Business Administration

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INTRODUCTION

ONE OF the central interests of businessmen and economists is the pricing of commodities and services. For the businessman, prices are one of the main determinants of profits and of success or failure. For the economist, prices are at the heart of the mechanism for allocating resources to various lines of production and a central influence on the distribution of income. Thus it is not surprising that a high proportion of the literature of business and economics is concerned with this subject.

In view of the large volume of material already published,[1] it is desirable to indicate the contribution made by

the present study. First, we are concerned with small businesses rather than large. Most of the literature on pricing (outside of agriculture) has concerned itself with large firms. This is true of the recent study of Kaplan, Dirlam, and Lanzillotti and of most of its predecessors. The outstanding collection of selected writings, edited by Backman in 1953,[2] contains considerable excellent material on large firms but none on small ones. Most studies dealing with industries consisting of many small firms treat them in the mass rather than individually, thus neglecting the decision-making process within the particular firm. The present study is primarily concerned with individual cases. Only after a thorough analysis of individual pricing decisions is a broader perspective undertaken.

This study differs from previous researches in that it has abandoned the questionnaire approach that has dominated pricing investigations in the past. It makes use, instead, of the case approach such as is used by Kaplan, Dirlam, and Lanzillotti in their volume and by a few other writers, though it has tried to achieve greater depth and flexibility in the interpretation of company statements on pricing than some case studies have demonstrated. Questionnaire studies generally suffer from a failure to develop in depth the

[1] The best survey of the literature up to 1955 is Richard B. Heflebower's "Full Costs, Cost Changes, and Prices," in *Business Concentration and Price Policy* [A Conference of the Universities—National Bureau Committee for Economic Research], National Bureau of Economic Research, Special Conference Series No. 5 (Princeton, N. J.: Princeton University Press, 1955), pp. 361-96. The outstanding works since that time are James S. Earley, "Marginal Policies of 'Excellently Managed' Companies," *American Economic Review*, XLVI (March, 1956), 44-70; James S. Earley, "Recent Developments in Cost Accounting and the 'Marginal Analysis,'" *Journal of Political Economy*, LXIII (June, 1955), 227-42; A. D. H. Kaplan, Joel B. Dirlam, and Robert F. Lanzillotti, *Pricing in Big Business* (Washington, D.C.: Brookings Institution, 1958); and Robert F. Lanzillotti, "Pricing Objectives in Large Companies," *American Economic Review*, XLVIII (Dec., 1958), 921-40.

[2] Jules Backman (ed.), *Price Practices and Price Policies: Selected Writings* (New York: Ronald Press, 1953).

reasons for pricing decisions; they tend to accept at face value the brief replies of the respondents. The case approach, based on an intensive interviewing of key officials, carries more promise of uncovering inconsistencies in official statements and of finding the deeper reasons for the final outcome.

This study, then, is concerned with decision-making processes, and thereby it brings to bear the point of view of organization theory as well as that of economic theory upon the establishment of prices. It focuses on the influences and pressures that have led to particular pricing outcomes, which involves close attention to the chains of reasoning of executives concerned with pricing. It considers the data—accounting or other—that are examined and analyzed by these executives. It also considers the theories, procedures, or rules of thumb which have been applied. In addition, it notes the internal organizational influences on the decisions —patterns of communication, of influence, of authority that help govern the final outcome. Wherever possible, it attempts to trace the sequence of events that has led to a particular outcome, from the initial awareness of a problem through consideration of competing alternatives to the final decision.

The reader may well ask whether this study is in the area of description or of prescription. Is it concerned mainly with describing the ways in which firms arrive at pricing decisions? Or does it attempt to supply advice on how such pricing *should be done*? A large volume of material on pricing, to which we shall refer from time to time, has been more concerned with prescription than description. Literally hundreds of pamphlets, bulletins, and textbooks specify how pricing should be done, but only a few examine how it actually is done. When description is attempted, it is frequently superficial. For example, dozens of mail questionnaires inquire into "How do you set your prices?" Such questions naturally draw forth short and uninformative answers. A typical answer is that "We price according to

what our competitors are charging," a reply that is open to many interpretations and one which usually turns out to be only a partial answer to the question.

This study stresses both description and prescription. It starts with the premise that no one can arrive at useful prescriptions simply by sitting at a desk and thinking the problem through. But at the same time it does not assume that what is done is necessarily best. By a direct confrontation of logic and theory on one side and actual practice on the other, we may help find the limits of the theory as well as some of the imperfections of actual practice. Some beautiful theoretical models, based on the most refined (and sometimes the most elaborate) deductive reasoning, may turn out to be only remotely relevant to actual practice because of the difficulties of obtaining the data or applying the mathematical processes required. On the other hand, some firms undoubtedly are losing opportunities for greater profits by mechanically applying rules of thumb or by following "hunches," without attention to the gains to be derived from more costly but possibly more productive procedures. The extent to which more refined models are relevant depends very much on the circumstances, precluding, therefore, simple prescriptions that can be applied indiscriminately by all.

In other words, this study brings together naive and sophisticated theoretical models and detailed descriptions of actual practice, in the hope that this confrontation will make a contribution to both the theory and the actual practice. In the chapters that follow we present conclusions that differ from previously published findings (mostly drawn from big business)—conclusions on the pervasiveness of full-cost pricing, on the use of accounting methods consistent with marginalism, on the stress on "target returns," and on the inattention to market forces. These conclusions should contribute to a fuller understanding of pricing decisions in small business, with emphasis placed both on the *relevant* and on the *possible*.

The building block from which this study is constructed is the individual case. An intensive examination of particular pricing decisions in particular firms precedes attempts at generalization—and helps account for a reluctance to reduce observations to simple generalizations. The premise underlying this approach is that we do not yet have sufficient knowledge of how particular firms go about setting prices. Case studies should extend our knowledge in this sphere and thus lead to generalizations more in conformity with actual practice.

At the very outset, structured approaches to interviewing were rejected. Mail questionnaires would have failed to develop in depth the complex influences and thought applied in setting prices. Structured interviews, with definite lists of set questions, would have limited the interviewers in determining just how each management solved its pricing problem. It was necessary to have complete freedom in directing the questioning to the particular situation. The interviewers did of course have lists of questions in mind, and usually had these jotted down on slips of paper, but these were used as suggestions for useful lines of thought that might be developed rather than rigid outlines of the direction the interviews might take. In no case was a single interview sufficient to answer all of the questions that arose. Between interviews, the research worker made lists of questions suggested by the first interview, so that more and more the questions were based on the particular situation. Frequently the research group met to discuss individual cases, and these discussions led to a series of followup questions for later interviews with the same company.

Obviously this type of information calls for considerable interpretation by the research workers. The facts do not speak for themselves. It is necessary to explain why the facts are as they are. It is necessary to relate the various facts to each other—to examine the extent to which organizational

arrangements, or internal patterns of influence, or personality conflicts, or lack of information, or custom, or the structure of the industry, or the risk of retaliation by competitors, or other factors have influenced the outcome. When the subject under study is the individual firm, it is highly unlikely that statistical techniques could bring out clearly the relative importance of these complex considerations. There is no way of avoiding personal judgments in the interpretation of the interview data. While we must admit that in some instances these judgments may be incomplete, or one-sided, or inaccurate, either because of the failure to obtain all the relevant facts or because of a misapplication of personal judgment, we believe that we have achieved a more realistic picture of these pricing decisions than could have been obtained in any other way.

One last comment on methodology is in order. While we have examined a total of 88 cases, we make no pretense of covering a "representative sample" of small businesses. Our aim is not to say that a certain percentage of small firms do this, while another percentage does something else. Our sample is biased to start out with by the mere fact that we have interviewed managers who have been willing (and in some cases eager) to cooperate. We have usually contacted managers in convenient locations, so that the region covered is not representative. We have been somewhat arbitrary in the selection of industries to be included. Frequently we have decided to select a firm similar to one we have already examined, to determine whether a similar pattern of decision making is followed. At other times we have decided that we have included enough firms of a particular type and have moved on to other industries.

Thus the basic unit of this study is the decision-making case. The sources of data are the interviews, supplemented by reports, worksheets, and minutes when these became available. The analysis consists largely of the subjective evaluations of the research workers. This approach brings out many features of pricing decisions in small business

which could not be examined and interpreted in any other way.

The investigation which comes closest to the present study in method is that of Bjarke Fog, a Danish economist, whose work appeared in English after the present project was virtually complete.[3] Fog also bases his study on interviews with the officials of firms; he focuses on the individual pricing case; and he makes subjective evaluations of his observations.

RELATION TO PRICE THEORY AND MANAGERIAL ECONOMICS

The approach of this study is quite different from the usual one in economic theory. Economic theory is generally highly deductive in character; the present study starts with actual cases. Economic theory is usually concerned with broad questions of resource allocation and income distribution and thus starts with large units (the economy as a whole and the industry); this study begins with the individual firm and with even a smaller unit, the individual pricing decision. Economic theory, quite correctly, aims at broad, simple generalizations wherever this is possible; this study is concerned with the complexity of detailed behavior and is less concerned with the broader generalizations which might be possible at a later date. When economic theory is concerned with prediction, it is usually prediction of some broad aggregate; and it may be quite correct to ignore considerable individual detail in making such predictions. But when the aim is a greater understanding of the decision-making process within the individual firm, the traditional methods of economic theory may no longer be appropriate.

This is not to state that orthodox theory has ignored facts about single firms. Alfred Marshall, who made a

[3] Bjarke Fog, *Industrial Pricing Policies: An Analysis of Pricing Policies of Danish Manufacturers* (Amsterdam: North-Holland Publishing Co., 1960). This is a translation of Fog's doctoral thesis, *Priskalkulation og prispolitik*, at the University of Copenhagen.

synthesis of the economic analysis of the late nineteenth and early twentieth centuries, showed considerable familiarity with industrial facts in all of his works and attempted to make his theories consistent with his observations. His successors have been concerned with developing theories that would account for certain facts that did not seem to fit into Marshallian or other orthodox molds. Thus the theories of oligopoly and monopolistic competition are attempts to generalize about behavior for industries that do not appear to fit into the purely competitive or the monopoly categories. But most of these developments were very little concerned with decision-making processes within individual firms.

We shall not make the claim that a close examination of the internal workings of single firms will necessarily lead to a reformulation of economic theory. It may well be that different methods must be developed for different purposes —and that the usual method of economic theory is quite well suited to dealing with the broader questions with which it is concerned. No doubt this theory will undergo revisions, and probably the study of individual firm behavior will contribute to those revisions, but it is doubtful that there will be a dramatic shift in the level of abstraction. After all, the aim of economic theory is not description of detailed behavior. Its aim is prediction of broad aggregates and the control that such prediction permits. Thus it is an open question whether or not case studies of pricing decisions can make a significant contribution to economic theory in its usual role.

When it comes to managerial economics, economics as applied to the understanding and improvement of individual firm behavior, the situation is quite different. Much of managerial economics, like broader price theory, is partly deductive in character. It is concerned with the logic of decision making. But managerial economics is of necessity concerned with the firm and with a comparison of actual behavior with a priori deductions. Many issues in managerial economics, particularly in the area of pricing, are unsettled.

It is not yet clear how appropriate marginal analysis is in actual pricing decisions, in view of the complexity of the actual pricing environment. Nor is it clear whether full-cost pricing, which appears to be widespread in practice, is a defensible approach in view of its apparent conflict with marginalist reasoning.

Thus, while the importance of this study to general price theory may be conjectural, we believe that our findings are important in the area of managerial economics. The study should help to resolve some controversies about the relevance of some pricing prescriptions; it may at the same time stimulate new lines of controversy, thus leading to further research. It should help small businessmen determine the extent to which economic reasoning can be helpful in their pricing decisions, providing suggestions about how the gap between theory and practice may be bridged.

PART I

2

SOME PRESCRIPTIVE VIEWS ON PRICING

AS A BACKGROUND for the case studies, it is desirable to survey some views of previous writers on prescriptions for pricing. Two chief theories of pricing appear in the literature: full-cost pricing and marginalism. Actually the distinctions between them are not so simple. Therefore this chapter concerns itself with defining the variety of viewpoints falling within these categories.

NAIVE FULL-COST PRICING

In this monograph the expression "full-cost pricing" means pricing at a level covering total costs, including overhead,

plus a *predetermined* markup. The expression "cost-plus pricing" is treated as a synonym. Neither phrase is used to cover cases in which *variable* markups are added to full costs, although this usage is sometimes found in the literature. The advocates of full-cost pricing write at varying levels of sophistication. Some recommend this method as though there were no reasonable alternative. Others are quite familiar with alternative views and particularly with marginalist reasoning, but favor full-cost pricing because of the difficulties of applying more flexible approaches.

Not much need be said about the naive statements. If one has not given much thought to the problem, he might very well conclude that the way to price is to measure cost and add a percentage to provide a "reasonable" profit. Unless a firm covers its costs and returns a profit, as is often stated, it is difficult to see how it can stay in business.

A great number of pamphlets and manuals advocate full-cost pricing without any evaluation of alternative approaches. Perhaps it is unfair to state that the authors are unaware of such alternatives, but quite frequently they do not provide any basis upon which the reader can evaluate them. Some of these publications do recognize the need to make "exceptions," but provide very little help in deciding when it is most desirable to make them. A letter from a national trade association, for example, deplores the lack of system in the pricing practices of its members. The association "recommends that pricing be established through more 'scientific' means. We have published a bulletin . . . in which we show the members . . . how to establish a fair and equitable price for their finished product. Essentially, all we are pointing out is that the selling price should be based upon the expenses plus a fair percentage for profit."[1] Perhaps there are reasons in the particular industry for such a policy, but the tone of the letter indicates that the leaders of the trade association believe that pricing based on something

[1] Letter from a trade association official to a member of the research team.

fairly definite such as costs is necessarily sound. The use of the expression "scientific" suggests a lack of awareness of the complexity of the pricing problem.

Even the firmest advocate of full costs recognizes certain difficulties in the application of the principle. There are questions concerning the definition of "cost" itself, of the allocation of overhead cost, of the use of "actual" cost versus "standard" cost, and so on. Some of these questions will arise in dealing with individual case studies later in this report, but it is sufficient for the present to let "full cost" represent a number of variations in cost measurement, all of which aim at estimating all of the costs: labor, materials, and overhead.

This approach usually provides for exceptions to the full-cost principle—markdowns on soiled and damaged goods, for example. But little insight is provided as to when such exceptions are appropriate and how much the price should be reduced.

It might be argued that we have set up a strawman in this discussion of naive full-cost pricing, for it would seem that anyone with any business experience would know there is more to pricing than this. It is our impression, however, that some businesses do apply the full-cost approach in a mechanical way; some of the literature suggests no ways of looking more deeply into the question. It should be made clear, on the other hand, that much of the full-cost literature is anything but naive. It is best to postpone discussion of this more sophisticated literature until marginalist approaches are examined, for this will highlight the issues involved.

NAIVE GOING-RATE RULES

While some writers advocate routine pricing on the basis of costs, others favor pricing at the "going rate." Some publications suggest that all there is to pricing is the determination of what one's competitors are charging. Sometimes this is suggested as only a first step in those situations where little

other information is to be had. For example, a bulletin on motor courts recommends that a new court should start with a survey of the "general rate structure for comparable rooms at other courts in the area,"[2] while admitting that these same rates may later turn out to be wrong. As with full-cost pricing, going-rate pricing is not necessarily superficial; situations exist in which it may be the rational approach. But the particular literature under review, such as the bulletin just quoted, does not go into the deeper reasons for such a policy; and thus it does not provide a manager with a conceptual framework to assist him in deciding what rules apply to his situation and what principles to use in setting up his price rates. Nor does it explain how prices ever get changed.

Full-cost pricing and going-rate pricing would appear to be at opposite extremes. One might expect that the former would be popular in cases in which full costs can be measured with some degree of accuracy (though with the conceptual difficulties that have already been mentioned) but demand is nebulous, while going-rate pricing would be usual when costs are difficult to measure. The conflict between the two procedures must not be overstated. One suspects, for example, that some trade associations favor full-cost pricing on the very grounds that it does narrow down flexibility and does help insure that the competitors will come up with similar prices or bids. Thus full-cost pricing becomes a means for estimating the going rate and insuring its maintenance.

MARGINALISM IN PRICING

When business economists began to apply concepts from economic theory to business problems, they quite naturally took over the marginalist mode of thought that had been

[2] Harry B. Love, *Establishing and Operating a Year-Round Motor Court*, U. S. Department of Commerce, Domestic Commerce Office, Industrial (Small Business) Series No. 50 (Washington: U. S. Government Printing Office, 1947).

developed and refined in the nineteenth and early twentieth centuries.[3] Marginalism would appear to provide a rational basis for decision making. It is therefore in opposition to mechanical rules, such as the full-cost or going-rate principles. What marginalism really amounts to in the realm of decisions is the comparison of the impact of decisions on revenue and on costs. Such reasoning is quite flexible. It does not require that attention be restricted to the effect of decisions on profits; it can take into account the extent to which the decision aids or detracts from other goals. When multiple goals are involved, however, a difficult problem of weighting them arises, so that in actual practice, attention is usually directed to profits (measurable costs and revenues), with correction for other considerations after the profit computations have been completed.

The general rule provided by marginalism should be stated clearly, for it is the basis for the following discussion. The rule states: If an alternative leads to a greater increase in revenue than in costs, it will increase profits and should be favored; if it leads to a greater reduction in costs than in revenue, it is likewise to be favored. As applied to pricing, the rule means that a decrease in prices is favorable if it so stimulates extra business that the revenue increases more than the added costs of the extra output; and an increase in prices is favorable if the loss of customers (normally there would be such a loss) is not enough to offset the increase in price and the reduction in costs.

Since "incremental cost" and "incremental revenue" are more familiar in business than "marginal cost" or "marginal revenue," those terms will be emphasized in the rest of this report. The difference between the two is that "marginal cost" and "marginal revenue" are concerned with infinitesimally small changes in costs and revenues,[4] resulting from

[3] The most influential volume in demonstrating applications of marginalism to business problems has been Joel Dean's *Managerial Economics* (New York: Prentice-Hall, 1951).

[4] A more precise definition in terms of the calculus may be found in advanced economics textbooks.

volume changes, while "incremental cost" and "incremental revenue" are finite changes resulting from decisions of many sorts not necessarily operating through volume changes. A rule in terms of these incremental concepts directs attention to whether or not incremental revenue exceeds incremental costs for a particular decision. For decisions that reduce costs, we shall sometimes use the expression "escapable costs" to denote those costs eliminated by the decision.

A list of the implications of marginalism should be useful in clarifying its meaning in business practice. These implications will be discussed under the following headings: orientation to the future, separation of fixed costs from variable costs, the concept of opportunity costs, demand considerations, market structure, and the incremental cost–incremental revenue rule.

Orientation to the future. All business decisions are concerned with the future rather than the past. The "dead hand of the past" should not dominate the decision-making process; the past is useful only to the extent that it helps us estimate the future. This view warns us that we must be cautious in the use of accounting data, for many of these data are based on the "original" costs incurred in the past and are thus not necessarily relevant in the determination of incremental costs in the future. This is particularly clear in the case of depreciation expenses, which in accounting involve the allocation over time of past expenditures rather than the estimate of some change in costs in the future.

Separation of fixed and variable costs. The separation of fixed and variable costs is not an idea limited to marginalism; in fact, it does not always meet the full needs of marginalism and may, if misapplied, lead to nonmarginalist results. Some costs do not fall neatly into either category; for example, electricity bills usually include both a fixed and variable charge. Some costs rise with output in a stairstep fashion; for example, an additional supervisor may be added

when output reaches a particular level, resulting in a one-step increase in costs. Some costs may be fixed or "sunk" for partial decreases in output, but may be "escapable" if the product line is abandoned; for example, machinery may be sold and the entire supervisory staff laid off if the whole line is discontinued, but this might not be possible with a one-half reduction of output. In fact, modern business economists and managerial accountants have placed great stress on the need to tailor the costs to the particular problem at hand, for a cost that may be fixed for one decision could be variable or partially variable for another. Thus the separation of fixed and variable costs, while useful as a first approximation, is an incomplete attempt at marginalism.

Opportunity costs. In economic theory and in managerial economics, it has long been recognized that the relevant cost concept in decision making is that of "opportunity costs." The cost of deciding to do one thing must involve a measurement of the sacrifice of alternatives. In fact, "cost" must basically mean "sacrifice"—recognition of this fact is likely to be clarifying in considering a particular problem. If, for example, a company has limited plant capacity, a reduction of price accompanied by an increase in sales may require the abandonment of other profitable lines. Some measure of the sacrifice of the profits derived from those lines is essential to the complete application of marginalist reasoning. Or to take another illustration, if the company has idle space and equipment which cannot be sold or leased to anyone else, there is no need to consider the depreciation on that space and equipment unless it can be used in producing other alternative lines. If it cannot, then the relevant depreciation or rental cost is zero; no sacrifice of opportunities results from the use of these facilities.

Demand considerations. Marginalist reasoning requires that both demand (revenue) and cost considerations be taken into account. If the demand is inelastic within a range

higher than present prices, the marginalist position would call for an increase in price. In fact, charging "what the market will bear" is completely consistent with marginalism. But a full application of marginalism would take into account the longrun effects of high prices: effects on goodwill, possible political repercussions and antitrust suits, as well as the entry of new competitors. Marginalism is not even inconsistent with the desire to maintain "fair" prices, if the owners and management of the firm derive satisfaction from acting according to a sense of responsibility to their customers and to the public in general. It is true that this interpretation of marginalism is so comprehensive as to make its use for prediction less useful than a narrower interpretation might be. But a description of actual behavior must include considerations of psychic income and goodwill.

Market structure. Marginalism implies that the firm considers the structure of its markets in reaching decisions on prices. Market structure is a major influence on demand elasticities. Economists have long recognized that in a market approaching perfect competition—one with a large number of firms and no differentiation of product—the demand facing the individual firm is highly elastic, so that the firm has little or no control over price. When a firm has a complete monopoly, it does not contend with the policies of other firms in setting prices; but it is only in rare circumstances that such complete monopoly control is possible. Most firms find themselves somewhere between the purely competitive and the monopolistic positions—in short, in the pattern of monopolistic competition or oligopoly.

By oligopoly we mean a market in which there are few enough sellers so that each will take into account in making its pricing decisions the possible reactions of its competitors. If there are, let us say, five sellers, each might recognize that any change in his price will be noticed by competitors, who may react. It is then necessary to predict the character of that reaction in arriving at the price decision. In other

words the firm cannot make an estimate of demand without considering the impact on others of changes in prices. A full application of marginalism will take such demand considerations into account. Thus in estimating the incremental cost and the incremental revenue from a decrease in price, it will be necessary to predict whether the competitors will also reduce price. The incremental revenue will be much less if the other sellers retaliate, and thus the reduction in price will be less profitable. Similarly, if the question is one of raising price, it is necessary to predict whether other firms will follow. If they do, the loss in revenue will be less than otherwise.

One of the major subjects of this study is the relevance in actual small business practice of such reasoning about oligopoly. The main point to be made here is that the question of whether a firm is in a competitive, an oligopolistic, or a monopolistic market is basic to the application of marginalism in its pricing.

The incremental cost–incremental revenue rules. In sum, then, marginalism in business decisions involves a comparison of the incremental revenue and the incremental cost resulting from that decision. If a decrease in price results in incremental revenue exceeding incremental cost, the decrease is profitable. An increase in price may result in a positive or negative incremental revenue—depending on the elasticity of demand. If the incremental revenue resulting from such an increase is positive, the decision is always profitable, for costs will drop as a result of the lower quantity of sales. If the incremental revenue is negative, that is, if a loss occurs because of a substantial drop in the number of customers, the question is whether the "escaped" costs exceed this loss in revenue.

To summarize, we shall use *IC* to represent incremental cost and *IR*, incremental revenue, when these are positive. We shall use *EC* to represent escapable costs and *DR* for decremental revenue.

For a decrease in price:	*For an increase in price:*
$IR > IC$ — profitable	$EC > DR$ — profitable
$IC > IR$ — unprofitable	$DR > EC$ — unprofitable

SOPHISTICATED FULL-COST PRICING

We *have* given our incremental rules such broad scope that they are little more than tautologies. We have defined the terms in such a way that the rules hold by definition. Since profits are the excess of revenues over costs, any decision that increases revenues more than costs must mathematically increase profits (or reduce losses). A critic might argue that we are playing with logic and not facing the needs of decision making.

The rules are so broad as to incorporate full-cost pricing whenever it does contribute to profitability. In some cases marginalism and the full-cost principle may be consistent. This would be true if any movement away from prices based on full cost would affect revenues and costs in such a way as to reduce profits. The question is: When does such a position exist? When will the routine application of a full-cost formula produce more profitable results than a more flexible groping for higher revenues or lower costs?

This question takes us back to oligopoly. In oligopoly, full-cost pricing may make sense in view of the uncertainty about competitors' reactions to price change. The penalties for raising or lowering price may be great; the firm may wish to avoid taking the chances of incurring such penalties. If it raises price and other firms do not follow, a substantial drop in volume of sales may occur. If it lowers price and other firms do follow, the whole industry may suffer from the price warfare that results. Full-cost pricing may provide a stability in competition that must be quite appealing to many firms. If costs do increase, each firm can anticipate that his rivals (who are probably encountering similar cost increases) will boost prices about the same time he does. This accounts for the fact (to be brought out in some of the

case studies) that some managers, not presently on a consistent full-cost basis, would like to see the whole industry move to such a system.

Other possible explanations of full-cost pricing, consistent with the idea that full cost is a rational approach to the problem,[5] are these:

1. Profit maximization may not be the objective for all firms. Some may believe that prices based on full costs are "fair," and this sense of fairness may override any desire to increase profits by manipulating prices. It is interesting that moral judgments are applied not only to price increases; some managers have a very low opinion of price cutters. The expression "cutthroat competition" was undoubtedly invented by businessmen with such views, and when price cuts are deliberately used to drive out competitors, there may be much to be said for this position.

2. Price changes in conformity with marginalist rules may be costly, especially because they require time and thought.

3. Much uncertainty about the shape of the demand curve—about the probable response to price change—may make it too risky to move away from full-cost basis for pricing.

4. The inclusion of overhead allocations in the basis for price may help assure that opportunity costs are recognized. In a firm with flexible production facilities, overhead allocations may serve as a crude estimate of alternatives.

Thus it is not at all clear that full-cost pricing is in conflict with profit maximization in every case. The case studies will point up the relevance of this approach in small business.

SOPHISTICATED GOING-RATE PRICING

A *similar* analysis is applicable to pricing according to what competitors are charging. In some situations this may be the

[5] The strongest argument for full-cost pricing appears in P. J. D. Wiles, *Price, Cost, and Output* (Oxford: Basil Blackwell, 1956), pp. 43 ff.

"safe" policy—one that will least involve the risk of retaliation. Many cases of pricing at the going rate are undoubtedly cases of price leadership. The rivals adopt the policy of charging what the price leader charges and of changing price only when he changes price. This does not necessarily mean that the same firm always acts as the leader or that there is an awareness of who is the leader. It does not always mean that the largest firm or the best known firm always leads in price revisions. Some studies of price leadership suggest that when a price change by one firm is confirmed by the dominant firms, the new price level is established. And there are cases in which a firm has increased prices, when the other firms were unwilling to do so, only to find that it could not maintain volume; such a condition has led to a return to the old price.

Thus in an oligopoly situation, pricing at the going rate is not so much a sign of competition as of the desire to avoid unpleasant price rivalry. And, in a case in which flexible pricing might run the risk of low prices and profits for the whole industry, it can hardly be argued that this policy is unwise. The case studies which follow develop other reasons firms may wish to follow the going rate. For one thing it may be cheaper, in both money and effort, to find out what is being charged by others than to reason about demand and costs.

Thus pricing on the basis of the prices of competition is not necessarily inconsistent with marginalism as interpreted broadly. It may instead be a simple, logical, safe method for avoiding the costs, worry, and strife that a more individualistic policy might involve.

CONCLUSIONS

The literature on pricing has concerned itself with many issues not discussed here. There are questions of price discrimination, delivered pricing, quantity discounts, price lining, resale price maintenance, and so on. Some writers distinguish between the pricing of new products and old

ones. And on new products they distinguish between situations in which a "skimming price" is appropriate and those in which it is profitable to "penetrate" the market with low prices. We have deliberately avoided these issues at this

A Classification of Approaches to Pricing

Approach	Description of the technique and comments
Mechanical:	
Naive Full-Cost Pricing	Mechanical measurement of costs with the addition of a customary profit margin (exceptions in special circumstances)
Naive Going-Rate Pricing	Mechanical imitation of the prices of competitors without any analysis of demand and cost considerations
Other Mechanical Pricing Formulas	Rules of thumb adopted by firms in a particular industry
Rational (Marginal):	
Full-Cost Pricing	Consistent with marginalism when the decision maker adopts this method because of uncertainties about competitors' reactions, about demand and cost, etc. Also may appeal to sense of fairness.
Going-Rate Pricing	Often a rational avoidance of price conflict. Usually known as price leadership. Ethical considerations also enter in.
Flexible Evaluations of Incremental Costs and Incremental Revenue Resulting from Price Change	Requires the estimation of demand and costs. Requires consideration of longrun as well as shortrun repercussions.

point, though some of them will appear in our analysis of particular cases. Our objective in this chapter has been to focus on fundamentals—and the most fundamental question in this study has to do with the opposition between rigid full-cost pricing and a more flexible marginalist approach.

It is necessary to become more precise about our system of classification. This chapter has placed in opposition the

full-cost and the marginalist positions. But we have defined marginalism broadly and flexibly to take into account long-run as well as shortrun effects of price change. Such a broad definition blurs the contrast with full-cost pricing, for a sophisticated full-cost policy may be consistent with marginalist principles when possible retaliation and the costs of flexibility are taken into account. Thus the dichotomy between marginalism and full-cost pricing is misleading. The real dichotomy lies between mechanical, unthinking pricing rules on one hand and rational approaches on the other. The table summarizes various subcategories of this general classification, with comments on each approach.[6]

This classification provides a framework for the analysis of the cases which follow. We are interested in determining the extent to which small business managers do in fact reason about their prices and do apply marginal analysis. While this study does not cover a representative sample, it does include a wide variety of industries and thus provides some insight into the kinds of practices that are followed, as well as into the reasons for these practices. But we wish to go beyond description and inquire into the possibility of improving the pricing policies of small businesses. Would it be profitable for some small firms to move from mechanical rules to more flexible policies? This type of question requires considerable judgment, but we shall not avoid making use of such judgment. By comparing the actual practices of a variety of firms we hope to reach some conclusions about the possibilities of improving the practices of some of them.

[6] This classification is closely related to a distinction made by Earley, in *Amer. Econ. Rev.*, XLIV, 44-70, between those companies that do and do not follow marginalist approaches. But Earley is not exclusively concerned with pricing, and he does not consider the possibility that marginalism and full-cost pricing may in some cases be perfectly consistent. He does not consider going-rate pricing at all.

3

COST AND DEMAND IN SMALL BUSINESS PRICING: THE CASE STUDIES

IT IS NOW time to turn to the findings of the present research project. This study covers 88 individual companies, with from one or two employees to more than 200. They comprise a great variety of industries, but may be classified as follows:

Retailers	26
Wholesalers	6
Services	21
Combined Retail and Service Firms	2
Manufacturers	28
Garden or Landscape Nurseries	5

The main issue in this chapter and the next is whether these companies follow the precepts of marginalism in pricing or instead follow mechanical formulas, such as full-cost pricing.[1]

The detailed case discussions appear in Part II, which the reader may wish to examine before reading further. Since the case writeups involve considerable subjective analysis the reader should determine for himself the degree of his confidence in the judgments and interpretations that have been applied. This chapter and those to follow include short illustrative extracts from the cases, with references to Part II where necessary.

SOME GENERAL CONCLUSIONS FROM THE CASE STUDIES

The first striking point is that few of the firms are producers of a single product. The manufacturers produce a variety of goods selling in different markets. The retailers provide a variety of retailing services. The service outlets also perform a variety of tasks. The cases that come closest to single product units include the billboard company, which maintains standard-size panels (the fact that these are scattered geographically does not seem to have an impact on decision making), and the theater (which does, however, have a differentiated clientele that is important in pricing decisions). In view of the difficulty of finding clearcut cases of single-product firms, it is safe to conclude that multiproduct firms are overwhelmingly predominant in this study. This means that the usual assumption in economic theory of a single homogeneous product requires modification before the theory can be related to these cases.

This chapter is concerned with the relative importance of cost and demand factors in pricing. The major conclusions from the 88 cases are:

1. Most of the companies do *not* adhere strictly to a

[1] We postpone for the moment a discussion of the possibility that in some cases full-cost pricing and marginalism may be consistent.

full-cost approach to pricing.[2] They do not confine themselves to figuring up costs and then adding a predetermined margin. They show more flexibility than such a formula would allow—a flexibility over time to changing conditions and a flexibility at a given moment of time to different conditions in different segments of the market.[3]

2. An important minority of the companies do, however, follow fairly rigid patterns in pricing, with emphasis on cost factors and deemphasis of demand factors. These cases require close examination to determine whether these rigid practices seem reasonable under the circumstances.

3. Where full costs are used, their major impact is usually not in the form of a rigid base for a mechanical formula. It is rather in providing a resistance to downward price flexibility, not an inflexible point at which price will be set, but a floor below which it will not be allowed to fall. Full-cost formulas do provide a convenient reference point in pricing. When a manager is too busy to do otherwise, he may be willing to accept a mechanical solution to his decision-making problem. When the competitive pressure becomes greater, he may feel compelled to break away from this formula. The result is a degree of flexibility, but flexibility with restraint.

4. Many of the cases (especially those in retailing and wholesaling) demonstrate that where there are markups, they are not always based on estimates of full cost. Instead, they are often based on wholesale price or manufacturer's price

[2] It is desirable to repeat what is meant by the expression "full-cost pricing." Much of the confusion in the literature arises from a lack of clarity in definition. We define it to mean a rigid system of adding a predetermined markup to the total of labor, materials, and overhead costs to arrive at price. We therefore would not include in full-cost pricing a system that starts with full costs but adds a markup varying according to market conditions. Some of the literature uses the term to refer to any system built upon full costs, but this broader definition blurs the issues. In short, the mere use of full costs does not imply full-cost pricing.

[3] The expression "flexibility" is discussed more fully in a later section of this chapter.

with little or no attempt to allocate the fixed costs or even the variable costs other than wholesale costs. This is what Heflebower calls "gross margin pricing."[4]

5. The markups used by a single firm are usually not uniform for all products. Important differences in markups from one line to another are made, usually with some attempt (at least subjectively) to relate them to cost differentials or, more importantly, to differences in demand.

6. A few of the companies escape almost completely from pricing decisions by following some external guides on prices. In some cases this amounts to following the lead of larger firms in the industry. In other cases it consists of following the suggestions of manufacturers or wholesalers. (On prepriced or fair trade items this pattern is especially strong.) In still other cases the practice is one of simple imitation (which is very much like price "followership" except that the firm being imitated may not be a competitor).

7. In a substantial minority of the cases the markup concept is not mentioned and, in fact, appears to be irrelevant because of the nebulous character of the costs. The firms do not mark up on costs unless they are confident that some "objective" estimates of cost are available.

8. A few of the cases illustrate a trial-and-error process of pricing which apparently approaches the optimum position suggested by marginalist economic theory. While clear-cut cases of this are few, there is no doubt that many other firms do in fact base an important part of their pricing decisions on past experience of a trial-and-error character.

FULL-COST PRICING WITH MODIFICATIONS

A *strict* adherence to the full-cost principle is the exception. Very few of the firms confine themselves to an estimation of average costs and simply add a rigid predetermined margin. The great majority devote considerable attention to the prices of competitors and other pressures from the

[4] Heflebower, p. 367.

demand side. Hence this study questions a recent conclusion which contends that those who know their costs (or think they know them) base their prices on them if they can.[5] Most of our cases do not support this conclusion if it implies that pricing is completely cost oriented. Many of the businessmen interviewed spoke as though they priced on cost, but a closer questioning revealed that their actual practice was much more complex.

It is true that many firms do estimate their full costs and that they do take these into account in their pricing. But this is far from saying that all of them automatically apply rigid predetermined markups to these costs. In fact, most of them take these costs as the starting point in pricing and make adjustments according to the circumstances. A few case excerpts will illustrate this point.

Contractor A estimates the full cost of producing a house, but he modifies the price to meet market conditions. Even his concept of cost reflects variable estimates of the opportunity costs of his time. His time is less valuable in the winter, when business is slack, than at other seasons; he adjusts his estimates of cost accordingly. He also shades price on a cash sale of a house, recognizing the avoidance of a risk as compared with sales involving complicated financing. Thus the stress on full cost does not mean inattention to demand.

Printing Company A also pays considerable attention to full-cost estimates. While the management insists that prices *should* be kept on a full-cost basis, actual practice is more flexible. The managers are critical of "rate cutters," who, they claim, are responsible for the low industry profits, but they themselves show some willingness to adjust to market conditions when the necessity arises.

[5] Wiles, p. 22. Similarly, Spencer and Siegelman conclude that the "most widely used method of pricing employed by business firms is known as cost-plus pricing." See Milton H. Spencer and Louis Siegelman, *Managerial Economics* (Homewood, Ill.: Richard D. Irwin, 1959), p. 292. They mean by cost-plus pricing the same thing as full-cost pricing in this study. But their conclusion is opposed to the one here. Perhaps the difference is that they are concerned with large firms, where routinized full-cost formulas simplify the multifold decision-making processes, while this study is concerned with small firms.

Furniture Company D starts with a cost estimate, including an allocation of indirect labor and factory overhead. But the management modifies the target return to meet market conditions.

These cases demonstrate that an initial reference to full cost does not mean that demand is ignored in pricing. We could present still additional illustrations of how firms modify their prices to meet market conditions. In fact, despite the unrepresentative nature of the sample in this study, the following generalization seems warranted: *Most small businesses that claim to base prices on full costs do in fact take demand into account in their actual pricing.*

This generalization reflects the fact that managements do not give up all their flexibility when profitable opportunities appear on the horizon. If the rewards for breaking away from a pat formula are great enough, or if the penalties for refusing to break away are great enough, most firms will modify the prices based on costs.

CASES OF THE RIGID ADHERENCE TO FULL COSTS

We shall now consider that minority of cases in which there is a strict adherence to full-cost formulas in pricing. These are the extreme full-cost cases.

Furniture Company A adds a 90 percent markup to direct labor and materials. Even though most sales are on a bidding basis, the management adheres rigidly to the markup, taking no advantage of favorable markets and avoiding lower prices to tap new markets. The firm could sell a greater volume at present prices; in a sense a queue has formed for the company's products. The company rations its capacity by simply refusing to bid on certain jobs, thus cutting itself off from part of its potential market.

Is this behavior reasonable? Several reasons favor the practice. The firm can always expect to have a cushion of business to fall back on if the regular business declines. It can and does bid on government contracts (still at a 90

percent markup) when there is excess capacity in its plant. This provides some security for profits and employment. Furthermore, the company would find it necessary to expand capacity if it tried to supply all potential customers. There is a risk that this added capacity would not always be needed. In view of the uncertainty about the future, can we really say that this refusal to adjust capacity to the market is unreasonable? It may instead be the best way of assuring longrun profits. Or perhaps the management prefers a certain flow of profits to a less certain flow. One cannot say that such a pattern of behavior is irrational.

Thus the full-cost policy of this furniture company *may* be interpreted as a perfectly reasonable attempt to put longrun profits ahead of shortrun exploitation of the market. Perhaps it reflects an attempt to maximize the longrun utility of the owner's income, taking into account that a gamble on higher shortrun profits involves chances for both gains and losses, and that the expected utility of the gains may be less than the expected utility of the losses. This suggests a conclusion to be developed later: that the personality and objectives of the owner-manager are important. A less cautious type of manager—one more prone to take risks—might well break away from the full-cost policy to increase his shortrun profits, in the hope that this would also lead to higher longrun profits.

It should be clear that, even in this most extreme of our full-cost cases, demand is indirectly an important influence. The fact of the excess demand at given prices is the very condition permitting the mechanical reference to cost. If demand were much reduced, it seems certain that this firm would be forced to more flexible pricing policies, since the idle capacity would create great temptations to reduce price.

The two feed stores included in this study are also rather strict followers of definite markups (in this case absolute rather than percentage markups) on cost. The markup is on the wholesale cost rather than manufacturing costs; these cases might better fall into the section on "gross margin

pricing" which comes later. But the point is that this cost-plus price policy is possible because the market in general follows the same pattern; the retail prices generally are above the wholesale cost by the amount of the margin.

It is important to note that this rigidity in markup can mean considerable flexibility in the price itself. This is certainly true for these feed stores, for the base for their markups is constantly changing. Thus one should not accept too freely the idea that cost-plus pricing and price rigidity necessarily go together.

The printing cases provide added illustrations of this policy of extreme full-cost pricing. Printing Companies C and D claim to be strong adherents of full costs through good times and bad. The manager of Printing Company C even insists that he would recognize higher unit fixed costs when volume is down. Some costing systems in the printing industry have the effect of showing higher costs at lower volumes. The industry does not follow the practice of estimating standard costs at "normal" percentages of capacity which is common in the steel and automobile industries. If the full-cost theory were followed strictly, this would mean higher prices in bad times than in good. This would not appear to be a feasible policy. Printing Company C probably gets around this by varying its markup. But it is strange that such companies use cost estimates which move countercyclically. One suspects that costs are less important in their pricing than they believe.

FULL COSTS AS RESISTANCE POINTS OR REFERENCE POINTS

The argument so far has been (1) that full-cost pricing in the small businesses examined in this study (and presumably in small business in general) is less prevalent than shown in some studies of big business, and (2) that most of the companies starting out with cost in pricing do show some adaptation to market conditions. The evidence indicates

that the firms usually do take both demand and cost into account and do often move away from full costs when it seems profitable to do so.

Does this mean that we should ignore full costs as an influence on prices? Not at all. It is clear that in a substantial proportion of our cases there are references to full costs in pricing that, at the minimum, offer some resistance to full flexibility. This conclusion is illustrated in the following case extracts.

The Laundry Firm included in the study shows some flexibility in its markups on full cost. But the management insists on full cost before the markup as a floor below which it will not go. The result has been a loss of some offseason business that would have added more revenue than costs.

Printing Company A also resists lowering price below full cost. The management believes that cutting price depresses the market and reduces industry profits and that it damages customer goodwill. Furthermore, there is a danger that jobs taken below cost will interfere with the production of more profitable work, since it is very difficult to time jobs exactly so as to use up idle capacity.

The Air-Conditioning Contractor refused to go below full cost on an important contract that would have added profits by making use of capacity. The management is willing to vary the profit markup and even to adjust salaries, but plans to continue using full cost as a floor even while it recognizes that it sometimes loses opportunities for added profits as a result.

Not many other cases illustrate full costs as resistance points in pricing so clearly as these three. But it seems reasonable to suppose that most of the other companies that compute full costs are influenced by these figures. They use these cost estimates more often as "reference points" than "resistance points"; the result is reduced price flexibility both upward and downward. Estimates of full costs are "information." They may not seem always to be the most relevant kind of information. But in business situations in which information is scarce and the shapes of the demand and

cost functions are uncertain, it seems quite reasonable that management should be influenced by the figures that do exist. Thus full costs take on an importance not indicated by pure economic theory. They provide "reference points" that help management reach decisions rapidly when a more complete analysis might mean costly delay. They do not require a rigid, unthinking application; our cases suggest that they are only one element entering into pricing decisions of most of the small firms that use them.

MARKUPS ON WHOLESALE COST: "GROSS MARGIN PRICING"

The retail firms covered by this study refer without exception to wholesale cost rather than full costs in their pricing. They add markups sometimes expressed as percentages of wholesale cost and sometimes as percentages of retail price. It is true that these markups reflect costs as well as demand influences, but the point is that accounting estimates of these costs above wholesale price usually do not enter into the pricing decisions.[6] The accounting for such costs is done on a wide basis—usually storewide—with no allocation to particular items. Therefore, any reflection of the "costs" of particular items involves considerable managerial judgment of a subjective nature.

The markups on wholesale cost, like those on full cost, are variable. No stores in our sample use the same markup percentage on every line of goods. There are differences, however, among the pricing practices of these stores. The most important differences are these:

1. The extent to which the analysis for pricing is internal (within the firm). Some of the stores do all their own pricing; at the other extreme, some simply follow the suggested prices (including "fair trade" prices) of manufacturers or wholesalers.

[6] The departmentalized college store is an exception; its management does base margins on allocated overhead costs.

2. The degree of flexibility in price over time. Some stores change prices frequently; others, at the opposite extreme, seldom run "sales" or mark down prices. Those stores selling highly seasonal goods and fashion goods are generally more likely to mark down than others.

The first example is a case of low flexibility in pricing.

Gift Shop A follows suggested prices on some items. It classifies the remaining items as "competitive," with a 50 percent markup on wholesale, and "other," with a 100 percent markup on wholesale. The markups are not a result of internal management analysis but rather of custom, imitation, or advice from wholesalers. The manager does not change markups; she avoids special sales, though she occasionally "gives a price" on an item that has been on the shelves a long time.

The owner-manager of this gift shop determines the inflexible price policy. She is not the type to experiment with prices. She would object on ethical grounds to exploitation of demand differentials; she also believes this would be bad business. The fact that her successors in the business (who purchased it from her) have adopted more flexible price policies, with special sales and widespread markdowns, suggests that personal goals and traits are important influences on pricing.

There is a continuum from low to high flexibility in the remaining retailing cases. Some stores restrict markdowns to annual or semiannual sales, refusing to modify price at any other time. Some experiment continually with price policy. The four department stores and five men's clothing stores covered in Part II illustrate such differences in price flexibility. These cases suggest a hypothesis that deserves further study: *Stores that sell to low income or medium income customers appear to give more attention to price policy and are more flexible in pricing than those that sell to the wealthy.* This hypothesis seems reasonable. The stores supplying wealthy customers have probably more to gain from nonprice considerations, such as service, store appearance, and atmosphere. In fact, they gain from the

creation of a "store image" which deemphasizes price competition and assumes that the customer is above petty competitive comparisons. And they probably face less severe competition from their rivals. Thus price policy seems to depend in part on the class of clientele to which the store is appealing.

VARYING MARKUPS BY CUSTOMERS AND PRODUCT LINES

The great majority of the companies using markups in pricing vary those markups from one product to another. This practice may be called "cross-sectional flexibility," since it reflects a willingness of management to adapt pricing to the conditions facing the particular commodity. The practice is also referred to as "individualization" of pricing. The detailed case discussions in Part II contain sections on variable markups including discussions of the adaptation of markups to different segments of the market. Part of these variations are in the form of price discrimination—the exploitation of differentials in the individual willingness and ability to pay for the product. Part consist of adapting the markups on product lines to competitive conditions. Generally high turnover items carry low markups; this fact reflects both the lower costs of stocking those goods and the greater competition and the relatively high elasticity of demand.

Sometimes the markup differentials are based on custom or the suggestions of outside parties rather than an internal analysis. But these external guides in turn appear to be based on rough evaluations of market forces. The internally determined markups even more clearly reflect an evaluation of what is possible in terms of demand and competition. This suggests an important generalization: *The small businesses using markups in pricing at least partially adapt those markups to market forces, or they follow custom or external*

suggestions that take those forces into account. No doubt some of the businesses are more successful than others in doing this; the methods used in this study could hardly measure the extent of such success. But the study clearly indicates that the managers of these small businesses are not naive followers of a policy of a single markup percentage on cost.

PRICING WITHOUT MARKUPS

It would be a mistake to conclude that pricing always involves some reference to cost estimates. None of the nursery companies gives much attention to costs of individual products. This does not mean that such companies ignore costs in pricing; some of the managers claim their prices are based on cost. But what they mean is vague "feelings" about cost. The only cost information available in these companies is for the most part to be found on the income statements for the firm as a whole. These statements tell the managers whether satisfactory profits above costs are made. The statements do not provide information about the costs of individual items, on which markups are possible. How do nurseries price their products? The process is difficult to describe. But in the five cases in this study, considerable stress is placed on competition and the prices people are willing to pay, as well as on the level of profits.

A quite different case is the radio and television repair shop. The owner charges a standard price on each service call and each bench job without regard to the time put in on the job. Obviously this practice precludes the use of a markup on each job.

Such cases suggest another hypothesis: *When costs are nebulous (when it is difficult to determine either the full cost or the wholesale cost of an item) markups are not used in pricing.* The revenue and cost figures on the income statements serve a homeostatic function of indicating *overall*

whether performance is satisfactory.[7] If it is not, the result may be price changes, but the accounts do not indicate which items will be repriced or how much these revisions should be.

TRIAL AND ERROR AND OTHER DEMAND INDICATORS

Most firms are uncertain about the nature of their cost and demand functions. How is it possible for them to apply reason to pricing, when the very information that is applicable is highly uncertain? This is not so difficult a problem as it may seem at first. Trial and error may help a firm estimate which prices are more profitable or less and thus make the direct measurement of cost and revenue functions unnecessary. The billboard case illustrates this quite forcefully.

The Billboard Company is aggressive in raising rates to the level the traffic will bear. The company seeks information on what other firms are charging. More important, it experiments with pricing, finding out whether higher rates actually lead to lower volume. There is little doubt that this firm is increasing profits by this type of price manipulation.

Few of our cases indicate quite so clearly the successful application of trial and error in pricing. It is reasonable to suppose, however, that a high proportion of the companies use past experience with higher and lower prices as a guide to future practice.

It is quite clear that no company covered by this study uses refined techniques of market research or psychological analysis. There is no evidence of a single locally financed statistical study in the whole sample. No manager attempted to draw a demand curve of the sort popular in economics

[7] The analogy with a homeostat, which will hunt for a new equilibrium when it is disturbed, seems useful in interpreting much business behavior. Many managers are motivated by their income statements to make decisions because of their dissatisfaction with overall income.

textbooks. But the majority of the firms did recognize demand forces. Where do they get information on those forces?

1. First, the trial-and-error process just discussed is a source of information. Small firms do not usually keep records of this experience; they do not apply systematic analysis. But they do learn subjectively from the past what happens when prices of different items are increased or decreased. More systematic record keeping might help improve performance, for it is easy to draw the wrong conclusions from experience that is not evaluated carefully.

2. In particular, information on "volume" is mentioned by many managers as an influence on pricing. This information is readily available. In a small business even casual observation tells something about the volume of sales. And some of these companies do maintain systematic records item by item on the quantities sold. When the volume of an item falls off, the management may take this as an indicator that lower prices are needed as an offset. This kind of volume information does not indicate the elasticity of demand and thus does not indicate whether a price reduction would be profitable. But the volume may indicate whether or not the demand has shifted. In short, volume information provides signals that may suggest the need for decision, but it is not very helpful in predicting the results of such decision.

3. Information on the prices charged by others is useful in evaluating competition. A few of the companies make systematic surveys of the prices of others. (The college department store is an illustration.) Since most of the companies are differentiated to some extent from their competitors, they cannot assume that the demand is perfectly elastic at the prices charged by competitors. They can set their prices in relation to those of competitors, on the basis of subjective evaluations of the importance of price differences. Again they usually rely on past experience.

4. Another demand indicator is the time it takes to sell a product. This is closely related to volume, but in some

cases (such as the building of houses) production is discontinuous over time and the manager thinks in terms of the time the product is unsold. The manager knows this for his own products. He can also estimate the time it takes competitors to sell theirs. In the case of houses, he sees want ads and "for sale" signs that indicate how the market is going. He also can get information on the prices being charged. The time it takes him to sell his own houses not only tells him something about the market, but it also exerts a financial pressure that may force him to reduce price.

5. Some demand information comes completely from the outside and has nothing to do with the firm's own experience. For example, the bowling alley made a thorough survey, not of competitors (it is a monopoly), but of the experience of other firms in similar localities. This survey provided highly informative data on what prices were acceptable to customers. Such information is also available from outside data-collecting organizations. The same bowling alley profited from a national survey of rates and volume made by an accounting firm. Wholesalers and manufacturers, trade journals and trade associations, also constitute sources of demand information. No doubt this information from external sources varies widely in reliability and relevance, and no doubt some managers misjudge its importance to their own operations.

A NOTE ON FLEXIBILITY, ADAPTABILITY, AND MECHANICAL DECISION RULES

The discussion so far has avoided a terminological problem that deserves attention. We can speak of pricing decisions as flexible, as adaptable to market conditions, as imaginative, or as nonmechanical. These terms are not synonymous; each applies to a somewhat different aspect.

1. The first aspect is *flexibility*. It has to do with the extent of *change*, of *price differences*. It should be possible to measure flexibility on an objective scale, according to

whether change is frequent and large and whether differences in markups from product to product are numerous and significant. Difficulties occur in determining whether a firm's practices are flexible or not. In fact, practices that seem flexible in one industry may appear rigid in another. Unfortunately, flexibility itself involves several dimensions. There is *flexibility over time:* the extent of changes from period to period. There is also *cross-sectional flexibility:* the extent to which the firm uses different rules for different segments of its business. To make the matter even more complicated, there may be complete rigidity in the pricing formula resulting in high flexibility in the prices themselves (as in the feed store cases already discussed). Flexible prices and flexible pricing are not the same thing. Another complication is that "price lining," which on the surface may seem a rigid conformity to preset prices, may actually involve a flexible variation of qualities fitted into the particular price lines.

2. The second aspect is *adaptability.* This measures the extent to which the prices conform to the conditions of the market and to the requirements for maximizing the firm's objectives. There is a reasonable presumption that a firm with *flexible* prices is usually adapting to a changing environment; much of the discussion in this and the next chapter is based on such a presumption. But there are important exceptions, which we shall discuss, in which a rigid pricing pattern may be a sound adaptation to the market. For example, in oligopoly, flexibility may set off a chain of undesired reactions. Also, when there are hundreds of pricing decisions and the cost of individual analyses is too high to justify constant revisions, flexibility may be too expensive in terms of managerial and clerical time.

3. The third aspect is the extent to which pricing is *mechanical* or *programed.* This measures the extent to which pricing is done by formula rather than on an *ad hoc* basis. The presumption is that *nonmechanical pricing* will be both more flexible and more adaptable; in many cases this pre-

sumption seems reasonable. Imaginative pricing would appear to require considerable judgment that cannot be fitted into mechanical rules and that requires flexibility and adaptation to changing conditions. But again the issue is complex. A mechanical markup on a changing wholesale cost may mean high flexibility over time as wholesale price quotations vary. Mechanical rules permit a programed delegation of pricing decisions and savings of management time that may mean a profitable adaptation to the circumstances.

CONCLUSIONS

This chapter does not support those previous surveys of pricing which suggest that a mechanical, cost-oriented approach to pricing prevails in business. A close examination of the cases in this study indicates considerable flexibility in pricing, with a great deal of adaptation to demand. The mechanical pricers are the exception rather than the rule. It would appear that small businesses are flexible in pricing both because of external forces (competitive pressures) and internal organizational simplicity (few decision makers). Thus this flexibility is a result both of the weakness of the small firm in the market place and its strength in internal communication.

This chapter has touched on the issue of marginalism but has not faced up to it squarely. Chapter 4 will deal more directly with the question of whether these small businessmen do behave the way marginalist theory describes them and whether they strive for maximum profits.

4

MARGINALISM AND PROFIT MAXIMIZATION IN SMALL BUSINESS PRICING

THIS CHAPTER deals with two central, interrelated questions about pricing in small business: (1) Do the firms follow the precepts of marginalism in their pricing? (2) Do they attempt to maximize profits?

Previous studies are in conflict on these issues. Some note management's ignorance of both the marginalist theory and of the kinds of information required by that theory. Other studies are impressed by the attention management (in some large firms, at least) gives to cost differentiation and market forces as evidence of marginalist tendencies. Some writers emphasize that profits are only one of a set of

multiple objectives, while others are impressed by the persistent force of the profit motive.

An examination of the cases supports an intermediate position on these questions. Our study indicates little direct measurement of marginal or incremental variables but reveals trial and error and other approaches that may be at least partially consistent with marginalism. The stress on profits appears to vary from company to company, partly because of differences in the motivation of management and partly because of competitive pressures. There is enough variety in the cases to preclude dogmatic generalizations.

DIRECT MEASUREMENTS OF MARGINAL VALUES

Some critics of economic theory have argued that businessmen cannot use marginal analysis unless they can measure their revenue and cost functions accurately. Do the companies in this study attempt such measurements? There is extremely little evidence that they do. In fact, there are few cases in which serious attention is given even to the most elementary separation of fixed and variable costs. The following cases are among the few illustrating any systematic attention to the fixed-variable cost dichotomy.

The Bowling Alley made use of break-even charts which required a separation of fixed and variable costs. Management developed the break-even analysis in deciding whether to enter the bowling business. The charts assumed that costs were linear, with variable costs directly proportional to volume. They recognized only one semivariable cost; it was split between the fixed and variable categories. The breakdown had little influence on pricing, which was more concerned with what the market would bear.

Printing Company A also is aware of the distinction between fixed and variable costs and of the fact that labor costs are fixed for short period fluctuations in volume. The low level of incremental (variable) costs offers a temptation to reduce prices when capacity is idle, but management tries (not always successfully) to resist this temptation.

Perhaps the recognition of the low level of incremental costs had some influence on pricing in this printing company, for the firm did depart from its full-cost formula at times. But cost estimates were among many influences on pricing, and they took a secondary role.

The next case illustrates estimates of "direct" costs, which again might function somewhat as incremental costs. The discussion shows, however, that they have even less to do with marginalist reasoning and with actual pricing than the variable costs estimated in the preceding cases.

Department Store A uses an accounting system which provides data on "direct" costs in individual departments. In manufacturing, "direct costing" has to do with finding variable costs; but in the system of retail accounting used by this store, the "direct" costs include costs that are fixed as well as variable. The cost breakdown is of no use in estimating changes in total costs resulting from decision making. Furthermore, it plays no part in the company's pricing.

Other case citations are unnecessary. There are other firms (but only a few) giving formal attention to fixed, variable, or similar cost categories, but no cases suggesting that this cost analysis had much influence on pricing. At the same time, most of the managements must have been generally aware, in a subjective way, that their full costs were not always the most relevant factors in pricing; otherwise there would not have been so much flexibility in pricing as we have shown. The retail stores, for example, were certainly aware that most of their costs above wholesale were fixed. The markdowns on special sales certainly reflected a rough kind of incremental reasoning, even if they did not involve pencil-and-paper estimates.

The discussion so far has emphasized cost estimates. The conclusions would apply even more forcefully on the demand side. No firm in the sample used any quantitative estimates of "marginal revenue" or "elasticity of demand." If marginalism requires quantitative estimates of incremental

values, it must be rare in small business. But this is not what marginalism requires if it is defined broadly.

Returning to formal cost breakdowns, a further comment on their relation to marginalism is in order. We shall show that marginalism does not necessarily depend on such breakdowns. But how about the reverse relationship: Do breakdowns into fixed, variable, and similar categories imply marginalism? Earley's study of large firms might lead one to such a conclusion, for Earley places much stress on the segmentation and differentiation of costs as evidence of marginalism.[1] The cases just cited would raise doubts about such a conclusion, for our companies made little, if any, use of the cost breakdowns in decision making. Earley presents evidence that his firms did use the breakdowns, in both pricing and other types of decisions. There is a clear difference between the cases in his study and in ours; this may indicate an area in which small firms have lagged behind the "excellently managed" large firms. It may instead mean that small firms do not require such breakdowns.

SUBJECTIVE MARGINALISM

The discussion so far might be taken to indicate the irrelevance of marginalism as a description of small business behavior. Such is far from the case. As Machlup has stated, "We should understand that the construction of a pattern for the analytical description of a process is not the same thing as the actual process in everyday life; and we should not expect to find in everyday life the definite numerical estimates that are part of the scientific pattern."[2]

Did the firms in this study manage by subjective estimate and trial and error to approach the position indicated by marginal analysis? This is not a question which leads to exact conclusions. Even in a single case it would be difficult

[1] Earley, *Amer. Econ. Rev.*, XLVI, 44-70.

[2] Fritz Machlup, "Marginal Analysis and Empirical Research," *American Economic Review*, XXXVI (Sept., 1946), 547.

to "prove" or "disprove" that the manager behaved in a manner consistent with economic theory.

There is certainly evidence of practices in many of our firms that point in the direction of marginalism:

1. The approach by trial and error to prices that led to higher profits.
2. The widespread practice of varying markups on different lines of goods.
3. The flexibility of markups over time in some of the firms, with apparent adjustment to changing market conditions.
4. The ability of managers with relatively inflexible policies to justify these policies in terms of the undesirable impact on revenues (and sometimes costs) of alternative practices.
5. The probability that imitative pricing and the rigid adherence to suggested prices permits firms to apply prices which outsiders have learned from experience are consistent with demand conditions.

TWO STEPS IN FULL-COST PRICING: A PARTIAL RECONCILIATION WITH MARGINALISM

Is full-cost pricing as practiced by some of our small firms inconsistent with marginalism? This section will argue that it may not be. It is important to recognize that there are two steps in the application of a full-cost formula: (1) the choice of the formula itself, including determination of the markups; and (2) the routine use of the formulas in setting individual prices.

Our cases suggest that market forces and tradition play a key role in the first step. The firms do not select the formulas at random. They choose markups that are viable. A furniture company that charges a 6 percent profit markup on some lines and 15 percent on others has probably found that competition makes such a pattern desirable. If the companies aim at "target returns" (the interviewees some-

times referred to such targets), these are probably more an expression of what is possible than a ceiling on what these firms wish to earn (though we shall also cite evidence of firms that appear to restrain their effort to increase profits).

Once the formulas are established, there is much to be said for their mechanical application. This is especially true where there are hundreds or thousands of pricing decisions, as in printing. The routinization of pricing relieves management of the necessity for individual analyses. In a sense, the formula is a means by which market forces are brought to bear on the individual pricing decision.

Thus full-cost pricing is not necessarily antithetical to marginalism or profit maximization. It reduces the costs of decision making. It may also make particular sense in an oligopolistic market in which departure from full costs may set off a chain of undesirable competitive reactions. (This point is a central topic of the next chapter dealing with market structures.) The firm may find it more profitable to concentrate on nonprice competition which involves fewer risks of retaliation.

In any case, most of the companies that refer to full costs in pricing do not apply the formulas in a rigid way. Small businesses have an advantage over more bureaucratic large firms in that they can more readily depart from their rules when they see fit to do so. In our cases, full costs act as resistance points or reference points that influence pricing but do not impose mechanical solutions. Full-cost pricing as practiced by these firms is not in direct antithesis to marginalism, though it may interfere with complete flexibility in pricing.

SHORTRUN VERSUS LONGRUN FACTORS IN PRICING

Pricing decisions today have an impact on immediate and longrun profits. A decision that increases immediate profits may be inconsistent with longrun profit maximization. Thus

it is possible to rationalize some pricing behavior that appears in the shortrun to be unprofitable in terms of longer run repercussions.

Earley defines marginalism in terms of a "preponderance of short-range over long-range horizons."[3] He argues that rapid innovation makes longrun estimates of costs and revenues less relevant than they might seem in static economic analysis. This point is well taken, but innovation does not destroy the complete relevance of longrun considerations in pricing. Furthermore, our companies are undoubtedly subject to less innovative change than Earley's sample of progressive, large firms. Some of our firms are influenced by longrun considerations, and it seems reasonable that they should be.

An extreme illustration should make this clear. All of our printing firms receive some orders without predetermined price quotations. They could maximize their immediate profits by boosting their charges on the orders when they are complete. The manager of Printing Company B is instead extremely careful to see that his cost accumulations (the basis for the final bill) involve no padding. Obviously he is more concerned with the impact of his charges on future business than on how much profit he can extract from individual jobs. This illustration is based on an extreme definition of short run. We shall cite another, less extreme, case in which the evaluation of longer run effects play a strategic role in pricing.

Concrete Products Firm A does not charge all it can get in the immediate market. It does not exploit its semimonopoly position to the fullest; it chooses instead to build a reputation for low prices that creates longrun relationships with the customers (contractors). The manager hopes that this policy will contribute to a gradual growth in sales over the years.

The references to "goodwill" in several cases were further evidences of longrun influences on pricing. Printing Com-

[3] Earley, *Amer. Econ. Rev.*, XLVI, 59.

pany A hesitated to charge either more or less than full cost plus a predetermined markup, partly because of a fear that greater flexibility might damage customer relations. The management wished to avoid the impression of exploiting the market and of giving special deals to some customers. This is another reason that full-cost pricing is not necessarily inconsistent with marginalism, if we interpret marginalism to include such longer run forces. The decision maker should take into account the discounted loss in revenue that might result from the feeling that his prices are "unfair."

This is not to say that all of our cases reveal a strong influence of longrun factors. Some firms in fact appear to charge as much as the immediate market will permit. An illustration is the clay refractory, which has developed a new product on which it charges 80 percent more than on the old, despite the fact that it costs about the same. The manager believes that eventually competition will force his price down. In the meantime, he is making large profits.

PROFIT MAXIMIZATION

Profit maximization is a common assumption in economic analysis. This does not mean that economists believe that exclusive attention to profit is a correct description of behavior; most economists have been willing to recognize a multitude of motivations. The justification for the profit maximization assumption is that for broad segments of the economy it is operational; it leads to useful predictions. When we examine the decision-making process in detail, we can no longer be satisfied with this assumption. One major research question is the relative role of profits and other objectives in pricing decisions.

Unfortunately, it is impossible to assign precise weights to the objectives influencing business decisions. The following discussion, based on a subjective evaluation of cases, suggests that there are degrees in the strength and persistence

of the profit motive from one firm to another. Profit maximization is not the single, all-pervasive goal in pricing.

Gift Shop A has already been mentioned as a firm with fairly rigid policies on pricing. The owner maintains strong religious and ethical objections to charging what the market will bear. She is sensitive to the opinion of her customers (many are close acquaintances). She disapproves of some high markups she observes on the same items carried in stores in other cities.

The behavior of this owner-manager illustrates a point made by Oxenfeldt: "Businessmen have not been able to separate their business lives completely from their social relationships. While the ethical standards of business are very different—one would call them lower—from those governing most personal relationships . . . , businessmen are partly motivated by ethical notions."[4]

An even clearer illustration of restraint in profit maximization is the book department of the departmentalized college store. This case is of special interest even though it is hardly representative.

The Departmentalized College Store sells books to students below list price, earning a lower margin than is usual in similar stores elsewhere. The store could earn a larger profit by charging more. It instead feels an obligation to hold down student costs by operating on a low profit basis.

The store is owned by the college. There can be no doubt that this fact is central to the understanding of its price policy. The college has, in a sense, placed the store in a public utility category. Casual observation suggests that in private business the profit motive does in fact exert a greater pressure than in this store; it is difficult to imagine this degree of altruism on a widespread scale in our small firms.

Nevertheless, there are other examples in our study of firms that appear to seek "fair" rather than maximum profits. They include:

[4] Alfred R. Oxenfeldt, *Industrial Pricing and Market Practices* (New York: Prentice-Hall, 1951), p. 579.

1. A shoe store in which the partners claim to adopt a "live and let live" policy. They do not seem to exploit their monopoly position in "prescription" work (jobs involving special heels, braces, etc.). Perhaps this fact is not a result of profit restraint alone; it may also reflect the avoidance of the work and "worry" required by a fuller attention to profits.

2. The radio and television repair shop that charges standard rates on all bench jobs, despite apparent opportunities for price discrimination. The statement of the owner that he would be forced to discriminate if this business were his only source of income suggests that he is not now extracting the maximum possible profits from his customers. This may illustrate a more general point: that the stress on profits depends in part on competitive pressures. An owner-manager who is satisfied with his present status—who is earning what he considers a reasonable income and who is not threatened by competitive pressures—may not search as diligently for added profits and may be more concerned with "fairness" and "goodwill."

There are, however, many cases in the study in which the stress on profits is clear and intense. At the other end of the continuum from the cases with which this section started is an auto repair shop which illustrates a stress on profits that takes the firm into practices that many might consider on the borderline of ethical business conduct.

Automobile Repair Shop A refers to full cost in its pricing. But the manager achieves flexibility by adding or subtracting "frills." When he thinks that a customer is cost conscious, for example an insurance company, he takes care to do only the work that is necessary. In other instances he is more "liberal" in adding extra jobs that boost the total bill and the total profit. The manager also sometimes reduces costs by replacing with used parts for customers who do not watch for this possibility.

The contrast between Gift Shop A and the automobile repair shop demonstrates clearly that there is a substantial range in the intensity of the search for profits through price manipula-

tion. The manager of the gift shop would find it impossible to resort to the practices found in the auto repair shop; they would violate her code of ethics. The manager of the repair shop would surely be more flexible in his search for profits if he were running the gift shop. Thus the personalities and objectives of the individuals play a significant role in pricing; it is not entirely a matter of cost and demand, but it is also a matter of tastes and personal propensities. It is true that the market environment sets a boundary on what is possible. The price policies of the gift shop might mean failure in the auto repair shop, where the flexible striving for profits might be essential for survival. But there is no denying that the personal element is important, as is clearly seen in the change in the price policies of the gift shop that came with a change in ownership.

CONCLUSIONS ON MARGINALISM AND PROFIT MAXIMIZATION

This chapter does not conclude with dogmatic generalizations on marginalism and profit maximization in small businesses. The practices of the firms are variable. Very few use direct incremental measurements in pricing. A majority probably at least move in the direction of marginalism by trial and error and by imitation. There are four reasons that some firms fall short of an extreme version of the marginalist position:

1. Some managers are motivated not only by the desire for profits but by other objectives, particularly of an ethical character, that call for restraint in profit seeking. If marginalism is interpreted broadly, as many economists prefer, to include all objectives, this point is not in conflict with the theory.

2. The information and skills required by a full application of marginalism are not easily available. Most of these firms cannot afford a great deal of experimentation with

pricing, so that even the trial-and-error approach is limited in its capacity to indicate maximum profits.

3. Some managers are satisfied with less than the optimum. They are more concerned with making a reasonable living than with getting the highest possible profit. They often simplify life by accepting outside pricing guides, such as the suggestions of manufacturers and wholesalers.

4. Some managers simply do not accept the logic of marginalism, refusing to price any product at a level that does not return a profit above full cost.

COMPARISONS WITH OTHER CONCLUSIONS

Perhaps the best way to review the findings in Chapters 3 and 4 is to compare them with conclusions of other authors.

1. *P. W. S. Andrews*—A businessman will "try to avoid quoting a price which he could not maintain in the long run. . . . Goodwill is too precious a commodity, and takes too long to build up, for it to be thrown away on a wrong pricing policy."[5] Our study supports the importance of such longrun, goodwill considerations, but with varying degrees from one case to another. Our study does not support so widespread a reference to cost as the base for pricing as Andrews[6] and other British observers seem to find.

2. *James S. Earley*—"Most of these companies [in his sample of 'excellently managed' companies] apparently either consciously pursue the advantages of price-cost differentiation or make so many exceptions to uniform full-cost-plus pricing that it has ceased to be recognized as an objective."[7] Earley's conclusion is in strong contrast to that of full-cost theorists; it is of course based on a different sample, one which is also entirely different from the one in this study.

[5] P. W. S. Andrews, "Industrial Analysis in Economics," in Thomas Wilson and P. W. S. Andrews (eds.), *Oxford Studies in the Price Mechanism* (Oxford: Clarendon Press, 1951), p. 163.

[6] See his *Manufacturing Business* (London: Macmillan Co., 1949), especially chapter 5.

[7] Earley, *Amer. Econ. Rev.*, XLVI, 56.

Our findings are somewhere between; we find many references to full cost but many departures from full-cost formulas because of market conditions. We find much less application of cost breakdowns than Earley discovers in his larger firms.

3. *Alfred R. Oxenfeldt*—"[B]usinessmen just don't know their cost and demand curves and do not know how alternative actions would affect *future* costs and demand conditions. . . . [T]he businessman's problem is not essentially mathematical but consists of estimating the effects of various marketing policies upon sales—both in the near and more distant future. . . . Thus, the price theorist primarily tells the businessman how to analyze data which the businessman does not have."[8] Our findings are consistent with the first part of this quotation. But it does not follow that we must accept the rest, for marginalism does not require the knowledge of cost and revenue functions this quotation seems to imply. We believe that at least some of the managers of our concerns move in the direction indicated by price theory by trial and error and by imitating the successful practices of other firms. A great deal of the behavior we have observed can be partly rationalized in terms of the usual marginalist theory.

4. *Robert F. Lanzillotti*—Management's "approach to pricing is based on *planned* profits. The company proceeds on the assumption of a need for a certain amount of capital to undertake the investment in plant expansion and new facilities. . . . The only way in which price policy can be viewed in such companies . . . is in terms of profits-investment ratios. This criterion serves as an effective guide for pricing decisions at divisional and departmental levels. If we are to speak of 'administered' decisions in the large firm, it is perhaps more accurate to speak of administered *profits* rather than administered *prices*."[9] This stress on "target returns"

[8] Alfred R. Oxenfeldt, "Pricing in a Declining Market," in *Marketing's Role in Scientific Management* [Proceedings of the Thirty-ninth National Conference], ed. by Robert L. Clewett (Chicago: American Marketing Association, 1957), p. 186.

[9] Lanzillotti, *Amer. Econ. Rev.*, XLVIII, 938.

on investment in large business does not seem to apply to our small firms. Only a few firms (such as Furniture Company D) referred to percentage targets at all, and even then the target was expressed as a percentage of *revenue*, not of *investment*. It seems fair to say that more frequently the managers of our firms, when they were influenced by targets, thought in terms of *absolute income* rather than percentages. An example is one of the nurseries, the owner of which was influenced by his income statements to revise prices. This determination of whether profits are "satisfactory" is very common in our cases.

5. *Alfred E. Kahn*—In commenting on the same cases which were the basis for the preceding quotation, Kahn reaches quite different conclusions. He argues that "the target return seems . . . to reflect what the executives think the company can get; and to the extent actual earnings diverge from the target, it is because the market turns out to allow more or less."[10] Kahn points out that what seems "fair" varies and suggests that this is due to the fact that what the market permits varies from industry to industry. While it is difficult to prove the case one way or another, our firms would seem to support the view that the targets of these firms are adapted to what is possible. But this does not force us to the extreme view that only profit maximization is operative as a goal. We have, in fact, presented evidence of conflicting goals in some of our companies, along with indications of restraint in the emphasis on profits.

6. *Fritz Machlup*—"It should hardly be necessary to mention that all the relevant magnitudes involved—cost, revenue, profit—are subjective—that is, perceived or fancied by the men whose decisions or actions are to be explained . . . —rather than objective—that is, calculated by disinterested men who are observing these actions from the outside and are explaining them (statisticians and economists as theorists—not as consultants).

[10] Alfred E. Kahn, "Pricing Objectives in Large Companies: Comment," *American Economic Review*, XLIX (Sept., 1959), 671.

"Business men do not always 'calculate' before they make decisions, and they do not always 'decide' before they act. For they think that they know their business well enough without having to make repeated calculations; and their actions are frequently routine. But routine is based on principles which were once considered and decided upon and have then been frequently applied with decreasing need for conscious choices. The feeling that calculations are not always necessary is usually based upon an ability to size up a situation without reducing its dimensions to definite numerical values."[11]

These quotations seem completely consistent with our findings. Or perhaps more accurately, they help interpret the findings. Machlup does not insist that profits are the only objective. He recognizes that marginal analysis must imply "subjective estimates, guesses and hunches." He does not deny that much business behavior may be "non-rational, blindly repetitive, deliberately traditional, or motivated by extra-economic objectives." Nevertheless, he stands firmly by marginal analysis.

There is some disagreement among economists as to whether marginalism should be defined as broadly as Machlup desires. Henry Oliver takes the view that this reduces marginalism to a mere statement that a businessman "will consider everything that may increase his income and everything that may increase his outgo and then try to strike the best balance."[12] Oliver makes the valid point that flexibility in margins does not mean marginalism; it may instead mean only "partial marginalism." Many of our cases support this conclusion; the small firms in our study are not constantly revising prices with changing costs and demand, but usually make revisions only after some time has elapsed.

Robert A. Gordon joins Oliver in the criticism that Machlup's interpretation of marginalism is too all-encom-

[11] Machlup, pp. 521, 524-25.

[12] Henry M. Oliver, Jr., "Marginal Theory and Business Behavior," *American Economic Review*, XXXVII (June, 1947), 376.

passing; Gordon believes Machlup's approach can rationalize whatever the entrepreneur does.[13] In large part this is a semantic question: Marginalism can be defined narrowly or broadly, just as full-cost pricing can be defined to imply either rigid or flexible markups. This study does not accept marginalism as narrowly defined, implying direct knowledge of marginal revenue and marginal cost; nor does it support full-cost pricing with rigid markups. It does give evidence of "partial marginalism" and of the use of full costs with flexible margins. And it does indicate multiple objectives and degrees of ignorance, inertia, and, in some cases, even bad logic.

7. *Herbert A. Simon*—"While economic man maximizes—selects the best alternatives from among all those available to him; his cousin, who we shall call administrative man, satisfices—looks for a course of action that is satisfactory or 'good enough.'

"Administrative man . . . is content to leave out of account those aspects of reality—and that means *most* aspects—that are substantially irrelevant at a given time. He makes his choices using a simple picture of the situation that takes into account just a few of the factors that he regards as most relevant and crucial."[14]

Simon's point of view is somewhat different from that of the economist. Both views appear to be relevant in our study. The view of the economist fits some of our cases more clearly than others. Our decision makers appear to be "intendedly rational," to use one of Simon's phrases. They are striving to maximize the goals they have set for themselves. But they are bounded by their shortage of information and by the complexity of the situations with which they are dealing, so that it is not surprising that they fall short of the optimum.

[13] Robert A. Gordon, "Short-Period Price Determination in Theory and Practice," *American Economic Review*, XXXVIII (June, 1948), 265-88.

[14] Herbert A. Simon, *Administrative Behavior* (2d ed.; New York: Macmillan Co., 1957), pp. xxv-xxvi.

The contrast between economic theory and organization (administrative) theory as exemplified by Simon, can be overdone. Each casts light on the kinds of behavior covered by this study. Profit maximization is a primary goal in many of our cases. Many of the firms move by trial and error in directions consistent with marginalism. But decision making is complicated by a multiplicity of goals and by uncertainty. It is quite understandable that many of our firms settle for satisfactory solutions and do not worry too much about whether they have achieved the "best" prices possible. Furthermore, there are other ways of achieving greater profits which may be more certain and less subject to retaliatory action. These include all the forms of non-price competition such as advertising and other types of sales effort. They also include attempts to cut the level of costs through improved managment or innovation. Some firms are inattentive to price because they have more to hope for from alternative types of decisions.

Thus a synthesis of *economic theory*, with its stress on profit seeking and marginal analysis, and *organization theory*, with its multiplicity of goals and bounded rationality, is necessary to cover the whole range of cases in this study. The variety in motivation and in the ability to evaluate the outcome of decisions makes it impossible to apply a single, simple theory to all our firms.

5

MARKET STRUCTURE

WE HAVE demonstrated that in pricing, most of our 88 small firms give considerable attention to market conditions—to the behavior of competitors and to the resultant characteristics of demand. Up to this point, however, we have given little direct attention to these market characteristics and how they come to play on the pricing of individual firms.

A CLASSIFICATION OF CASES

This chapter follows the orthodox classification of markets in economic theory, fitting the cases into these well-known

categories: (1) monopoly, (2) oligopoly, (3) monopolistic competition, and (4) cases approaching pure competition. Because it is difficult to classify some cases into these categories, it is necessary to consider hybrids. We shall also consider the borderline cases that defy classification because of the absence of clearcut criteria.

Monopoly. None of our firms enjoys a "pure monopoly" position; they all face competition from some kinds of substitutes. Monopoly, however, is not absolute but a relative matter; in the usual usage it implies absence of "close substitutes." It should not be surprising that some of our firms are monopolies in this sense, despite their small size. This fact results from the geographical limitations of the markets for their products. The clearest cases of monopoly in our study are the following:

1. The billboard company, which operates in small towns where there are no competitors (at least none offering "standard-size" panels). The monopoly power of this company results from barriers to entry of new competitors. Such competitors would find it difficult to establish the contacts necessary for success. They would have difficulty winning business from the national advertising agencies, which prefer to deal with a single firm in small towns. They would have trouble getting local businessmen to transfer their advertising to a new outlet.

2. The bowling alley which (when completed) will operate in a town of 15,000. The management expects to maintain its monopoly position by the mere fact that the town is too small to support two bowling alleys. The management believes that no town within 30 miles is large or prosperous enough to attract competition.

These two companies have monopoly power arising not only from their present insulation from competition but also from barriers to such competition in the future. The billboard monopoly rests primarily on product differentiation advantages—it would be difficult for entrants to draw cus-

tomers away from the established firm. The bowling alley monopoly is based more on economies of scale—if a one-lane bowling alley were as economical as a sixteen-lane alley, there would be a threat of competition.

The remaining monopolies are in a much weaker position. One is a trampoline center in a large city. It has the advantage of being the first in that location, but it suffers from the disabilities that other trampoline centers can enter the city with only a small investment and that the demand for trampolines is based on a fad which may soon fade out.

It is questionable whether the theater should be included in the monopoly sector at all, for it faces competition from substitutes that are rather "close." It is the only enclosed theater in the city in which it is located. But television, drive-in movies, and perhaps the theaters in cities only a few miles away cut into its business and reduce its ability to increase prices.

How has the monopoly position of these companies influenced their pricing behavior? It has been argued that profit maximization may not be so strong a force in monopoly, that monopolies are not compelled to seek the optimum position. Hicks, for example, has stated that "the best of all monopoly profits is a quiet life."[1] Our strongest monopolies do not support this conclusion. If anything, the billboard company and the bowling alley show a greater than average attention to profits in their pricing. The billboard company management has been quite aggressive in searching for maximum profits. The bowling alley managers made a very thorough survey of practices in similar alleys before deciding on price. Apparently both have succeeded extremely well in approaching optimum profits. It seems that the billboard company is more able to experiment with pricing because of its monopoly position.

[1] J. R. Hicks, "Annual Survey of Economic Theory: The Theory of Monopoly," in American Economic Association, *Readings in Price Theory*, The Series of Republished Articles on Economics, vol. VI (Homewood, Ill.: Richard D. Irwin, 1952), p. 369.

These two cases are perhaps not representative. But they do suggest that whether a monopoly exploits its position in the market depends heavily on the ambitions and drives of its management. This is a point at which traditional economic analysis provides no framework for predicting individual firm behavior; it does not take into account the individual objectives and aptitudes that account for part of the pricing pattern.

The other two monopolies (the theater and the trampoline center) are weak in several respects. They have little protection against entry. One is subject to competition from substitutes so close that its very classification as a monopoly is questionable. Both face innovations that threaten their existence. The competition they face is more in the nature of the "creative destruction" described by Schumpeter, in which temporary monopolies are replaced by new monopolies based on new tastes and new technology.[2] The only hope for survival for these firms is to join the innovators—to produce new services to take the place of the old. The theater is likely to survive longer, for the change in tastes that has reduced its profits is a gradual one. The trampoline center may already have passed its peak; it is a good case of "perishable distinctiveness," in which pricing can do little to prevent the inevitable deterioration of demand. The trampoline center, therefore, has much to gain from a "high" price policy (one which takes great advantage of the fad while it lasts, without much concern about relating price to cost). There is little benefit to be gained from worrying about the impact of present prices on future business, since social attitudes and tastes, rather than

[2] Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper and Bros., 1942), pp. 81-86. Schumpeter argues that the really important competition is that which comes from "the new commodity, the new technology, the new source of supply, the new organization . . . competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of existing firms but at their foundations and their very lives."

past prices, will govern future volume. The theater, on the other hand, is not in a position to exploit a high temporary demand. It must try through its pricing to maintain the habit of movie attendance, keeping in mind the closeness of substitutes.

No wonder it is difficult to measure monopoly power. A measurement would have to take into account barriers to entry. It would have to recognize the time the monopoly control can persist in the face of innovation. It would have to ascertain the closeness of substitutes. In addition, it would recognize differences in the desire and ability to exploit an existing monopoly position.

Perhaps the fact that all four of these companies produce services is significant. Services do not travel long distances. In fact, in all these cases the customer comes to the product, a fact which limits the size of the market and restricts competition from firms elsewhere. Monopoly must be rather common in service industries, especially in small town locations. The monopoly power varies, depending on the ease of entry, the closeness of substitutes, and the rate of innovation.

Oligopoly. Some observers fail to recognize that the mere existence of a large number of firms in a particular industry does not assure that such an industry is competitive. If the industry is broken up into a number of independent markets, with only a few suppliers in each, there exist the conditions of oligopoly familiar in such national markets as steel or automobiles. At least 25 of our 88 firms are oligopolies. As we shall see, others are partly oligopolistic (some products selling under other market conditions). And there are still other cases that are difficult to classify. In any event, it is fair to conclude that, outside of agriculture and mining, oligopoly is quite common in small business, though probably not dominant.

The existence of oligopoly, however, does not lead to a standard pricing pattern, since this study shows examples of

collusion, of price leadership, and of the adoption of common pricing formulas based on full costs.

We start with a case of collusion. Two of the cement contractors in our study are members of the same cartel in a medium-size city. These firms have joined with others in presenting price lists to builders. While there are competitors outside the cartel, the cartel members are the only ones equipped to handle certain kinds of work. They periodically meet to review prices and costs, making adjustments in price when they believe cost or market conditions justify a change. The cartel agreement does not extend to small repair jobs—it would obviously be difficult to control pricing on such jobs because of their nonstandard character. The competition on these smaller jobs is so severe that the cartel members tend to neglect such work except to fill up idle time.

The prices quoted to builders by the cartel are about 15 percent above those of competitors. This would seem to be a situation in which the ease of entry would limit price increases. Apparently the shortage of skilled labor (concrete finishers) and the reputation of cartel members for high quality work act as barriers to the entry of new firms.

We have found no other cases of collusion in this study. Most managers prefer not to talk about such a subject, and it seems probable that there may be other collusive agreements not uncovered.

The remaining oligopolies do not require so much attention. Most of them are retailers or service outlets in communities too small to support a large number of competitors. Though these firms are keenly aware of the prices of their competitors, this does not lead to a single behavior pattern. One clothing firm is willing to experiment with prices in a market in which price competition is generally restrained. Some of the firms follow the prices set by others, illustrating the pattern of "price leadership" common in oligopoly. This price leadership does not always consist, however, of exact imitation of price. Sometimes it means

a pattern of a fairly fixed differential from the price of the leader.[3] The truck leasing firm, for example, maintained a price list 10 percent below its larger competitor (and even then temporarily broke away from this policy when it changed location).

The two flour mills and the meatpacker are examples of a different type of oligopoly from that discussed so far. Their markets are dominated by big national companies. The small firms do keep their prices in line, partly out of fear of retaliation, and partly because they think the national prices make sense in terms of changing costs (*e.g.*, wheat prices). Flour Mill B, however, is able to raise prices to 5 percent above the general market because of the reputation of its product among consumers. No doubt the demand for the products of these firms is highly elastic to price increases, and with the danger of a competitive matching of reduced prices, it is easy to see why they keep their prices in line with those of the large firms.

Monopolistic competition. Monopolistic competition, as one would expect, is even more prevalent among our cases than oligopoly. The firms in this category face a large number of competitors; they do, however, produce a differentiated product, and they have some control over pricing. They are not mere "price takers," such as would be the case under pure competition; but the range within which they can vary prices is limited by the closeness of substitutes.

There is not much one can say about pricing under these conditions beyond what is already clear. These firms generally do relate their prices to competition; they are aware that competition is more severe on some lines than on others and price accordingly. They may not always set prices at levels that will return the maximum profits, but most of them are at least trying to do so. These firms, like the

[3] This fact supports Bain's discussion of a "system of differentials among . . . prices." Joe S. Bain, *Barriers to New Competition* (Cambridge, Mass.: Harvard University Press, 1956), p. 8.

oligopolies, give considerable attention to nonprice competition; some of them rather than emphasize pricing clearly prefer to stress sales effort, advertising, the quality of service, and the maintenance of adequate inventories. This category includes laundries and dry cleaners, builders, electricians, repairmen, a variety of retailers, and furniture manufacturers.

A discussion of closer approximation to pure competition is postponed until later in the chapter; there is little evidence of this market structure in the present study.

Hybrids. It is a mistake to assume that a firm must fall into either one market structure or another. Most firms produce multiple outputs; some sell partly under conditions of oligopoly and partly in monopolistic competition. For example, some produce for a national market and must face competition from dozens or hundreds of concerns over the country; no doubt the elasticity of demand is very high for such production. But the same firms produce for local markets. Competitive conditions are not the same on each type of work even within a local market.

Furniture Company A benefits from a near monopoly position on some business. Customers seek its bid before contacting other suppliers. It is true that this firm would suffer a loss of volume if it raised prices above its present levels. But it clearly faces heavier competition when it bids on school or federal government contracts. This particular firm does *not* vary its pricing policies according to these differences in competition; it simply refuses to bid on most of the highly competitive jobs.

The silver firm has a much stronger monopoly position on some parts of its business than on others. The college store has a near monopoly in the textbook business, but faces competition from groceries, clothing stores, and drugstores on its other lines. Neither of these firms exploits its monopoly position to the fullest, but the differences in margins have some relation to the competition.

We have presented enough illustrations to support the

conclusion that many small businesses operate simultaneously in several market structures and that they often adapt their pricing to those different structures. But this is only one of the problems we encounter in classification. In a substantial proportion of the cases it is very difficult to determine whether the structure is oligopoly or monopolistic competition.[4] If management is aware that competitors will react to a change in its prices, it will take this into account—we can call this situation oligopoly. If it instead considers itself too small to have any *direct* impact on the policies of others, it falls into monopolistic competition. Unfortunately, it is very difficult to separate these two states of mind.

To take a specific example, can we say that a men's clothing market consisting of five firms in one small city is an illustration of oligopoly? The firms are quite aware of each other's pricing practices. They take into account possible reactions to their prices. But they also face competition from other clothing outlets—department stores and stores in nearby towns. And there is little evidence of high monopoly profits. We probably should recognize submarkets within the markets for men's clothing. The managers of high quality stores are not concerned with lower quality outlets in the same city. The high quality stores probably come closer to facing the conditions of oligopoly than do the others, which would help to explain the greater rigidity of their prices. Also there are suggestions in our cases that the retail markets are more competitive in the larger cities with numerous outlets. But all this is conjectural and illustrates the difficulty of classification.

No doubt future research will fill in some of these gaps.

[4] Economists have always refused to draw the line between the two on the basis of a single, definite criterion, such as the number of firms. It would be desirable to draw the line on the basis of some kind of measure of behavior. For example, one might follow Chamberlin in making the recognition or nonrecognition of possible retaliation as the key criterion. Edward H. Chamberlin, *Theory of Monopolistic Competition*, Harvard Economic Studies, vol. XXXVIII (Cambridge, Mass.: Harvard University Press, 1933).

At the present state of knowledge the complexity of the pricing situation precludes any neat classifications that would permit simple predictions. Pricing involves a complicated network of market forces, personality factors, tradition, and skills that cannot be summarized in simple models. We are not able to separate every case of oligopoly from every case of monopolistic competition or even to draw the line between what is monopoly and what is not.

ANALYSIS OF CENTRAL ISSUES

Up to this point the main task of this chapter is to classify the cases by market structure. The objective of the remainder of the chapter is to develop more fully some special considerations given only fleeting attention up to now. By concentrating on controversial issues, this section will clarify how this study differs from preceding ones. The main controversial issues are these: (1) Is it correct to describe small business as competitive rather than monopolistic? (2) How relevant is the kinked-demand theory in small business pricing? (3) Can full-cost pricing limit competition even under conditions of large numbers of firms? (4) Is the theory of pure competition relevant in small businesses of the sort covered by this study? (5) Is the theory of monopolistic competition relevant, and does it serve a purpose not filled by the theory of pure competition?

The competitive character of small business. George Stigler has found that competition is more usual in the United States than monopoly.[5] His classification of industries challenges the view common in the 1930s that monopoly (including oligopoly) was predominant. Stigler includes most oligopolies in his monopoly sector but, even so, finds that competition covers twice as much of the economy (measured in terms of national income) as monopoly.

[5] George J. Stigler, *Five Lectures on Economic Problems* (London: London School of Economics and Political Science, 1949), pp. 46-59.

Our study of small business suggests that Stigler's findings have important limitations. Apparently Stigler classified most industries with large numbers of firms nationally as competitive. Our findings indicate that in local markets a firm may be insulated from the competition in other locations. Stigler includes advertising in the competitive sector, but we have found a clear case of a local billboard monopoly. Stigler also includes contract construction and retail trade (other than liquor, gasoline, and milk) in competition, but we have found important examples of oligopoly and even collusion in such markets. In fairness we must admit that we have not shown that these departures from competition mean a significant degree of monopoly power. Apparently, some companies are earning profits above those usual in competition, but our data do not permit firm conclusions.

The findings of this study are inconclusive on the relative importance of oligopoly and monopoly in small business. But they establish that both conditions do exist and suggest that they are widespread.

The relevance of the kinked-demand theory. The present study is inconclusive on the relevance of the well-known kinked-demand theory. The theory is supposed to explain the rigidity of prices that is claimed to be characteristic of oligopoly. According to the theory, the firm maintains stable prices because of the *perceived* elasticity of demand to price increases and inelasticity to price decreases. Competitors, it is claimed, do not follow the price increases but do retaliate against price decreases.

Some of the managers in the study appeared to fear the consequences of both price increases and price decreases, as the theory would suggest. This is true of one concrete products firm, the chemicals company, the flour mills, and the meatpacker. But such reasoning also appeared outside of oligopoly and without reference to retaliation. The manager of Shoe Repair Shop A believed that volume would fall off sharply if he increased price but would react little to

price decreases. Many of the small retailers expressed similar opinions on perceived demand.[6] Three different interpretations of these findings are possible: (1) Some of these markets may actually be oligopolies of the "chain" variety described by Chamberlin (in which management is concerned with only its most immediate competition); (2) prices may be approximately at the point on a smooth curve separating elasticities greater than unity from those less than one; or (3) the managers may simply be rationalizing their inertia in failing to change prices.

One of the weaknesses of the kinked-demand theory is its failure to explain the obvious fact that prices do change. Stigler has demonstrated that in some oligopolies, prices are more flexible than the theory would allow.[7] It is possible that full-cost pricing is a device for reconciling kinked-demand thinking with the fact of price change. Firms pricing on the basis of full costs can achieve such flexibility if they are certain that their competitors, who are also experiencing cost changes, will follow the same pricing procedures. Some of the cases, including Flour Mill B, the laundry, and the auto rental firm, appear to be consistent with such an interpretation. These firms do change prices as costs change, but only in the expectation that competitors will do likewise. Thus the prices move, but the kinks move with the prices.

Even with this interpretation, the kinked-demand theory fails to explain how the markups on full costs are established. It is often stated that such markups are "traditional." Probably those markups become traditional which prove viable—which permit the firms to survive and earn a profit without encouraging new competition. All in all, the kinked-

[6] Spencer and Siegelman discuss cases of kinked demand based on custom. See *Managerial Economics*, pp. 283-84. Perhaps some of our managers are correct in assuming that consumers respond sharply to prices increased above the customary level, but will not respond to decreases below that level.

[7] George J. Stigler, "The Kinky Oligopoly Demand Curve and Rigid Prices," in American Economic Association, *Readings in Price Theory*, pp. 410-39.

demand theory is only a partial and somewhat unsatisfactory explanation of price behavior in either large or small firms.

Full costs as a control over competition. In oligopoly a certain amount of control over price can be achieved through adoption of common pricing formulas based on full cost. This type of limitation of competition seems a reasonable description of behavior where there are so few firms that each recognizes the risks of moving away from such a formula. But the strongest advocates of full-cost pricing that we have found are in printing, an industry characterized by large numbers of competing firms. There may be pockets of oligopoly in printing, based on special skills and equipment, but most of the selling is surely done under conditions of monopolistic competition. The theory of monopolistic competition suggests that these are not the conditions in which firms would profit from abandonment of price flexibility for some kind of formula.

Yet many printers are much concerned with full costs. They are trying to win industrywide acceptance of common accounting methods. They are encouraging other printers to adopt full-cost pricing in the hope that this will reduce "cut-throat competition." They have developed strong ethical feelings against those that do price below cost. They are concerned with the low level of profit on sales in the industry and hope that they can bring the price cutting under control.

A few quotations from a letter of one retired printer will illustrate this thinking: "We always tried to price on cost of production regardless of demand. It seemed to us a means of holding customers and keeping a reputation for integrity. . . . The worst battle printers had to fight . . . was that of trying to bring about better relations with other printers—trying to stamp out the cut-throat competition."[8]

[8] Fuller quotations appear in Part II. This is an illustration of a sincere condemnation of price competition on ethical grounds by a manager who at the same time is full of praise for the American competitive system.

The question here is how printers can hope to enforce such a control over competition. If they were temporarily successful in raising prices and increasing profits by such means, how could they hope to keep out new competitors attracted by higher profits? And in view of the fact that the very proponents of full-cost pricing do not consistently stick by the rules, it seems doubtful that they can induce others to do so.

The fact is that after decades of emphasis on full-cost pricing the printers are as much bothered by cutthroat competition as ever. This suggests that these attempts at control have failed. On a priori grounds alone any attempt at stabilizing prices in such an industry would seem doomed to failure. The temptation to shade prices to fill idle capacity is too great. Yet it will be interesting to see how the continued attempts at regulation of price through accounting fares in the future, for now there is greater attention than ever to the adoption of common accounting methods throughout the printing industry.

Approximations to pure competition. So far this chapter has neglected one of the four market structures listed at the beginning. It has given no attention to industries approximating perfect competition. There is a simple explanation for this. We have found only one case falling into this category. Almost all of our companies do have price policies; they establish their own prices within a range; they do not simply sell at "market prices." They are "price makers" rather than "price takers." The one exception is the case of the rock quarry, the management of which claims it has little control over price. The firm tries to increase profits by control of costs rather than by manipulation of price.

No doubt the selection of firms for this study explains the absence of more competitive conditions. An extension of the project into the areas of agriculture or mining would have revealed examples of "price takers." As a matter of fact, some preliminary interviewing in the coal mining industry

does suggest something closer to perfect competition. It is true that the mining officials interviewed do not content themselves with accepting the market price. Some of them advertise in trade journals or on signs along the highway. Some of them have built up "contacts" and "selling connections" that clearly give them an advantage. Furthermore, some coal mines have built up a greater reputation for dependability of delivery or quality than others. Coal is not a homogeneous product and is not sold exclusively on a price basis. At the same time, our preliminary interviewing does indicate that the price discretion of these firms is extremely limited. Perhaps price increases of only 2 or 3 percent would result in a total loss of sales. Certainly in selling to the TVA market, where coal is purchased on a strict bidding basis, there is little room for choices about price.

Despite the unrepresentative character of the cases in this study, it is safe to conclude that small business is more frequently characterized by monopolistic competition rather than close approximation of pure competition. When we take a close look at these firms, we find that they do have some control over price and they do make pricing decisions.

The relevance of the concept of monopolistic competition. The preceding discussion suggests that the distinction between pure competition and monopolistic competition is significant when it comes to the pricing policies and practices of individual firms. In pure competition there is no problem of decision on prices, since the prices are given by the market. In monopolistic competition there is concern with prices and there are organizations, rules, procedures, or mechanisms by which prices get set. In perfect competition a manager may spend time forecasting future prices and making decisions about selling now or later, or about expanding or curtailing production. In monopolistic competition there are the added problems of setting the level of prices themselves. Even the cases of imitation and of mechanical

markups do not suggest perfect competition; instead they indicate the adoption of a routine that saves internal management time.

Why, then, have some economists been so skeptical of the relevance of the concept of monopolistic competition and so willing to fall back on the theory of perfect competition? Hicks, Stigler, and other prominent economists have taken this skeptical position.[9] These economists are not particularly interested in the internal decision processes in setting prices. They are concerned instead with making predictions of broad aggregates. They doubt that a "realistic" description of decision-making processes is necessary for that purpose. As Stigler states: "The role of description is to particularize, while the role of theory is to generalize—to disregard an infinite number of differences and capture the important common element in different phenomena."[10]

Thus the relevance of the theory of monopolistic competition is in dispute when it comes to social economics. But this study is also one in business economics—in decision making—in which it is desirable to look closely at the trees as well as the forest. If we have described individual company practice in detail, it is because we believe that there is much to learn about pricing decisions from such descriptions.

CONCLUSION

The study finds significant proportions of monopoly and oligopoly in a sector of the economy which is usually described as competitive. In particular, it finds limited competition in local services in which the market is restricted geographically by the technical incapacity to transport such services long distances. The interviews indicate kinked-demand reasoning not only where it might be expected (oligopoly) but also where it would not be expected

[9] Hicks, pp. 371-74; and Stigler, *Five Lectures*, pp. 23-24.
[10] Stigler, *Five Lectures*, p. 23.

(monopolistic competition with large numbers of firms). The study also reveals attempts to control price competition by adoption of common price formulas not only where success might seem possible (oligopoly) but also where the free entry of firms and large numbers would seem to doom such attempts from the outset.

The study points up the great difficulty of classifying firms by market structure. A multiproduct firm may operate simultaneously in oligopoly and monopolistic competition. Because of lack of clarity in defining the differences between the categories and difficulties of measurement, the line between oligopoly and monopolistic competition is particularly unclear, but there are even problems in determining whether or not a firm is a monopoly. It follows that we are not yet prepared to predict individual firm behavior on the basis of market structure. This, along with the multiplicity of company goals, the diversity of personality factors, and the complexity of traditions, means that a scientific theory capable of predicting detailed price behavior does not yet exist.

6

CONCLUSION: THE PRESCRIPTIVE IMPLICATIONS OF THE STUDY

A STUDY OF pricing may aim at a variety of objectives: (1) more complete description of actual company behavior; (2) improvement of the economist's ability to forecast price changes broadly; (3) improvement of the knowledge of business behavior required for social control; (4) improvement of the ability to predict behavior of the individual firm; and (5) improvement of the internal pricing practices of business itself. The present study stresses the first and last of these objectives.

The interview approach used in this study contributes to a deeper probing into the details of pricing behavior than

is possible in any other way. Practices which upon first questioning appear to be rigid and unimaginative often turn out, on further investigation, to be more flexible and resourceful. Previous mail questionnaire or structured interview studies may have reached different conclusions from those in the present study partly because of a failure to examine closely enough the actual pricing processes. The widely accepted conclusion that full-cost pricing prevails is probably based in large part on this failure.

It is unnecessary to review the detailed descriptive findings of this study; the individual chapter conclusions serve that purpose. It also seems unnecessary to repeat the reasons that the present research has made little contribution to prediction and control, though it is possible that in the future a fuller understanding of individual price behavior will increase our understanding of the inflationary process. This chapter restricts its attention to some comparisons with previous studies and to the prescriptive implications of the findings.

RELATION TO PREVIOUS STUDIES

The present study reaches conclusions somewhat different from earlier studies which generally have stressed big business.

1. It does not find the rigid adherence to full-cost pricing indicated by some previous studies, though it does find full costs serving as resistance or reference points. In general, markups are flexible in small business. The pattern of behavior in small business supports the conclusions of Cyert and March that group decisions (more usual in large firms) are more dependent upon predetermined policy and that longer chains of communication (also more usual in large firms) inhibit change.[1]

[1] See Richard M. Cyert and J. G. March, "Organization Factors in the Theory of Oligopoly," *Quarterly Journal of Economics*, LXX (Feb., 1956), 44-64; and Richard M. Cyert and J. G. March, "Organization Structure and Pricing Behavior in an Oligopolistic Market," *American Economic Review*, XLV (March, 1955), 129-39.

2. The present study does not lend support to suggestions that business is adopting incremental accounting techniques consistent with marginalist theory. In small firms, accounting appears to have a limited role in pricing decisions, and when it does play a role, it leads to stress on full costs and averages, rather than on incremental costs and demand considerations. The extent to which small businessmen are marginalists results not from their use of accounting but from their experimentation in the market, their willingness to evaluate demand and costs subjectively, or their imitation of the practices of other firms.

3. The present analysis differs greatly from a British study of 20 firms (including 12 small firms), which finds strong evidence of full-cost pricing.[2] One of the differences is semantic; the author of the British study defines full-cost pricing to permit adjustment of the margins to market conditions. The author neglects to give adequate attention to how those margins are determined, giving relatively little attention to demand forces. The author states that the managers of small firms believed demand to be almost infinitely elastic, a conclusion quite different from ours. He also claims that shortrun profit maximization is unacceptable for most of his firms, while our case studies reveal considerable variety on this score.

4. The present study does not find a stress on "target returns," which have been emphasized in recent studies of big business.

5. The present study finds evidence of oligopoly and monopoly in small firms and some of the same kind of kinked-demand thinking previously found in studies of large firms. It finds evidence, however, that the kink is not always attributable to feared retaliation against price changes.

6. Small firms in some industries, such as printing, appear to strive for control over price competition through adoption of common accounting and pricing techniques.

[2] D. C. Hague, "Economic Theory and Business Behavior," *Review of Economic Studies*, XVI (1949-1950), no. 3, pp. 144-57.

Such approaches may work in oligopolies composed of either large or small firms, but it seems doubtful that such attempts to control price cutting can be operative in industries with large numbers of competitors and relatively free entry.

The present study comes closest in conclusions to Bjarke Fog's recent volume, *Industrial Pricing Policies: An Analysis of Pricing Policies of Danish Manufacturers.* Fog finds, for example, that flexibility in the margins added to full cost is more pervasive than rigidity. Fog goes further than the present volume in attempting to reconcile marginalism with full-cost pricing; our cases suggest that while "partial marginalism" is widespread, behavior is so diverse that we cannot safely make a broad generalization. The similarity of many of Fog's conclusions with those reached here may suggest that economists are approaching a consensus on pricing practices: a consensus that recognizes a considerable variety in procedures and outcomes and that avoids extreme generalizations about full costs, marginalism, target returns, or profit maximization.

CONTRIBUTIONS TO PRICE POLICY

Probably the most significant contribution of this study to practice is in describing what firms do. The manager of a small business will discover from the preceding chapters a variety of ways of attacking the pricing problem. This should stimulate him to reflect on his own practices and to consider alternative policies. If he is addicted to one of the myths about pricing found in some business circles, this study should help him achieve wider perspective on what is possible. For example, this study lends little support to the view that pricing on the basis of cost is "scientific" and raises doubts about the profitability of constant markups on cost; it does not, on the other hand, support the view that imitation is always merely a lazy manager's escape from decision making. It recognizes that some managers may be quite correct in concentrating on other problems, such as

the maintenance of adequate inventories, or sales promotion, or employee morale. The last thing we would wish to convey is that the pricing problem of every business is the same.

As a result, the suggestions that follow vary in relevance from one firm to another. Most of the following discussion shows the influence of the writings of Joel Dean, who has succeeded more than any other writer in expressing economic analysis in a form that is useful to the businessman. In some cases Dean's conclusions require modification to meet the conditions of small business rather than the large firms with which he was more directly concerned.

Individualization of pricing: cross-sectional flexibility. Our study indicates that many small businesses do succeed in adapting prices of each product to the diverse conditions of demand and competition. This suggests that those firms following rigid pricing formulas or following mechanically the advice of manufacturers or wholesalers, or simply imitating the prices of others, might consider whether greater imagination in pricing is justified. This is a problem of benefits versus costs. We do not advise all firms to abandon their present simple or mechanical approaches, for the costs in terms of management time may be too great. We do suggest that managers should consider the problem and make a conscious choice between careful individualization of prices (cross-sectional flexibility) and the simpler mechanical rules.

Flexibility of prices over time. We have found diversity in the willingness of small firms to vary prices with changing economic conditions. We do not argue that every firm would benefit from greater flexibility. But some firms could undoubtedly profit from adaptation of prices to changing conditions—to attain greater use of idle capacity or to ration capacity when it is short. Surely the policy of a few firms of following full costs when volume is low and when

overhead costs per unit are consequently high could lead to pricing themselves completely out of the market. The policy of other firms in refusing to bid below full cost when the incremental revenue clearly exceeds the incremental cost and when there are no longrun penalties for such behavior is equally difficult to justify.

Longrun welfare of the firm. As a qualification to the previous subsection, we can see considerable logic in the emphasis some firms place on the longrun dangers of too much price flexibility. Future business and the managers' relations with their communities may be affected by the impact of prices on customer goodwill and the firm's reputation for "fair" prices. Each manager must evaluate the importance of such considerations in his own circumstances. He must determine for himself what values are important to him and make his decisions accordingly.

Complementary sales and company "image." The firm should consider not only the impact of shortrun prices on future volume; it should consider the effect of the price of one commodity on the sale of others. This study includes cases of the careful consideration of the interrelation among the prices of different commodities. A firm should not through its pricing destroy the kind of "image" it is trying to create in the minds of the public. This may mean avoidance of "odd prices" (prices at 99 cents, for example) by a firm that is trying to maintain a reputation for conservatism and quality. It may mean avoidance of scattered high markups by a store that is trying to maintain an "image" of a low-price family shopping center. Again the importance of such considerations varies from firm to firm. Some firms selling in an "informed" market may have nothing to gain from attention to such interrelations in demand; the buyers may purchase strictly on a price and quality basis.

Avoidance of full-cost pricing. Our findings indicate that rigid full-cost pricing is less common in small business than

previous studies (and some of Dean's statements) suggest. But some firms are heavily influenced by full-cost formulas and might well benefit from reconsideration of their pricing practices. While the arguments against full-cost pricing are strong, there may be more to be said for it in some circumstances, such as oligopoly, than Dean is willing to admit. At the same time, we are skeptical that it can accomplish the stabilization of prices and profits that appears to be its objective in competitive industries, such as printing. The question of whether full-cost pricing does contribute as much to the maintenance of customer goodwill as some managers claim deserves further research.

Attention to demand and competition. The preceding discussion indicates that most firms should give high priority to demand considerations in their pricing. Many managers look upon costs as something "real" while demand involves "guesswork." The fact is that there are many different cost concepts, and that the accountant's usual historical measurements of costs are extremely questionable when it comes to making decisions for the future. Demand may be difficult to estimate, but it is relevant. Managers should not avoid weighing factors merely because these factors are subject to errors of estimation. Doing so would be comparable to the United States' ignoring the Soviet Union defense program because there is so much uncertainty about it.

Our findings indicate that most small businesses do give attention to demand and competition—much more than the managers themselves recognize in many cases. But the mythology of costs is no doubt keeping other firms from giving as much attention to demand as is appropriate.

Sources of information on demand. If it is true that prices should be demand oriented, where can small businesses hope to get the requisite information? The manager himself is capable of making judgments about demand. For example, he no doubt can estimate the sensitivity of customer pur-

chases to changes in prices on particular items. If a customer is in a good position to compare the prices of competing suppliers, the demand for his product is likely to be highly elastic. If the customer does not have the basis for such comparisons, the manager can develop considerable skill in estimating differences in demand elasticities simply through close observation and careful reasoning about consumer behavior.

Trial and error may provide considerable insight into price-volume relationships. Some of the most convincing cases of successful pricing are those in which management has varied price and has observed the demand and profits response. No doubt such experiments are more costly and risky in some businesses than in others. But past experience with responses to price changes is a major source of information about demand.

Very few small businesses engage in any kind of formal market research. Such research might provide more objective, statistically supported data on demand characteristics. The problem is again one of costs. Small business may have too small a volume to justify these expenditures.

Relating prices to the product's life cycle. One of Dean's most important contributions to the study of pricing is his recognition of the importance of a product's life cycle. He stresses the difference between new products just entering the market and mature products facing a deterioration of demand. On new products he makes a distinction between "skimming price" and "penetration price." On some new products a firm may find it profitable to charge a price considerably above cost to take advantage of an inelastic demand and to safeguard profits. In other cases a high elasticity of demand, a high response to promotional effort, the economies of large-scale production, or the threat of entry of competition may warrant a low penetration price. Two cases in the present study suggest a situation that Dean does not discuss. These two companies are producing new

products that are threatened by a rapid degeneration of demand. But they are charging a skimming price. This is probably a profitable policy, since it appears that the demand is inelastic and that it will deteriorate without regard to current prices.

Dean suggests that firms with mature products—those facing competition from new substitutes—should reduce price as the deterioration sets in. He qualifies this conclusion for conditions of oligopoly, recognizing that price wars might result. The theater and one of the concrete product firms in this study have followed the opposite course of maintaining high prices despite the inroads of substitutes. In both cases their policy seems appropriate. The demand is inelastic despite its decline. The theater has actually increased prices for children despite the inroads of television—and this decision seems reasonable in view of the probable low elasticity of demand.

PRICING AND INCREMENTAL REASONING

It is much more important to develop a way of reasoning about pricing than it is to learn specific rules. Correct reasoning can be adapted to particular circumstances; rules by their nature are inflexible and may be wrongly applied. A decision maker who has a correct understanding of incremental reasoning is capable of a flexible adjustment of policy to circumstances.

Many small businessmen are intuitive incremental reasoners. They may not have heard of incremental costs or demand elasticities, but they reach decisions that are consistent with these concepts. But obviously, other businessmen are falling short of a full application of incremental reasoning. Some managers argue that they must make profits on every job, by which they mean that there must be a markup above full costs; others take overhead cost allocations too seriously. And undoubtedly, some avoid

experimentation with pricing simply because it is beyond their experience.

In such instances, the best service this volume can perform is to encourage the fuller application of incremental reasoning. This would mean more careful consideration of the impact of decisions on *changes* in revenues and costs. It implies the consideration of both the longrun and shortrun effects of price changes, recognition of the possible reactions of competitors, the separation of fixed and variable costs (and even finer categories of cost), and the consideration of the interrelated character of product demands.

Unfortunately in this area, as in others, "a little learning is a dangerous thing." Frequently, incremental reasoning is taken to imply prices equal to incremental costs. This is a misunderstanding. Incremental reasoning requires recognition of both cost and demand considerations. It means low prices only when demand elasticities are high at levels below average costs and when there are no alternative uses for facilities. Perhaps the last point deserves particular attention, because it has not been stressed up to this point. It is obviously unprofitable to produce a commodity or service with a low contribution to overhead and profit if the same facilities can be used to produce more profitable items.

Sound incremental reasoning involves all of the following steps:

1. Consideration of price-volume relationships (elasticities of demand) to determine what happens to total revenue at various prices.
2. Comparison of those price-volume relationships with incremental costs to determine the most profitable price on each item.
3. Estimation of the contribution to overhead and profits on each product that can be produced with the given facilities.
4. Selection of those products and sale at prices that will assure the largest contributions to overhead and profits.
5. Investment in new facilities (or in the replacement

of old) according to the estimated profits in the future of alternative products at optimum prices, taking all costs into account.

Despite all that has been said here, some businessmen will persist in setting prices on the basis of full costs because they feel that "they must cover all their costs to avoid bankruptcy." They argue that in the long run, prices must cover all costs—an assertion which is perfectly true but not very helpful. There is no such thing as a longrun pricing decision. There are instead sequences of shortrun decisions within, perhaps, a longrun policy. Any decision must be made at a moment in time. The decision maker may take the longrun impact of his price into account; we have argued that he should do so. But the decision is still shortrun. If the best shortrun price will not cover all costs, including fixed costs, the only escape is to look for alternative products or to fail to replace the facilities as they wear out. Thus the longrun decision is an investment decision and not one in pricing.

We have argued that full-cost pricing is reasonable in some circumstances. But this is true because in the short run the impact of changes from full costs is unfavorable. Thus this is not an exception to incremental reasoning and not even an exception to the principle that fixed costs are irrelevant. All of the justifications of full costs that we have presented are justifications in terms of demand and not in the name of the "recovery of fixed costs."

The principles in this chapter are quite general. The individual decision maker must employ his skill in particular applications. Unfortunately, there is no rule book that will provide a simple answer for each specific case. Far from arguing that business economics can supplant the skill of the individual businessman, we make the more modest claim that a knowledge of fundamental principles along with a study of concrete pricing practices can help him sharpen those skills.

PART II

THE INDIVIDUAL CASE STUDIES

PART II PRESENTS summaries of the individual case studies, organized by industries or by categories within industries. Space limitations prohibit detailed discussions of all the cases; brief comments on the general findings of some take the place of detailed summaries. Two criteria determine which cases are discussed briefly rather than in detail: (1) repetition of patterns already covered, and (2) uncertainty about the interpretation of the findings.

FIVE GARDEN AND LANDSCAPE NURSERIES

The five nurseries covered by this study have one important common characteristic—they all grow a majority of their own plant materials. Nurseries which buy materials at wholesale would undoubtedly display different characteristics, more like those of the retailers. Cost plays a reduced role in pricing by nurseries growing their own plants, for cost is extremely difficult to measure and presents overwhelming conceptual difficulties. Therefore, it is not surprising that these firms stress competition in their pricing decisions.

NURSERY A

Description. The firm engages in the propagation, growing, and retailing of plants. It also handles landscaping, some wholesaling, and a small volume of catalog business. About 40 employees and 400 acres.

Chief considerations in pricing. 1. Costs are difficult to determine because of the time it takes plants to mature and the extreme variability of losses as a result of weather. Demand and competitive conditions, therefore, appear to be the important influences on pricing.[1] But the fact that the size of wage increases affects the extent of price rises indicates that cost does have an influence.

2. The whole structure of prices in the industry is apparently related to differences in labor costs, which are generally high in the north and low in the south. The management does not watch the prices of firms to the south or north very closely, but it does "feel" that its prices are in between. The management pays some attention to what competitors in their own location are charging, especially the national chains.

3. Some plants for which local conditions are superior can be grown in large blocks. The management sets lower prices on them in line with the lower costs.

Price differentials; variable markups. Markup has little meaning because of uncertain costs. Retail prices are the same to all customers whether catalog, phone, or personal sale. Prices stay the same throughout the year, except for the May sale. Wholesale prices are also inflexible throughout the year.

Further discussion of cost and demand considerations. 1. The willingness to sell overstocked items at lower prices is partial evidence that the firm is not tied strictly to costs in its pricing.

2. In theory, one would expect attention given to opportunity costs—the rationing of limited land to those plants that provide highest return. In practice, the company does not give opportunity costs careful consideration except in extreme cases in which demand is falling off. In other words, the company does not seem to know precisely whether a reallocation of land would increase profits.

3. The demand for particular plants can be quite important in determining whether to increase or decrease price.

[1] Throughout these case presentations there will be interpretations of this sort. We also translate the interviewees' statements into the jargon of economics. For example, we have supplied such terms as "elasticities" and "market structures."

For example, a juniper which sold in earlier years at $3.00 now sells at $2.50. The decline in demand and the fact that competitors were lowering their prices were influential. Another illustration—one Taxus Browni was in short supply in relation to demand in 1952-1953. But the supply has increased, so that the price has been reduced to a more normal level.

Market structure. The firm is the largest nursery in the city, facing competition from three or four other local firms, plus national chains. There is some protection from competition because of the firm's reputation for quality. The firm has some control over its own prices—demand is far from completely elastic. Perhaps the situation is best described as differentiated oligopoly. There is some attention given to possible reactions of competitors to price changes.

Other points. 1. There is an annual sale in May. The company cuts prices on overstocked items and on lower quality plants, and on predug and dormant plants that have not sold.

2. Prices are extremely inflexible during most of the year. The firm sets prices in September and adheres to them despite the market situation.

3. The management prefers round-number pricing ($6.00, $6.25, $6.50, and $7.00). But there were exceptions in 1958-1959—one item sold at $6.95, another at $8.95; there was a feeling that there would be resistance to higher prices. The reasons for the round numbers are: (1) They are in the tradition of an old established firm; (2) they are more dignified and in strong contrast to chain and mail-order prices.

4. In 1960 the firm experimented with a few special prices—$1.11, $2.22, and $4.44 (distress items the firm had not been able to sell).

5. The firm sells some patented plants on which the national price is set by the firm holding the patent. The patent holders license the nursery and charge a royalty. The result is a high unit profit on these sales because of the lower local labor costs.

6. The company does not have a clear idea of whether it is making or losing money on particular items. It keeps on propagating items on which it may be "losing money."

7. The firm does some forecasting—mainly trend projection. Past tendencies are projected into the future to give estimates of sales. These estimates are highly subjective.

It is unnecessary to present the remaining four nursery case studies in detail, since they introduce no significant new

points. In all of them costs are nebulous, but the managements are influenced by "feelings" about cost. All of the managements recognize the important role of the market—of competition and demand. All of them feel that they are earning lower profits on some plants than on others, largely because competition will not permit higher profits on some plants (competition from the south on low-cost flowering shrubs is an illustration). All of them pay attention to overall "income" and are stimulated to take action if it falls to an unsatisfactory level.

Most of these nurseries buy part of their supplies at wholesale and apply a markup. In this sphere of their activities they are like other retailers, examples of which follow.

FOUR AUTOMOBILE REPAIR SHOPS

The four automobile repair shops covered by the study fall into two types: (1) Two of them are independent garages, one of them specializing primarily in body repairs, the other in brake and wheel work; (2) the other two are automobile sales agents with repair departments. The last two companies are not satisfied with the profits earned from repair services but feel compelled to maintain such departments in conjunction with their selling activities.

Only one case is presented in detail. It is one of the clearest cases of marginalist thinking in pricing. The owner adjusts his prices to both demand and cost conditions, and even varies the quantity of work to the demand situation of each customer.

Repair Shop A

Description. A one-man concern with only three employees, specializing in body repairs but doing other types of automobile repairs also.

Chief considerations in pricing. 1. Initially, price appears to be on a suggested or full-cost basis. The company estimates parts prices according to national manuals (Motor's Crash Book Service or Glenn Mitchell Catalogue Service) which give

the manufacturers' suggested prices. Time ($4.00 per hour) is estimated in two ways: (1) from national time standards in the above books (this company can usually beat those standards), and (2) from experience. On body repair work, experience and judgment are the bases. The estimate is a guaranteed bid except for motor trouble that might not be seen at first.

2. Demand considerations are important. For example, the owner states that he arrived at the $4.00 per hour charge in this way: (1) It is the price charged by some of his competitors; (2) while other competitors charge $4.50, he wants to keep his rate down in order to win a sufficient number of bids. But he also mentions that his overhead costs are lower, so that it is not necessary to charge so much to cover costs.

Price differentials; variable markups. 1. The markup on parts is determined by the manufacturer, being the difference between the retail prices listed in the books already mentioned and the wholesale prices on the invoices. General Motors suggests a higher markup than other manufacturers, though not on all of its makes and not on all parts for each make. The markup on foreign car parts is low. The company gives an insurance company a 10 percent discount on parts (15 percent on Chevrolet).

2. There are ways of varying prices not obvious at first. For customers seeking competitive bids and watching estimates closely, the company avoids any frills. In times when business is off, management watches estimates more closely, especially if the firm can start on work at once. All this implies there are differentials but probably within a small range.

Further discussion of cost and demand considerations. 1. If the shop is full, the owner is liberal in his estimates (thus reflecting "opportunity costs," though this expression is not used). If there is idle capacity, the company does not go below full costs—instead it watches to make certain no unnecesary items go into the estimate. Flexibility is achieved by varying the number of extras to include in the job, for example, by painting scratches that otherwise might be neglected.

2. The firm can reduce costs by replacing with used parts (the insurance companies watch for this). This gives a higher markup and profit.

3. The elasticity of demand is an influence on some work. For example, one regular customer with a large number of vehicles gets more favorable bids to encourage repeat business; he is informed and can shift his business rapidly.

Market structure. There are several dozen competitors in the city, but only a few specializing in body repairs as this firm

does. There is differentiation of product by reputation and dependability. On jobs for insurance companies there is considerable competition in bidding.

The other three companies apply the same mechanics in pricing (reference to the national manuals on parts prices; the use of standard times from such manuals). They do not show such clear evidence of price discrimination or of full exploitation of demand differentials. In fact, these companies state that longrun goodwill considerations prevent the adjustment of price to temporary demand shifts or to differences in demand elasticities. It may be that the interviewing did not reveal the full picture on pricing; we are somewhat skeptical of all the denials of price discrimination. In the first case, the owner appeared to reveal his practices openly and frankly; this may not have been so true in the other three cases.

THREE OTHER REPAIR SERVICE COMPANIES

The interviews also included two shoe repair shops and one radio and television repair concern. These firms are extremely small, all with revenues at or below $50,000 per year.

The first shoe repair case appears to be one of the strongest demand-oriented cases. The owner gives little attention to cost in pricing.

Shoe Repair Company A

Description. A proprietorship that has been in existence for 42 years. The manager, who is the son-in-law of the founder-owner, is presently diversifying the business, chiefly by selling electrical appliances and new shoes. Only the shoe repair business is discussed here. Located in a town of 8,000.

Chief considerations in pricing. Demand is very important to the manager; he feels that his prices are as high as they can be. He repeatedly stated that people would stop having shoes repaired if his prices were any higher. (Apparently many of his customers buy shoes costing $7.00 or $8.00 a pair.) The firm has raised prices only once in the past eight years.

Price differentials; variable markups. Since costs have risen

differentially, the margin on some services is greater than that on others; this is not a result of an intentional policy.

Further discussion of cost and demand considerations. 1. The shoe repair business is looked upon partly as a drawing card for other types of business.

2. The manager considers demand highly elastic for upward price movements, completely inelastic for downward movements. His primary fear is substitution of purchases of new inexpensive shoes for the repair of old ones.

Market structure. There is one competitor in town, much smaller than this firm. The firm's market extends to smaller towns within a 15-20 mile radius, some of which have shoe repair shops. Probably it should be termed an imperfect oligopoly (prices are not uniform).

Other points. The owner is quite explicit about his desire to maximize profits, though pessimistic about his ability to increase profits through price changes.

The second shoe repair case will not be presented in full. It is a partnership in a larger city, facing competition from about ten other firms. The partners show no evidence of systematic thinking about pricing. They sometimes absorb cost increases, but they claim they do this to achieve price stability rather than because of competition. Whatever differentials in markup exist are apparently a result of differential cost changes rather than intentional policy. The owners claim that competitors' prices are ignored, yet investigation revealed that their prices are within the range of prices charged by competitors. The owners believe an increase or decrease in price of 15 percent would have little effect on volume; they also would not anticipate price reactions from competitors. When asked why they do not exploit this alleged inelasticity of demand, they replied that they believe in "live and let live." Thus, this case appears to be one in which the owners do not seek maximum profits but instead are content with a satisfactory income.

The fact that these partners are busy with routine work each day may help account for their inattention to price policy. Their profit aspirations seem to be low; they derive satisfaction from the work and service itself.

The last case in this section presents an interesting combination: a strong demand influence on price with little attention to cost, along with inflexibility in adjusting prices to particular jobs. There appear to be strong reasons for not adjusting the repair charges to the particular customer or even to the magnitude of the job. The case suggests that marginalism is not necessarily contradictory to a degree of inflexibility in price. On the other hand, the owner's statement that, if this were a full-time business, he would be forced to engage in price discrimination suggests that he is not now fully maximizing profits.

RADIO AND TELEVISION REPAIR COMPANY

Description. A proprietorship, the owner engaging in business on a part-time basis. The shop is in the basement of the owner's home. Located in a town of 8,000.

Chief considerations in pricing. 1. There are two prices for labor on television repairs: $3.00 per service call (if inside city limits; 10 cents a mile extra if outside) and a "bench charge" of $6.50 (the bench charge is for work done in the shop). These prices are only rarely modified. The bench charge is $6.50, whether the job takes 15 minutes or three hours. Prices for all other services are similarly fixed. Parts are priced according to a list by the manufacturers.

2. The owner says that these prices are as high as they can profitably be. This implies that demand and competition place a ceiling on price in that higher prices would result in longrun losses of goodwill and volume.

3. The owner says that charging by the hour leads to arguments and poor relations with customers. He prefers a flat rate, which he believes helps him maintain goodwill and obtain repeat business.

Price differentials; variable markups. A markup is not used. Profits vary among jobs of different lengths. The owner states that on a few occasions he has charged $7.50 for "bench time." On these occasions, the customer was rather wealthy.

Further discussion of cost and demand considerations. 1. The owner does not appear to be highly concerned with costs, either full or incremental, when he sets his rates.

2. The prices reflect the owner's view of demand. He stated several times that he could not "get any more" in such a small town. The usual kinked-demand theory is not ap-

plicable, since the owner does not know what competitors are charging, and he does not think they would react to changes in his prices.

Market structure. There are four or five competitors in town. The firm does business in a wider market, however, involving towns within a 15-20 mile radius of the firm's location. Probably this should be termed an imperfect oligopoly.

Other points. The owner states that, while it is a profitable sideline, radio and television repair is not a lucrative full-time business. He further states that, were he to engage in the business on a full-time basis, he would be forced to practice customer-wealth-determined price discrimination—a statement which appears somewhat inconsistent with his view that prices were as high as they could be.

THREE ENTERTAINMENT SERVICE COMPANIES

The next group of service companies consists of three firms in the entertainment business. One of the cases will be presented in detail, followed by brief discussions of the other two.

The first case, a bowling alley, shows a strong dependence on outside information in price decisions—even evidence of imitation of other firms; yet it is one of the clearest cases of careful marginalist reasoning. Interviews with the management suggest not only a strong desire to maximize profits, but also a thorough study of the market and the experiences of other firms. This firm is in a strong monopoly position, there being little likelihood of entry of a competitor in the limited market served by the bowling alley.

Bowling Alley

Description. A manufacturer of wooden parts which is going into a bowling alley subsidiary as a sideline business. Only bowling alley charges will be considered here. Located in a small industrial city.

Chief considerations in pricing. Since this is a new business, there has been no experience with costs or demand. The proposed rates (45 cents per line) are based on rates charged by high-priced alleys in similar small cities. Thus, there is considerable imitation in pricing. The assumption is that the revenue will be highest at this price. While the rates (prices)

are not based on costs, the firm would not have gone into this business without a prospect of revenues above cost. "We should pay off the entire investment in about nine years if our linage equals or falls slightly below the national average."

Price differentials; variable markups. 1. There has been no consideration of markup—no interest in unit cost, but instead in overall income-cost projections.

2. This firm does not differentiate in price between bowling leagues and individuals, as many other alleys do. It offers low rates—35 cents—for children only on Saturday morning and late afternoon of school days.

Further discussion of cost and demand considerations. 1. The managers have constructed break-even charts under several assumptions on costs and sales, giving an estimate of what volume will be necessary to earn profits. The company expects a volume that will provide $25,000 profits per year. It appears that the shortrun incremental cost is less than one-fourth of the incremental revenue (12 cents per line as compared with 56 cents per line—the latter includes revenue from shoe rentals, etc.). Losses would be high if the volume fell one-third below estimates.

2. While the management has not thought directly in terms of elasticity of demand, there is clear evidence of its influence. The management believes demand is inelastic up to a price of 45 cents. This is based on a thorough interview study of comparable alleys. It is also based on the prediction of no entry of competitors. The alley will be in a small city that probably will not support a second alley. Furthermore, there is no town within 40 miles large enough or with income high enough to support an alley.

Market structure. The firm expects to have a monopoly position, with little danger that new firms will enter. There is no fear of retaliation.

Other points. 1. The company has been influenced in setting rates by the equipment supplier, who recommended the 45-cent rate. Two of the surveyed companies increased their rates from 35 cents to 40 cents in 1959 and said they both could just as well have gone to 45 cents.

2. The owners recognize uncertainty. "The main unknown quantities are how much business we can generate and how well we have estimated costs."

The second company is a large moving picture theater in a city of 20,000. The owners believe that their present prices

of 65 cents for adults and 25 cents for children are optimum. They believe demand would be elastic to price increases but inelastic to price decreases, but they do not give the fear of retaliation as the reason. (This point receives considerable attention in Chapter 5 of this volume.) Thus demand appears to be the overwhelmingly important influence on pricing. Costs are difficult to evaluate; the building would be valueless in any other business. Incremental costs are undoubtedly low, consisting of film rentals (a flat fee or a percentage of receipts), popcorn, and little else. This company is in a semimonopoly position, there being no other theaters in the city, but there is competition from drive-in movies and television.

The third company was only three weeks old at the time of the interviews. It is an outdoor trampoline center. Like the bowling alley case, this one illustrates imitative pricing. The owner found that companies in other cities were successfully charging 50 cents per person per half hour. Costs are difficult to evaluate because of the great uncertainty about how long this fad will be popular and how rapidly competitors will enter the field.

FOUR MISCELLANEOUS SERVICE COMPANIES

The first case in this group is of special interest. It illustrates more clearly than any other case in this study how the management uses the process of trial and error to approach optimum prices. Interviews with the management of this company leave little doubt that the owners do in fact approximate closely the prices providing maximum profits. The case also illustrates the importance of the personalities and objectives of the owners in pricing; similar companies nearby earn lower profits largely because their managements are less aggressive in their pricing practices.

Billboard Company

Description. A partnership owning standard-size billboard panels in several small towns (population 5,000-15,000). Man-

aged on a part-time basis by the partners with no permanent employees.

Chief considerations in pricing. The interviewee was vague on the relative role of demand and costs, but indicated clearly that this was not a full-cost and markup situation. In fact, the company appears to be highly successful in approaching maximum profits through trial and error in pricing; the firm raises prices until it sees clear evidence that volume is seriously affected. As a result, the rates quoted by this company are higher than in most similar towns where management is less aggressive in achieving maximum profits. While the owners speak of pricing by "rule of thumb" or by "the seat of the pants," they seem to be quite successful in reaching an optimum position by these trial-and-error methods.

Price differentials; variable markups. 1. The firm does not allocate costs to single billboards, but concentrates on overall performance.

2. The firm charges everyone the same rate, probably because of the fear of loss of goodwill if price discrimination were discovered by the customers.

Further discussion of cost and demand considerations. 1. The incremental costs are so low in the short run that they are irrelevant—if the firm maximizes revenue, it roughly maximizes profits. The low level of incremental costs permits concentration on demand factors.

2. Apparently, though the management does not use the expression "elasticity," it considers demand inelastic up to prevalent rates for the following reasons: (1) Advertising agencies are not much interested in holding down costs and thus are not sensitive to rate changes; (2) advertisers plan their volume of advertising with little reference to rates, so that they are unlikely to curtail the number of ads because of high rates in some towns. One advertiser does give trouble and helps set a ceiling on rates by threatening to withdraw business if rates are too high, but it is the exception.

Market structure. There are no other firms in these towns. There is little danger of entry because of the difficulty of attracting accounts from the established companies.

Other points. The personalities of two partners are important. They are interested in making money and apparently are in harmony on the trial-and-error approach to raising rates.

The next firm, a truck-leasing company, is one of the few cases of a follower of price leadership in this study, and even

it is not so clear an illustration as one finds in large business. The firm appears at first to follow price changes of its leading competitors, after deducting 10 percent. The firm's costs are difficult to define, so that cost seems to play a secondary role in pricing. But six months after the initial interview the firm had moved to new quarters, where costs were higher. This put a squeeze on the company's expected profits and led to an increase in prices that did not follow the 10 percent rule. At the same time the management expected its competitors to raise prices soon because of creeping inflation. Perhaps the firm was at this time acting as a barometric price leader rather than a price follower.

An illustration of unsystematic price followership is that of a small drycleaner in a large city. This firm also finds it difficult to estimate its costs. It sets its prices midway between those of the high-priced and low-priced plants. However, the firm does not imitate its big competitors in offering "specials." It faces over one hundred competitors, while the truck-leasing firm faces only ten, some of which are not really competing directly in its type of business. Thus this inexact type of price followership does not seem to be related in a precise way to the number of firms in the market.

The last firm in this category is a laundry—one facing competition from 20 or 30 other laundries. The owner-manager is one of the few in this study to express his objectives in terms of a "target" return. He stated that his policy was to achieve a 5 percent net profit on sales. (Note that the target is expressed in terms of profit on sales rather than on investment, the latter being more usual in big business.) This firm maintains a price schedule about 10 percent above that of its competitors. The owner spoke in terms of "what the traffic would bear." Apparently the public is not fully informed about these price differences; also the firm provides more extra services than its competitors and has a reputation for quality. The firm is willing to cut price to full cost (but not below) on off-season

business, such as motel business in the summer. It also offers a low "family bundle" price, which is "less profitable" than the remaining business; this service draws more profitable business into the firm. This type of price differential is common in the industry.

This laundry is very conscious of the longrun impacts of price change. The management believes it could raise prices profitably in the short run, but that this would lead to a gradual deterioration of business. It does not believe that reduced prices would be profitable, but it is not concerned with price retaliation. The managers, like many others in this study, do not appear to have given much systematic thought to pricing.

SEVEN CONTRACTORS

A *common* thread runs through the seven cases on contractors. All of them appear at first to be cost oriented, starting with cost and adding predetermined markups. But a closer examination shows that demand is important in determining (in some cases) how much to charge different customers or (in other cases) how much to vary price according to seasonal or cyclical changes in business. At the same time there are considerable differences in the behavior of these firms. Two of them are members of a cartel, so that the demand-oriented flexibility in price is limited to certain repair jobs not controlled by the cartel.

Contractor A (Home Builder)

Description. A contractor building six or seven medium- to high-price homes per year. He subcontracts much of the work to other firms, but he hires his own carpenters. Employees vary from one to five. Located in a city of 50,000 to 100,000.

Chief considerations in pricing. 1. There are two pricing situations. (1) *Bidding on a house to be constructed in the future*: The contractor bids on a cost basis (modified by demand, as will be indicated). He asks more on these bids than on a finished house, because the customer might ask for changes that would take more of his time. He very definitely considers

his time to be a cost. (2) *Pricing a house already built or partially completed* (70 percent of his business): Prices are on a cost basis (except for modifications to be indicated). He includes his own time as a cost rather than applying a percentage markup.

2. This contractor does not price on a square-footage basis, as do many other builders. This does not reflect differences in costs of fixtures, his own time, etc. Instead he prepares a detailed record or estimate of actual costs.

Price differentials; variable markups. 1. The charges for the contractor's time vary with business conditions and the weather.

2. In bad times, such as 1957, he reduces price to get his money back, to help finance additional houses. In 1957 he had two houses for over a year before selling them—and shaded price to do so. He refrains from building new houses until he has sold ones already built. This exerts a pressure to reduce prices. But he stays out of debt and thus is not under as extreme pressure to sell as some of his competitors.

3. He bids lower on houses to be built in the winter, for several reasons: (1) His time is not so valuable then, because building activity is off; (2) he wants to hold his men (carpenters primarily) together so that they will be available the rest of the year. He bids partly on the basis of personality of customers. If they appear to be demanding, he recognizes the added costs of meeting their demands in his bids.

Further discussion of cost and demand considerations. 1. Since almost all of his costs are incremental, except depreciation on his equipment and the costs of his own time, he does not make a clear distinction in his mind between incremental and sunk costs. But his willingness to reduce price in bad times or winter might be taken as a reflection of incremental reasoning.

2. The charge for his time is evidence of the application of the opportunity costs concept. For example, he bid rather high on one proposed house because he knew it would take a large amount of his personal time and would keep him from doing other jobs. His reduction of these charges for his time in winter and in bad times is a reflection of the fact that opportunity costs are lower then.

3. His costs vary with general demand conditions. His nonunion labor is cheaper in winter and in bad times. He takes this into account in pricing.

4. Apparently he makes little distinction between the elasticities of demand of different customers, but is more concerned with the differences in costs they might occasion.

5. He does sometimes shade price for a customer who has cash. This cuts down on the red tape and reduces the risk of delays in loan negotiations.

6. In pricing houses already built, he takes into account prices of comparable houses and sometimes adjusts his price accordingly. He tries to avoid building a house too expensive for its neighborhood.

7. One way he shades price, if demand conditions require it, is by offering to do added work without charge.

Market structure. This is a very small builder with several dozen competitors. There is probably little direct retaliation to price change partly because of noncomparability of products and devices for secrecy in shading prices. The owner is influenced in setting his prices by the prices of others. There is some differentiation in product because of reputations for quality, differences in appearance of houses, and the personality of the builder. This contractor sells some houses through real estate agents and others directly. Sometimes he shades price when real estate commission is avoided.

Contractors B and C (both electrical contractors) are more specialized. Contractor B does electrical work in residences and small commercial establishments. He also thinks in terms of cost-plus. But he varies his markup according to the class of business (higher charges for residential rewiring). He shades prices to attract large volume work and is very flexible in prices on commercial and industrial work. He is influenced by "standard charges" generally asked by his competitors on some classes of work.

Contractor C operates either on a cost-plus basis or on a predetermined rate per outlet or per foot of wiring. He shades prices when business is off (a demand factor). He also shades prices on jobs near his office because of ease in supervision (a cost factor). One reason for shading prices in bad times is to hold the work force together (a consideration mentioned by other firms). Despite the admission of such considerations, the management resents the low prices of some competitors and claims that it does not reduce price below labor plus materials plus 10 percent. The normal price is labor plus materials plus 10 percent for

overhead plus 15 percent for profit. Some customers are regular; prices for them are negotiated and the 15 percent profit is almost always earned. But about 40 percent of the work is on a bidding basis and is quite competitive.

The next two firms are cement contractors, both belonging to the same cartel arrangement and thus subject to less strong competitive pressures. Because of the similarity of the two cases, only one is presented here. Both firms show some reluctance to vary margins even on noncartel work; this is especially true of Contractor E, who is not discussed in detail. The cartel arrangement quite clearly prevents the degree of price flexibility illustrated in the other cases.

CONTRACTOR D

Description. A concrete contractor in a medium-size city in the East. Two-thirds of the business comes from builders; the remainder, from homeowners.

Chief consideration in pricing. 1. Cost is the most important element in setting prices. There is some demand-induced variation in quoted prices: When the firm is very busy, it quotes higher prices to homeowners; when its business is very bad, it quotes lower prices.

2. The work for builders is usually priced on a straight full-cost basis, governed by a cartel arrangement.

3. This firm and four others jointly present price lists to builders. The joint action extends only to "new work" done for builders. The firms meet periodically to review prices and costs and to make adjustments if they seem desirable.

Price differentials; variable markups. The chief instance of variable markup for homeowners is the firm's policy of lowering its markup on very large jobs; beyond the "normal-size" job the markup varies inversely with the size of the job. The firm is also willing to cut its margin when business is slow.

Further discussion of cost and demand considerations. 1. The firm seeks to quote prices which cover full costs even when business is bad, but there is a reluctant willingness to go below full costs on small jobs in slack periods, primarily to keep employees busy.

2. Probably demand is more elastic on the larger homeowner jobs, thus helping account for the lower markups on such jobs. More bids are sought on the larger jobs, and thus the market is more competitive.

Market structure. The firm does business in two types of markets: In its work for contractors, it is a member of a cartel; in other types of work (most of which is repair work for homeowners) there is very keen competition, especially from small, one-man firms. The firm has let the latter type of business suffer rather than meet the competition from the small firms.

Other points. 1. The difficulty of getting good concrete finishers is one factor tending to limit expansion of firms in this industry. The need to provide continuous employment for finishers makes even more surprising the reluctance of the firm to price below full costs. The owner prefers to have his men work on maintenance duties around the shop.

2. The cartel's prices to contractors are about 15 percent higher than those of its competitors. It seems that this is possible because the members do exceptionally good work.

3. The firm gets a profit and loss statement every six months; if a price adjustment seems necessary, a meeting of the cartel considers the situation.

Contractor F engages in a more diversified business. The somewhat flexible policies of this contractor, including price discrimination and the adjustment of price to shifts in demand over time, suggest an intensive striving for profits. But the owner's statements contradict this, and there are strong reasons (because of the close relationship of one researcher to this manager) for accepting these statements. Perhaps we can say that he does vary prices to increase his profits, but he does not push this practice as far as possible.

CONTRACTOR F (GENERAL CONTRACTOR)

Description. A contractor doing painting, roofing, paperhanging, and house repairs, and building garages and additions to houses. A one-man firm, with one employee in summers, none in the winter. The firm was established in 1948. Located in a large city.

Chief considerations in pricing. Both cost and demand are important in pricing. Prices for the various services are arrived at in different ways.

1. General repair work on buildings is usually priced on a time and materials basis. The labor (time) charge is usually higher in the summer, when business is good, than in the winter. Markup on materials is also varied somewhat, chiefly wealth-induced price discrimination.

2. For most other services, there are more or less standard rates (so much per square foot for building and painting, so much per roll for papering, etc.). Departures from these rates arise from both cost and demand considerations: the difficulty of getting to the job, the amount of preparation necessary, the wealth (and willingness to spend) of the customer, and the amount of business on hand. The demand-induced departures should not be overemphasized, either in frequency or degree.

Price differentials; variable markups. There is some price discrimination, within rather narrow limits, and some seasonal price variation. The importance of the latter cannot be stated precisely, because there is no policy on variation. It is usually difficult to know if it is necessary to quote lower prices in slack times, and this firm seems to prefer a lower chance of getting a contract at the "standard" price to a better chance of getting it at a lower price.

Further discussion of cost and demand considerations. 1. The management is cognizant of the opportunity cost of forgoing more profitable work if its resources are tied up in work which is less than normally profitable.

2. Both the amount and elasticity of demand are considered. More attention is paid to longrun than shortrun demand. This firm considers longrun demand to be highly elastic, even for established customers, and does not take full advantage of the strong demand in summers. (Jobs are turned down in the summer due to lack of time.) The firm depends on regular customers and does not want to get a reputation for high prices.

Market structure. Competition is very keen in all the services performed by this firm. There is some product differentiation arising from quality differences.

Other points. 1. The owner is not a venturesome entrepreneur. His chief considerations are the independence gained by "being his own boss" and a strong sense of achievement in doing good work. (He loses money on a job rather than do shoddy work.) He is a self-employed tradesman rather than a businessman.

2. The upward departures from "standard" prices are a means of making up for lost profits on jobs that were more costly than estimated; otherwise, the owner has ethical objections to price discrimination.

Contractor G is engaged in air-conditioning and sheet-metal work. The firm's pricing procedure is to estimate materials and labor costs, and add a percentage for overhead (based

on the estimated ratio of overhead to total costs for the year) and another percentage for profit. The firm varies the profit markup to meet competition in bidding, but claims never to go below full cost. Some flexibility in full cost arises from the willingness of the owners-managers to cut their salaries when business is off. One of the two owners regrets not going below full cost on a large job last year, recognizing that the added revenue would have greatly exceeded incremental costs. But in general both owners favor maintaining full cost as a floor under price. This same firm seeks some work on a quality, dependability, and selling effort basis, recognizing that there are always some competitors who will underbid them on certain classes of business. So this is another case of flexibility in pricing, limited by the unwillingness of the owners to extend that flexibility outside the full-cost limits.

SEVEN HARDWARE STORES

It is sometimes stated that hardware stores apply a 50 percent markup on cost; this is a traditional markup in the industry. Critics of pricing practices in this segment of retailing have attacked the rigid application of the same markup to one item after another. They have argued for more flexible markups to take advantage of varying market and cost conditions. In the last two or three years there has been considerable publicity favoring more flexible pricing practices in hardware retailing.

Even though the stores covered by this study are located in small cities and towns and are relatively small operations, not a single one of them adheres to a strict policy of cost plus a rigid markup. All of them adjust markups to some extent to demand conditions and turnover considerations.

Hardware Store A

Description. A hardware store dealing in general hardware, toys, sporting goods, and paint. A partnership in a city of 100,000 population.

Chief considerations in pricing. 1. Wholesale cost is the basis for pricing but a constant markup is not used. There is evidence that differences in demand influence the pricing of individual items. On those items on which competition is with grocery stores and drugstores, the firm meets competitive prices in order to create a favorable image in the mind of the public.

2. Quality is depended on to make demand somewhat less elastic. A drugstore stands directly across the street, but many people who want better quality go from the drugstore to the hardware store. Another differentiating factor is advice on use of the product (paint, for example).

Price differentials; variable markups. 1. High turnover, highly competitive items carry a low markup (*Spic & Span* at 2 cents above wholesale cost). Low turnover items carry a higher markup.

2. Prepriced and suggested price items are sold at the marked price.

3. High-selling time items carry a high markup. Paint (requiring a high explanation time) is priced on a 40-50 percent markup on selling price.

4. When the store gets a good buy, it sells at the usual price, leaving a higher than normal markup.

Market structure. There is stiff competition from groceries and drugstores in the neighborhood on some items. Also, there is another hardware store only a block away.

Other points. 1. In order to meet competitor's prices, the firm buys from a cooperative wholesaler. This cooperative has no salesmen (sells through catalog) and only relatively large stores can join. Also, the retailer receives a percentage refund on purchases over a certain amount. Thus, because of low expenses and a refund arrangement, the retailer can get lower wholesale prices than he would from a conventional jobber.

2. The firm would like to see more fair-trade items.

3. The firm makes no attempt to apportion fixed costs to determine the percentage markup necessary to cover full costs. But the management does prepare a monthly income statement. It is possible to see at frequent intervals whether markups are sufficient.

4. Price lining is used and is considered important. The cooperative mentioned earlier provides helpful advice.

5. The firm does not have storewide sales. Three times a year, it has sales on certain items. Prices for these specials are never below wholesale cost. These sales increase traffic and enable the firm to sell many items not on sale.

6. The firm infrequently goes below wholesale cost if necessary to sell obsolete or seasonal items. In most cases, however, it is not necessary to do so.

7. A special order service is provided for customers on items not stocked. The markup is around 50 percent plus postage and handling.

Hardware store A thus illustrates flexibility of markups to meet both varying demand and cost conditions. This is also true of the others, which will receive less attention.

HARDWARE STORE B

The management charges a higher markup on sporting goods during the season, with drastic reductions at the end of the season. It gives a 10 percent discount to contractors. Like the previous store, this one applies lower markups on high-turnover items.

HARDWARE STORE C

The management of this store follows the general rule of a 50 percent markup on cost, but varies this markup according to market conditions. It also applies a lower markup on high-turnover items. The firm has semiannual sales at which it reduces some prices to wholesale cost. The management would like to see more prepriced items, with less scope for price competition.

HARDWARE STORE D

The markup percentages are lower (25 percent on cost and even less) on large appliances because of the high dollar markup that results. The firm sometimes breaks away from suggested list prices and takes part in price cutting, partly as a result of similar action by competitors. The owner applies what he calls "magic prices"—for example, he thinks a price of 88 cents has a special appeal to the public.

HARDWARE STORE E

This store goes as high as a 100 percent markup on cost on some low-turnover items and as low as 30 percent on highly competitive, high-turnover items (such as electric plugs). The owner has kept down the price of some high-turnover items, such as "BB's" (despite increases in wholesale cost), and has noticed a great increase in the quantity of sales. Such action indicates that he has gained some insight in price elasticities

by trial and error. He also stresses nonprice competition, such as delivery, credit, and trading stamps. He sends an employee out to do comparative shopping and adjusts some prices if they are out of line with competition. He has shifted to some lower quality items, because competition from such items elsewhere was hurting his business.

Details on the remaining two stores would be redundant. The majority of the stores are familiar with and probably influenced by the recommendations of the National Retail Hardware Association on the adjustment of markups to different classes of business. In some localities there are complaints about price cutting and a desire for more widespread prepricing of items by manufacturers. Some of the managers emphasize longrun considerations in pricing, refraining from taking advantage of shortrun demand differences in order to build up images of "fair" pricing.

THREE GIFT SHOPS

Gift shops are closely related to the hardware stores previously discussed, offering a wide variety of products in a relatively small space. These shops are smaller than the hardware stores. The first case is one of fairly mechanical pricing procedures: adherence to prices suggested by wholesalers and manufacturers or application of a definite markup to wholesale cost. There is no doubt that the personality of the owner is a primary influence in accounting for this mechanical approach to pricing. She is not one to experiment with prices. She has definite ethical objections to gouging the public, along with strong feelings that in the long run this would be bad business. She believes that the way to make profits is through careful management: maintenance of a complete inventory, establishment of a reputation for quality and dependability, treatment of customers as individuals, liberal credit practices, etc. Some customers go to this store first because it is known to be "in stock."

GIFT SHOP A

Description. Sells gifts, cards, dry goods, and locally prepared foods. One or two employees in addition to the owner-manager. Located in a town of 6,000 population.

Chief considerations in pricing. The owner prices on one of three bases:

1. Markup on wholesale cost (50 percent on some items and 100 percent on others).

2. Suggested price of manufacturer or wholesaler, which usually provides similar markups to No. 1. (In some cases the wholesaler lists the items at suggested retail price and then deducts 50 percent.)

3. Twenty percent commission on selling price, applied to food items prepared by local women.

Price differentials; variable markups. There are three main markup categories:

1. "Competitive lines"—low-priced items with a high turnover, such as household goods and inexpensive linens and gifts. The markup on these is around 50 percent on wholesale cost. Apparently demand is more elastic on these items because of close competition.

2. High-priced items with a markup of 100 percent or somewhat less, such as china, glass, linens on which competition is less severe, and also greeting cards (which have a suggested retail price).

3. Prepared food on which the store takes a commission of 20 percent of retail price (25 percent markup on cost). The individual housewives preparing these foods determine price—not the store. But the store recommends this formula: Double the cost of ingredients and fuel to arrive at price before the commission. In some cases, when the item takes a great deal of work, there is more than a doubling of ingredient cost.

Further discussion of cost and demand considerations. 1. The owner is very inflexible about varying from these markups on cost. She has never marked down a greeting card. There are no special sales at any time of the year, though occasionally she will "give someone a price" on an item that had been sitting on the shelves.

2. It would appear that the low markup on prepared foods involves incremental reasoning. One other store abandoned this line because of low markup—it was not making money when the overhead was counted in. But prepared foods involve no inventory risk (if the item doesn't sell, it goes back to the person preparing it); they require no transportation costs; and

they draw people into the store, in this way helping sell other items.

Market structure. There are five or six competitors on low price items (variety stores and drugstores). There is some competition from stores in a nearby city of 100,000.

On a few items—napkins, paper cups, cheap stationery—the store follows the price set by variety stores (an example of price leadership).

Other points. The kinked-demand theory is not fully applicable. The owner believes she will lose business rapidly if she raises price (gets a reputation for high prices), but she does not fear retaliation if she reduces. She resists reduction because she believes that this would put price below cost and probably also because she believes the demand would be inelastic to price reductions.

This shop has been sold to new owners, who have changed some pricing practices, a clear indication that the personality and attitudes of management have an influence on pricing. The new owners are more flexible. They put on special sales. The old owner feels that this is damaging the business, helping account for the lower profits that are being earned. She also believes that the new owners are careless about inventory, stocking some items that will not sell and putting on special sale items that will have to be replaced at once.

The second gift shop sells a higher proportion of prepriced items. The owner follows a policy of a fairly rigid 50 percent markup on cost but does reduce price to move out old stock. In general the policy is one of letting outside agencies determine the prices. Thus, this case is similar to the first one in that little internal judgment is applied to the evaluation of pricing.

The last store in this group is larger and handles a greater variety of items. Its pricing policies are quite like those of the other two stores, except for a greater tendency to specials, in which there may be substantial price reductions. The management of this store does fear retaliation to reduced prices. It refrains from full exploitation of differences of demand because of the longrun effects this might have on the "store image."

FOUR DEPARTMENT STORES AND DEPARTMENTALIZED SPECIALTY STORES

Three cases in this section are presented in detail, since each presents a different pattern. They illustrate variations in the pricing behavior of retailers, each adopting policies that involve an adjustment to its environment. In the first store, the only department store in the strict sense, the management adopts a flexible pricing policy aimed at high-volume sales of medium-quality merchandise. The management of the second store, a departmentalized specialty store, aims at a higher income market. Its merchandise mix and pricing reflect a desire to maintain a "store image" based on quality. Unlike the management of the first store, this one prefers to avoid pricing decisions, placing much greater stress on prepriced items.

While these first two stores are probably striving for higher profits, in their own ways, the third store clearly is not. It is the best instance in the whole study of restraint in profit seeking. In a sense, because it is owned by a small college, it has placed itself in a public utilities category, with self-regulation of profits.

Store A (A Department Store)

Description. Annual sales of $3 million. The merchandise ranges from candies to ready-to-wear, home furnishings, and heavy appliances. Located in a city over 100,000.

Chief considerations in pricing. 1. Markups on wholesale cost are used to determine price; these markups vary with departments and with types of merchandise. Price lines have been developed, and the store buyers attempt to buy merchandise which fits into these price lines, but which yields an adequate markup. The price lines are set at the low-middle range (this fits into the image of low-price, medium-quality department store).

2. Markdowns are taken on items that do not move. The markdown is often down to the range between direct cost and wholesale price.

3. Demand is the principal determinant of prices. The store management attempts to set price at a level that

generates volume. Even on price-line items the management moves them into lower price lines if the volume is unsatisfactory at higher prices. There is thus considerable flexibility and experimentation in pricing. For example, heavy appliances sell at a yearend gross margin of 18 percent, which is considerably below the national average.

4. In a few cases, the store follows the manufacturer's suggested price; the management of this store desires to make pricing decisions on all items, but does carry nationally price-advertised lines to fill out the store's offerings.

5. Unlike most of the smaller stores studied so far, this store adjusts prices continuously, not waiting for a yearend sale.

Price differentials; variable markups. 1. The markup does vary among items. There are certain industry-wide "normal" markups on items. These markups are guides rather than absolutes. Price lining and price flexibility make it impossible to get a normal markup on each item.

2. The store uses loss leaders and bargain counters to attract customers.

3. In some cases prices are based on what the "market will bear," apparently placing shortrun profit considerations ahead of possible longer run effects.

Market structure. 1. The store competes with department, shoe, men's clothing, women's clothing, furniture, and appliance outlets.

2. The store attempts to maintain a reputation as the one-stop store with competitive prices. The offering in each line is restricted, yet by diversification it can attract a variety of customers.

STORE B (A DEPARTMENTALIZED SPECIALTY STORE)

Description. A medium-high price store. Annual sales of about $1 million. Located in a city of over 100,000.

Chief considerations in pricing. 1. Nationally advertised brands are carried in the store (about 40 percent of the total), and on these items no pricing decision develops. The manufacturers' suggested prices permit normal markups.

2. This store apparently prefers to avoid pricing decisions. It can do this part of the time by stocking prepriced items.

3. On those lines of merchandise on which a pricing decision is made, the target markup is about 40 percent of retail, although this may vary with the various items.

4. On some items which are unique in some feature, an analysis is made which attempts to identify variable costs of

the item. This was done in the case of glassware from West Virginia. But this did not influence price—rather it influenced the decision whether to stock the item.

5. The store stocks merchandise which coincides with the established high-price lines. Probably the demand is inelastic, since customers anticipate high prices. In other words a "store image" has been created on the basis of quality merchandise, pleasant surroundings, and a fashionable atmosphere, and this "image" permits high prices.

Price differentials; variable markups. 1. There are variable markups on women's dresses. The high-price dresses have a higher markup than do less expensive lines, compensating for low volume.

2. High-price dresses are not marked down as drastically as lower price dresses. The reason given by management is that a markdown from $175 to $150 or even $125 will not penetrate a new segment of the market.

3. In many cases pricing is based on what the "market will bear."

Market structure. 1. The store is most directly engaged in competition with one other fashionable department store and several smaller fashion shops for women.

2. Nonprice competition appears to outweigh price cutting. Semiannual sales are the only specials run by this store. The store does not use loss leaders.

STORE C (A DEPARTMENTALIZED COLLEGE STORE)

Description. A small, college-owned department store (4 departments) with annual sales of about $325,000. A low-profit operation. Located in a town under 10,000.

Chief considerations in pricing. An average margin for each department is achieved, but demand and turnover are taken into account on individual items. The average target margin is based on a budget which shows the anticipated volume of business and the expected expenses necessary to handle that volume. From the budget is calculated an average overhead percentage. Based on this percentage, a margin is determined which will cover overhead and allow a net profit. Then, each department is given a margin to maintain which, when considered with each department's volume, results in the storewide desired margin. An internal control is used to check on average margin for each department weekly.

This system means that if volume goes up, the average margin required would decrease. But this is true only within

limits. For example, if the anticipated volume goes down considerably, an employee would probably be released to decrease expenses and make an increase in price less necessary.

Price differentials; variable markups. 1. A constant 13.6 percent markup on selling price is used for both new and used books. The cost of new books is 80 percent of list price, but the store sells below list. The cost of used books is 50 percent of the new book list price. The store does not buy all used books—only those which are to be reused. At present, the margin on books does not cover average overhead (15½ percent of revenue). The manager's reason for this is: "If I am going to give students a break on anything, why not do it on something they must have?"

2. On everything else the margin is variable. Demand, past experience, and competitive conditions determine the margin. Coffee, for example, is priced on a 3-5 percent margin because the quantity demanded would drop rapidly at any higher price. However, turnover may still make the item profitable.

Further discussion of cost and demand considerations. 1. Demand is very elastic in groceries and almost perfectly inelastic in books. The margins are influenced by such differences in demand elasticity (except on books).

2. The management sets fairly high margins on some items to compensate for the low margin on books.

3. Occasionally the grocery department makes a market survey. Several staple items are compared with the same items in stores in the same and adjacent towns. The form used for the survey lists items horizontally and stores vertically. The surveyor obtains the prices for each store of all the items listed. Two totals are obtained: the total of all items for each store and total of all stores for each item. Totals by store give a good idea as to how the overall pricing compares. Totals by item divided by number of stores give average prices for items and show whether the college store's individual prices are out of line with those of other stores. The objective is usually to keep the prices in line with those in other stores.

Market structure. The competition is keen on clothing, school supplies, and groceries, but not on textbooks. On books probably no one else could compete because of the low margin.

Other points. The store has a target net profit of approximately 2½ percent on sales. This is determined by the college. The rate of return on the investment which the college has in the store is more than the college's average return on investment. Thus the 2½ percent net profit is all the college desires.

The fourth store does not require such a detailed presentation. It is a department store catering to a low-income market that is highly price-conscious. This store specializes in "irregulars" (nationally advertised items with small flaws). The store faces keen price competition from other, smaller stores in its location and thus finds it necessary to operate at a low gross margin of 32 percent (national average 36.4 percent).[2]

FIVE MEN'S CLOTHING STORES

The preceding section suggests a hypothesis that stores catering to low-income or medium-income customers pay more attention to price policy and are more flexible in pricing. The five cases of men's stores support this hypothesis. The first store is one dealing with the lower-middle income market. As the detailed summary shows, the management has continually experimented with pricing and, in addition, has shown flexibility and imagination in nonprice competition.

Men's Store A

Description. A locally owned men and boys' wear shop. In five years the store went from bankruptcy to a $12,000 profit on approximately $400,000 sales under a new owner. The store emphasizes price competition and volume; it caters to middle-income and college trade. Not a member of the local men's clothing association in the city of over 100,000 where it is located.

Chief considerations in pricing. 1. Throughout the season, the store experiments with various measures which emphasize price savings. For example, a full wardrobe regularly selling at $189 is advertised at $149.

2. The owner emphasizes that he has no ethical feelings about "charging what the traffic will bear." His markups on suits vary from 40 percent on retail price to 60 percent on retail price.

[2] Malcolm P. McNair, *Operating Results of Department and Specialty Stores,* Harvard Graduate School of Business Administration, Bulletin 157 (Cambridge, Mass.: Harvard University Press, 1959), p. 2.

3. The owner readily admits selling a nationally advertised line at less than the advertised price to create volume. This practice caused a competitor to complain to the manufacturer. But most items are not prepriced.

4. On many occasions, ties, socks, etc. are advertised at prices less than cost to get volume and possible sales of other items.

5. The store always has a sale going on some items.

Price differentials; variable markups. 1. Variable markups are used on similar items in a price line, and also as between price lines.

2. The owner tries to maintain an average 40 percent markup on price, although in previous years he was down to 36 percent. In these years, losses were sustained.

3. The owner has experimented with special discounts for students who purchase above a certain volume. But now that he is making money, he plans to become more conservative.

Further discussion of cost and demand considerations. 1. The owner states that his advertising was 4-5 percent higher (as percentage of sales) than that of comparable stores. He states that the cost of extensive advertising was more than offset by additional profits. Now that "satisfactory profits" (owner's words) have been realized, the advertising is being cut back and rigidly budgeted at 3 percent of sales.

2. The owner considers demand (at least that segment to which the store caters) to be quite elastic. He engages in aggressive advertising which emphasizes the price advantage offered by the store.

Market structure. There are seven or eight other men's stores in the market. The management believes it has developed a special market of its own. But it faces competition from low-price stores on one side and quality stores on the other.

The second store serves an even lower income market. It follows the suppliers' suggestions on price to begin with, but it adjusts price upward or downward as the season progresses. One aim in pricing apparently is to remain competitive with other stores selling to this low-price market.

The next two stores (stores C and D) deal with a higher income market. Their markups are relatively high (on suits, coats, etc., one sets the markup at 46 percent, the other at 42-43 percent on selling price). Their markups vary on other items, such as shirts, vests, ties, etc. Both

stores engage in special sales on predetermined days but are opposed to flexible pricing during the rest of the year. In fact, both have ethical objections to the price flexibility of competing stores. Managers of the two stores consider both demand and cost in setting their markups. They believe that their customers accept relatively high prices (their demand is relatively inelastic); they also believe that their higher servicing costs (expert tailoring, pressing, free delivery) justify such prices. One of the managers examines the lines of suits shown by salesmen and selects those he thinks fit into his merchandise line, without at first considering wholesale cost. Then he asks for the wholesale price, adds his customary markup (46 percent on retail), and decides whether the price is too high to justify stocking the item. Neither store has applied much detailed analysis in pricing nor does either experiment to get more information on market conditions. Neither store is interested in price-stimulated volume. Each instead desires to maintain an "image" that will attract customers seeking quality.

The last store has in the past dealt with a quality-conscious market similar to that of the stores just discussed. It has followed the pattern of pricing in those stores. But the store is opening up a new basement department with lower price suits. The management hopes to maintain its high quality reputation on the main floor while at the same time it taps a new market with its basement store. It remains to be seen whether the store will adopt a more flexible pricing policy in this new department, in line with the suggested hypothesis.

EIGHT MISCELLANEOUS RETAILERS

The retailers in this group repeat patterns already discussed, so that each requires only a brief presentation.

Bookstore

This bookstore is privately owned. It serves an adjacent university. Its prices on new textbooks are the publisher's list

prices, allowing a 20 percent markup on retail price. On used textbooks, the store buys at about 50 percent of this list price and sells at 75 percent, providing a considerably higher markup. On used textbooks not required locally, the buying and selling prices are more variable.

The store carries other items—supplies, cosmetics, greeting cards, paperback books, etc. Frequently the suggested price applies. The markups vary from 20 to 50 percent of retail price. The store discriminates in favor of faculty members by giving them a 10 percent discount. The store's policies are very much like those of its major competitor.

FOODSHOP

This neighborhood grocery store is located in a large city. The prices are determined by applying a percentage markup to wholesale cost. But the markups vary from one class of groceries to another, depending on both cost and demand considerations. Markups on high turnover staples are low (10 percent); here competition is a major force preventing higher prices. Markups on produce are high (30-40 percent), partly because of high spoilage costs. Some items are prepriced, allowing usually a 33 percent markup. The owner relies on nonprice competition (delivery, credit, and other services) to meet the challenge of the chain stores' lower prices.

FLOWER SHOP

This shop prices its flowers at a 200 percent markup on the *average* wholesale cost. It does not vary price with each change in wholesale cost, but tries to stabilize prices over time. This follows the general practice of the industry—the management is content to follow outside suggestions on pricing. The other items are prepriced or prices are suggested by the suppliers. Thus the owner uses very little personal initiative in pricing. The owner believes that stability of prices contributes to customer goodwill.

DRUGSTORE

This store sells three categories of items: (1) those that are prepriced or fair-traded; (2) those on which there is a markup which varies from one class of items to another; and (3) prescriptions for which there is a professional fee in addition to the markup of 40 percent on retail price. The professional fee is normally at least 65 cents, but for prescriptions that take longer to fill, the charge is based on time (10 cents per minute). Markups are sometimes lower on large

quantities or expensive items. Sometimes there is price discrimination on prescriptions in favor of low-income families. The manager suspects that his soda fountain does not make money, but it helps pull in traffic.

SHOESTORE

The owner follows nationally advertised prices which permit a 33 to 40 percent markup on retail price. His decisions concern what price lines to carry rather than what prices to set. But he does reduce prices drastically at end-of-the-season sales. The owner states that he prefers a "quiet life" and is content to eliminate as many decisions as possible.

CLOTHING STORE

The manager usually bases price on wholesale cost. An item costing from $7.00 to $8.50 per dozen is priced at 98 cents. An item costing $1.90 to $2.15 is priced at $2.98. Thus the manager does not use constant percentage markups but aims at a rough average of a 50 percent markup on cost. If an item looks as if it will sell, he might raise the markup. If he gets a good buy, he does not reduce price accordingly. A few items are prepriced. He puts on sales in February and August to clear out the old stock. The markup on some items, for example, work clothing and shoes, is lower primarily because of competition and an elastic demand.

FEEDSTORE A

The practices are different on branded and unbranded feeds. (1) On branded feeds there is a predetermined absolute (rather than percentage) markup on wholesale cost. The markups are suggested by the feed producers; they are higher on lower volume items, such as rabbit feed. (2) Unbranded feeds, such as soybean meal, are usually priced according to the nearby metropolitan market, with little weight to the cost of the feed to the store. If the store carries a large inventory of such unbranded feeds, the manager makes certain he is not underpriced by his nearest competitor. Sometimes he sells off inventory below cost to clear warehouse space.

FEEDSTORE B

This store bases price on a "fixed absolute dollar markup on wholesale." The markup is on the replacement wholesale cost according to the latest market quotations. The store seldom reduces its markups, the chief exception being a 50 percent reduction of markup for a large customer. The store

has no competition within 20 miles; this large customer might have gone this distance without the price reduction, but the other customers probably would not because of hauling costs. The firm tries to avoid charging too much above the price elsewhere because of the effect on customer goodwill. Also, there is the danger of high prices attracting a competitor into the town.

The feed prices are changed from week to week with changes in replacement costs. But the markups are not changed. This store follows an unusual practice (for feedstores) in charging the same markup per ton on unbranded soybean meal as on branded meals, possibly because of the absence of local competition. There is no evidence (aside from the case mentioned) of discrimination among customers or of any experimentation in pricing.

TWO MIXED SALES AND SERVICE OUTLETS

The next two firms fall into both the service and retailing categories and are thus presented separately. The first case presents evidence of considerable flexibility in pricing but nevertheless suggests that the owner is not exploiting his monopoly position fully. Both cases indicate strong demand influences in pricing.

Silver Retail and Repair Shop

Description. The firm is in the business of buying, repairing, cleaning, and selling used silver, repairing silver on job orders, and retailing and wholesaling new silver items. With an established clientele, it has the greatest volume of business in the area. Located in a city over 50,000.

Chief considerations in pricing. 1. The owner does not sell at a price which is below full costs. His average gross margin is 30 percent of price (customary margin, 50 percent); the margin is less on orders from large customers, which form an important share of the total business. His policy is to achieve a large volume of business. The major determinants of prices of used items are weight and age; both of these are cost factors. A demand factor is the desire to maintain enough price differential between new and used items of the same type to stimulate sales of the latter.

2. For repairing, the charge is $5.00 or $6.00 per hour,

but it is sometimes higher if the owner thinks the customer will pay it.

Price differentials; variable markups. 1. Margins on sterling silver trophy cups and similar fast-selling items are less than 30 percent.

2. Most of the departures from the 30 percent margin are upward, and all are the result of demand considerations, as are the variations in repair charges. The owner does not mark prices. He believes some customers will buy at a higher price rather than low because to them high price means high quality.

3. Sometimes the owner gets items at a low cost and thus makes a higher margin.

4. The owner does not bargain with customers despite the great flexibility of his pricing practices.

Further discussion of cost and demand considerations. Only rarely is a slow-moving item marked down, and apparently the markdown never exceeds about 10 percent. The owner thinks that every item will find eventual sale.

Market structure. The owner believes he has only one (weak) competitor for his repair business. Probably there is oligopoly in the new-item market, and monopoly in the used silverware and repair business. Apparently there has been no retaliation against his low prices on trophy cups.

Other points. When asked, "Is there anything you could do to make more money in this business?" the owner said it was possible that there is, but he could not think of any specific actions. On the other hand, when asked, in a different interview, why he did not raise prices on repair work, since he has a monopoly in that market, he replied that he did not know. When asked if he feared a loss of business, he said not. Apparently he has not thought through the possibility of making higher profits through higher prices, but he has a "feeling" volume might fall off at higher prices. He also comments on income taxes on higher profits as a deterrent to raising prices. It appears that he is not striving for the maximum possible profits.

The other firm in this category is a distributor for a well-known airplane manufacturer as well as a dealer in second-hand planes. The firm also conducts a charter plane service and operates repair, line, storage, and inspection services. The firm's pricing is demand oriented, with considerable attention directed to competitors' prices. The firm some-

times departs from suggested manufacturer's prices in selling new planes to cut inventories, to ease financial stringency, or to meet sales quotas. The rates on the charter service must meet local competition as well as that from firms in other cities.

SIX WHOLESALERS

This study covers six wholesalers, but they are so variable in character and behavior that generalizations are doubtful. The first case is one of a lumber wholesaler who marks up on cost but whose markups are clearly influenced by demand. This is one of the few cases in this study in which the objective is expressed in terms of a target return.

Lumber Wholesaler

Description. A family-held corporation which serves as a wholesale distributor of lumber and millwork to retail lumber dealers. The firm does a limited amount of manufacturing to meet demands for items not included in its line of finished products. Located in a city of 50,000.

Chief considerations in pricing. 1. On readymade stock, the firm applies varying markups on invoice cost. The management claims it aims at an overall margin on total sales (a target return).

2. On shopwork, the firm estimates on the basis of materials costs plus labor plus 200 percent of labor for overhead (50 percent of labor on bench jobs) plus 25 percent for profit. This produces a price as much as three times that for standard items and causes frequent customer complaints. (The manager often makes adjustments, though he says this business is unprofitable.)

Price differentials; variable markups. 1. The willingness of the company to do unprofitable shopwork is based on the effect on other sales. This service makes possible the securing of orders that include nonstandard-size items.

2. The markups on standard items vary according to the rapidity of turnover and estimated handling costs.

The prices are listed in an annual looseleaf catalog, with periodic corrections on individual sheets.

Market structure. The firm faces competition from firms in other locations.

Other points. 1. The manager says he does not try to get the net income of the firm into the surtax bracket. He is more desirous of maintaining a reputation for fair dealing and good product or service.

2. This firm formerly did retail as well as wholesale business. The retail business was discontinued to permit utilizing the firm's resources in the more profitable wholesale level of operations.

3. Prices must be competitive with those of more advantageously located competitors. This suggests that the markups are based not only on costs but also on demand (competition).

The next two cases are in strong contrast. The first company stresses cost plus; the second emphasizes demand. A third case (the building supplies wholesaler) falls between the two.

HARDWARE WHOLESALER

This firm supplies 250 hardware and variety stores. Its policy is to add a 9½ percent markup to cost, with slight variations in this markup. Savings from advantageous buys are not passed on. There is little evidence of adjustments of prices to demand, but no doubt the ability to charge a 9½ percent markup is based on competition and other demand considerations.

FROZEN-FOODS WHOLESALER-DISTRIBUTOR

This firm supplies independent grocery stores and institutions. The manager places primary emphasis on demand influences on price. He recognizes that he must keep his prices low enough to permit independent retailers who are his customers to compete with the chain stores. In selling to institutions, he is also forced to low margins by the competition from other suppliers and by the possibility of direct buying by the institutions. The company charges the same prices throughout its delivery area of a 100 mile radius. The manager is considering reducing prices in towns with the greatest competition (which are not necessarily the ones with the lowest delivery cost).

BUILDING SUPPLIES WHOLESALER

This firm buys building supplies in carload lots and sells them to builders. The price system is based on cost plus a markup, but in practice this system is adjusted to competition, by means of "deals" with builders which involve variable markups. While there is some differentiation on the basis of

delivery, service, and quality, the main consideration in selling is price.

The next case is different in that the sales are almost exclusively on a bidding basis, with a resulting emphasis on demand.

STEEL WHOLESALER

The firm warehouses and sells structural steel along with some small fabricated items such as metal stairs, stair rails, etc. Sales are mostly on a bidding basis, which means that markups must be variable to meet the competitive situation. The firm bids lower when sales are light. The firm does not have a breakdown of fixed and variable costs, but it is aware that a substantial part of the costs are fixed. The management applies incremental reasoning; it sets prices at levels that will build the volume to contribute to costs that "will run on anyway." This firm supplies about 15 percent of the structural steel in its market and considers the market to be highly competitive.

The last case presents a similar picture, even though prices are expressed as discounts from "list prices."

GLASS JOBBER

This firm supplies retailers in a radius of 75 miles and, in addition, sells glass at retail in the city in which it is located. A national publication of list prices is used as a starting point in pricing, but discounts from this list are influenced by competition. The discounts differ on different classes of glass (as is true for competitors), but there is no discrimination among retail customers. On contracting jobs, prices are estimated on the basis of a national agency's recommendations, which expresses labor, overhead, and profit as rates on materials prices. Discounts are higher for large volume customers (over $5,000 per year). In slack times, prices are reduced to help spread fixed costs over a large volume (labor costs are considered relatively fixed).

SEVEN PRINTING COMPANIES

Of all the industries so far, the printing industry shows the strongest attention to full-cost pricing. This is not to say that demand influences are irrelevant. The managements of most of these companies admit that they use "judgment"

in quoting prices. They may resist breakaways from full-cost pricing, and resent it when other firms break away; but they do make concessions based on demand conditions. Furthermore some of the companies vary their markups according to certain categories of business, and these differentials appear to be based in large part on differences in demand elasticities.

PRINTING COMPANY A

Description. Commercial printing usually in large lots. Over 200 employees. Located in a large midwestern city.

Chief considerations in pricing. 1. The price of a printing job is influenced by the *cost estimate.* The cost estimate is based on full cost plus a margin. The materials costs are charged at "actual" (with modifications to be noted) plus a small markup. The labor and overhead charges are obtained from an hourly machine rate. This rate is based on "budgeted costs" (estimated total labor costs and overhead divided by estimated volume) adjusted for recent actual experience. These rates are combined with time standards to arrive at the cost of the particular job (judgment is used in modifying these estimates).

2. Demand conditions are an influence, though the company tries to minimize variations from a full-cost basis of pricing.

Price differentials; variable markups. The company has a definite policy of variable markups, which are at least in part based on demand and market conditions but mostly on cost differences. Customers fall into five categories, each with a different markup percentage:

1. *Class 1*—First run of any job requiring speculative creative work or any job requiring outside purchases over 60 percent (called brokering). High markup.

2. *Class 2*—Reruns of jobs originally in Class 1. First runs of other jobs not requiring speculative creativity. Somewhat lower markup.

3. *Class 3*—Reruns of jobs originally in Class 2.

4. *Class 4*—(not frequent). Jobs which are part of a total program and which may result in additional business.

5. *Class 5*—Special class for magazines and other special publications. The company also quotes special prices for charitable organizations.

Further discussion of cost and demand considerations. 1. Company officials are quite aware of their incremental costs, which they estimate at about 55 percent of sales price (labor

cost is fixed for shortrun changes). But the company resists pricing below full cost when business is poor for several reasons:

(1) The managers believe it depresses the market (officials wish other companies would stick with full costs). They believe incremental pricing helps account for low industry profits. They have ethical objections to price cutting.

(2) The officials believe that regular customers might be offended by more flexible prices, feeling that the company is not dependable and stable in its policies.

(3) The officials believe that the timing of low-price jobs is unpredictable—there might be delays, so that the jobs would interfere with other work (this reflects a recognition of opportunity costs—the interference of low-price jobs with other work).

2. One way the company reduces prices in effect is to offer special services without charge—such as editing (perhaps this might be called a form of nonprice competition).

3. The variable markups reflect recognition of differences in demand elasticities, especially in Class 4. Also, it is clear that the company does (despite its reservations) allow business conditions in general to influence its pricing.

Market structure. There are over 80 printers in the city where this firm is located. On some kinds of business, however, this firm faces nationwide competition, while on other kinds of business competitors are few. In any case the demand is not completely elastic because of differentiation of the product (differentiation on the basis of quality, dependability, etc.). The firm does not fear retaliation by other firms as a result of its price policies. But it does feel that incremental pricing is leading to a general deterioration of profits and would like to see the practice halted. This situation is best described as monopolistic competition rather than as oligopoly.

Other points. 1. The officials stress nonprice factors in maintaining customer goodwill, such as dependability and special services.

2. The customers are charged for materials on the basis of their own quantity rather than the quantity purchased by the company. This is an added source of profits. In some cases the company compromises on this (for example, by charging on a ton basis even though the customers use only 1,500 pounds, thus passing on part of the quantity discount).

3. Sometimes the estimators take into account the actual time that it probably will take an efficient worker to do the job rather than the average time for the department. This results

in a lower estimate. Higher management believes that this may be due to special pressures from the sales department.

4. In some cases when actual costs are below estimates (as might be true when the customer orders a larger volume than originally planned or simplifies the job in some way) the company refunds part of the savings. This contributes to customer goodwill.

Printing companies B, C, and D are the most adamant of all on full-cost pricing. Firm B makes exceptions in charging a lower markup on envelopes and letterheads, on which competition precludes a higher charge. But the manager resents such exceptions and claims that "profitable plants make a profit on every job." Firm C has exerted leadership in encouraging other printers to determine fully allocated costs in the hope that this would limit price cutting. In fact, the manager is insistent that a firm should adhere to full costs even in poor times, despite the fact that the overhead per unit will be larger because of the low volume. But this is not the entire picture. The company does vary markups. It lowers the markup to secure a new customer or to compete in bidding. Thus the manager refuses to go below full cost, but he is flexible on his markups. Pricing is not completely a mechanical application of a cost-plus formula.

Printing company D appears to be more consistent in its cost-plus practices. Paradoxically, demand conditions appear to account for the ability of this company to apply its cost formula so rigidly. The firm has a reputation for high quality and dependability and has a strong body of regular customers. Thus, the firm's demand is inelastic—much more so than the demand facing printers with stiffer competition. The management states, "We are slightly higher in price and could go even higher because of the quality of our work." This seems to be a case in which the inelasticity of demand permits a routine application of full cost plus a fixed margin in pricing.[3]

[3] The company does deviate from this formula slightly on competitive bids.

Company E, a smaller firm, starts with full costs (on a budgeted cost system) but is much less successful in adhering to a cost-plus approach. Competition for this firm is more severe and the firm probably faces high costs because of its less efficient equipment. The interesting point about this company is that, if its estimated hour costs come out too high to be competitive, the management adjusts the hour cost figure rather than the markup. This is the opposite of the practice of company C, which sticks strictly to its cost estimates but varies the markup.

Company F, the smallest of the entire group (only two employees in addition to the owner), is an exception to the full-cost pattern. The owner does not maintain the kinds of records that would enable him to estimate costs on most of his operations. He relies heavily on a national printing-rate book; this is the same manual used by company B, which, however, uses it as a check against its own costs. Company F does not use the national manual rigidly; it adjusts prices *downward* from the published rates because of competition. The situation is one of duopoly, with perhaps some competition on large jobs from the outside. The owner keeps a close watch on the prices of his competitor. The rates charged by both appear to be considerably below those prevalent in nearby cities.

Company G is no longer in operation. This discussion covers its pricing policies *before* and *after* its sale to a larger printing concern. Unfortunately, there are differences of opinion as to the actual pricing practices before the sale, but these differences are of special interest.

COMPANY G—*the president's version*

The president of the company was also the chief stockholder. He had inherited the concern from his father. Although the company did not maintain an adequate cost accounting system, the management did have a policy of pricing according to cost (often cost estimates were obtained from published manuals rather than internal sources). A few quotations will indicate the company's views on pricing.

"We always tried to price on cost of production regardless

of demand. It seemed to us a means of holding customers and keeping a reputation for integrity. We made few exceptions to this rule when we were trying to get into specialty printing in a small way.

"We tried not to think of competitors. I can't recall any instance when I felt a competitor retaliated for our having underbid him. Also I cannot recall ever having heard of such retaliation.

"Some consideration was always given on long runs, i.e., on contracts, such as publications, for as such jobs were handled repeatedly, savings on cost of production were almost invariably made.

"The percentage of profit added to costs was the same except on repeat work or perhaps on work which involved only one department or machine."

The president's views on the ethics of pricing are of special interest:

"The worst battle printers had to fight while I was in the business was that of trying to bring about better relations with other printers—trying to stamp out the cutthroat competition. It was easy enough to condemn other printers for this. Sometimes the drastic underbidding on a printer's part meant the difference between meeting his payroll and not."

This company like the others in this group did not follow its full-cost policy rigidly:

"You ask if the company sometimes bid lower than full costs because of the desire to use idle capacity. It seems to contradict some of the foregoing when I say that we did. When we bought the very large folder because it would take care of a job we had had for over thirty years, we knew we would have to get other work for it; we couldn't afford it for one job a month (a publication). Since no other printer or binder had such a folder, we thought we could keep it busy and we did cut the price drastically in order to get work for it. Also we lowered prices on our monotype department, which, because of investment and labor, was a tremendous drag—or we thought it was."

The management apparently did not take advantage of shifts in demand.

"We did not raise prices when demand was high—perhaps we should have—nor did we charge customers more because they could or were willing to accept the larger charge."

Thus the overall picture is one of pricing on full cost, with considerable uncertainty about what the cost of the individual job actually was. The president expressed the view that there

were "so many intangibles that it seemed foolhardy at times to think you had definite hour costs."

COMPANY G—*the new manager's version*

As has been stated, the company was sold to a larger concern. This firm appointed a manager to run the subsidiary. He had quite different opinions about the company's pricing. He regretted that the company did not have a real cost accounting system. If the former managers had maintained such a system, they would have seen that their costs were rising. He cited one machine on which the company was charging $7.50 per hour; his opinion was that it should have been $13.00 per hour.

The new manager started raising rates soon after he took over. He also stopped the practice of passing on quantity discounts on materials to the customers. The result was a loss of business. For example, one national trade journal transferred to another printer when the charges were raised 30 percent. The manager argued that if the old management had boosted rates gradually, the loss in business would have been less. He was forced to increase price sharply, and this was hard on customer relations.

The final outcome was the liquidation of the operation. One might argue that the subsidiary had priced itself out of business. But the assets were sold on favorable terms, so that the parent company made a gain on the purchase and liquidation. Since the subsidiary had not made profits on the average either before or after the sale, the liquidation decision appears to have been reasonable. The true costs for this operation were the opportunity costs—the value of the assets in other occupations—and apparently no price policy would meet those opportunity costs.

The outcome of this survey of printing firms is a conclusion that full costs are a central concern of most companies in pricing. But a close examination of the individual cases raises doubts about what those costs actually are and certainly reveals some flexibility in applying full-cost formulas. We cannot say that these firms are ignoring marginal considerations, nor can we say the opposite, that they are applying marginalism to the fullest. They appear to be

striving for a limitation of competition by common pricing practices, but they are failing to enforce these practices in the industry and are not entirely consistent in following the rules of the game themselves.

FIVE FURNITURE MANUFACTURERS

Only one of the five furniture manufacturers gives evidence of strong adherence to a full-cost formula. Surprisingly, this is a case in which the company bids on its contracts. One might have expected that a bidding situation would be more competitive and, thus, that strict adherence to cost would be less possible. In the other four cases there can be no doubt about the central role of demand estimates in pricing; these managements try to adjust prices to existing conditions (this is especially clear in cases C, D, and E).

Several of the managements are uncertain whether profit maximization is their objective. It would appear that the owner of furniture company A is not exploiting his favorable demand situation fully. He is not certain whether he is maximizing profits, though it would be possible to rationalize his decisions in terms of maintenance of customer goodwill and in terms of avoiding risky expansions that might in the long run prove unprofitable. The owner of company B states that his objective is not maximum profit but rather stability of employment and a "satisfactory" income (large enough, however, to help him finance expansions). The remaining three cases show considerable evidence of decisions to seek greater profits, exploiting demand differentials.

Furniture Company A

Description. A manufacturer chiefly working on contracts for motels, hotels, schools, and the armed forces. Special designs are made up for each order. The firm serves most of the United States. Two hundred employees. Located in a city of 10,000-20,000.

Chief considerations in pricing. 1. A high proportion of the business is done by bids, made on a full-cost basis. In many

cases the bidding is not highly competitive. Direct labor and materials costs are added to give "basic cost." To this is added a 90 percent markup to cover selling costs, overhead, and profits. This system is deliberately kept simple because of the need to quote estimates on short notice.

2. Clearly, demand conditions permit this system of pricing; the company apparently has no difficulty selling all of capacity production at such prices. The management does not know how it would react to less favorable demand conditions, but it would put up great resistance to anything but full-cost pricing.

Price differentials; variable markups. 1. The management claims that it operates on the full-cost basis on all jobs, taking no advantage of favorable markets and never experimenting with lower prices to tap new markets. It has not cut price in the five years it has been in this contract furniture business (in earlier years the firm produced furniture for regular retail outlets).

2. There is a minor exception to the 90 percent markup. Sometimes the markup is 100 percent to cover the extra costs of working up special designs, of making up complete rooms of samples, etc. But this is a cost reason for variation rather than an exploitation of demand.

Further discussion of cost and demand considerations. 1. There is little evidence of shortrun incremental reasoning. The company has never faced a shortage of demand in which it might have to cut price and does not anticipate having to do so in the future.

2. The company deals with excess demand simply by not bidding on added business.

3. The management believes that the larger furniture companies that engage in both the regular and the contract furniture businesses bid below full cost on contracts when the rest of their business is off.

4. Apparently the company could sell much more at present prices. The company follows the practice of bidding on government contracts when its regular business is off (these bids are also on the 90 percent basis). Therefore it can stabilize employment by the amount of effort devoted to seeking such extra contracts.

5. The company prefers not to expand capacity to meet the demand. This gives greater security against unemployment and losses in bad times.

6. The company wins the majority of the motel-hotel

business on which it bids. But on government contracts it is awarded only about one out of 15 contracts on which it bids.

Market structure. On the motel business, this firm faces competition from very few firms. Some customers seek out this firm for designs and bids. The company has 12 contract dealer outlets in various parts of the country; these bid on jobs that require furniture, lamps, carpets, etc., only part of which are supplied by this company. On school jobs this company usually faces competition from six to eight other firms. On government contracts there are usually about 20 bidders. This company cannot predict when its bid on government jobs will be low; it depends on how "hungry" for business the other firms are.

This company produces its own materials (has a sawmill) and probably is unusually successful in meeting delivery requirements for motels and other customers.

Other points. 1. In estimating direct labor cost, the company has worked up a "formula" based on past experience. It constantly compares the actual costs with the estimates from this formula. Sometimes the estimates are high and sometimes low. There is not a cost accounting system but instead a set of rules for estimating costs. Materials costs are estimated in detail according to the amount of materials required in each piece of furniture.

2. The management claims it is not interested in getting as big as possible. It is not even certain it aims at maximum profits, though it agrees that a reason for not expanding may be the risks to longrun profits. The present conservative policies provide the security of a pool of business that the company can draw on when needed.

FURNITURE COMPANY B

Description. A sole proprietorship specializing in the manufacture of antique reproductions. The firm makes some direct retail sales, but most of the business is done through retailers within a radius of 200 miles. Forty employees. Located in a town of 10,000-20,000 population.

Chief considerations in pricing. 1. The firm does not have a formal system of pricing. The owner is influenced by his overall income and by his cash position in making price decisions. He is also influenced by the desire to maintain employment in a community which is highly employment-conscious.

2. He keeps an eye on the volume of orders. If it were to

fall off, he might revise prices; but, not having faced a serious decline in orders in his 17 years in business, he is not certain what he would do.

3. The owner believes that competition from lower quality, "mass-produced" furniture places a ceiling on what he can charge. Even though his furniture is of solid cherry with a great deal of craftsmanship, the general public will not pay a premium on his furniture. In fact, he suggests a markup on the retail level below that which is general because of the danger of being priced out of the market. Because of the low margin, some stores refuse to handle this furniture.

4. Despite the heavy competition, he is influenced by costs. He recently increased prices by 4 percent, the first increase in ten years, to make possible an increase in wages.

Price differentials; variable markups. 1. The owner maintains a published pricelist with wholesale prices and suggested retail prices. He makes no attempt to enforce the suggested retail prices; in fact, he appears to favor flexibility. Most retailers buy at his published wholesale price (unless they are outside his normal delivery zone, in which case transportation costs are added). But he is willing to negotiate prices with individual dealers and with ultimate consumers. He feels that this willingness to negotiate has contributed to his success. He does not negotiate a special price in cases that will affect cities or towns where he has established "accounts"—he does not want to undermine his accounts.

2. His wholesale prices to stores to the west are lower than in other directions. He describes this as "promotional pricing." His volume of sales is lower to the west, and he wants to stimulate retailers there to carry his line.

Further discussion of cost and demand considerations. 1. There is no evidence that he takes advantage in pricing of a big backlog of orders when this occurs or that he lowers price much in poor times.

2. His "promotional pricing" to stores to the west suggests he thinks demand is more elastic in that direction, but this seems uncertain. His willingness to negotiate prices with individuals and some dealers also suggests attention to elasticity considerations; he no doubt makes some estimate of how urgent the customer's desire for the furniture is.

Market structure. The situation is one of monopolistic competition. There are numerous firms, but this one has a highly differentiated product.

Other points. The owner claims that his objective is not

maximization of profit. He is interested, however, in a cash flow that will give him a moderate income (he presented evidence that he lives quite modestly) and finance expansion and replacements.

The remaining furniture companies (C, D, and E) recognize a mixture of cost and demand influences on pricing. Company C starts with what it calls a "scientific" formula based on cost, but adjusts estimates for competitive conditions by giving discounts to large customers and sometimes by giving discounts so that it can make use of idle capacity. Company D aims at a 10 percent profit on sales, but adjusts the markups seasonally and on particular lines. For example, its profit markup is only 6 percent on selling price on certain cabinets facing low-price competition; the profit markup on certain chests is 15 percent because competition is less severe. The company also discriminates in favor of a group of longtime distributors by granting them a 10 percent discount. These distributors take large volumes, but the company does not grant the same privilege to new distributors. In 1960 the management expressed the desire to raise prices by 3 percent to absorb cost increases, but refrained from doing so in view of the excess capacity of competitors.

The management of firm E is quite conscious of the complexity of pricing decisions. It computes the direct costs of a particular product, but adjusts the markup according to estimates of price-volume relationships. Markups vary from item to item, but so far they do not adjust to business conditions. The manager meets recessions by expanding sales effort rather than by price concessions. He is not certain how he would behave in a major decline, but he resists the idea of lowering price in such a situation.

EIGHT BUILDING SUPPLIES MANUFACTURERS

The eight cases of manufacturers of building supplies are less satisfactory than most in this study. Thus, most of the following discussions are tentative.

CLAY PRODUCTS MANUFACTURER

The practice of this company is to quote prices as a discount from "list prices." The "list prices" have a completely different significance from those elsewhere in this study. They have been established by the trade association and have remained the same for several decades. The actual price varies from the list price according to the distance from the manufacturer. Each manufacturer determines its own schedule of discounts. This company determines its discounts on the basis of its own cost-demand situation. The percentage discount for one product may differ from that for another at the same destination.

The company maintains a cost accounting system which aims at obtaining the full cost, including allocated overhead. Apparently the goal is cost plus the same percentage markup on all items, but this aim is not always achieved in practice. Price changes are infrequent, despite constant increases in materials costs and wages. The ability to pass increased costs on to the customers is dependent on what competitors are doing. The behavior of competing firms thus appears to be a primary influence on prices. This is clearly an oligopolistic situation, complicated by geographical differences in the relation of competing firms to various markets and resultant differences in transportation costs.

The next case is one of a very small firm that has given unusually great attention to the mechanics of pricing. At first glance the practice appears to be heavily cost oriented, but a closer examination indicates flexibility in the pricing policy with respect to demand (including competition) and uncertainty.

CONCRETE PRODUCTS FIRM A

Description. A partnership with $40,000 annual sales in precast concrete products. The active partner makes most of the operating decisions, but on crucial decisions the inactive partner (the primary investor) is advised. Four production workers and one office clerk. Located in a city with more than 50,000 population.

Chief considerations in pricing. 1. On most jobs, a noncompetitive bid is submitted. This bid constitutes the final selling price. An actual bid was explained to the interviewer as follows:

Estimated cost of form (wooden)

(1)	Cost of materials	$ 100
(2)	Cost of labor	100
(3)	Contingency	50
		$ 250

(Note: The labor cost includes $45 overhead cost; the contingency charge is for possible errors in estimating time and was calculated at an amount which rounded off the cost of the form to $250.)

Cost of final product

(1) Cost of form
(2) Materials (cement and aggregates)
(3) Set up form (labor)
(4) Pour (labor)
(5) Strip and cleanup (labor)
(6) Haul to site
(7) Contingency (an amount equal to about one-twelfth of total cost in this case)
(8) Overhead
(9) Profit—markup of 25 percent

2. The overhead is applied to jobs on the basis of man-hours involved in the job.

3. The contingency charge varies with the amount of uncertainty. This particular job was a "first done" job, and the contingency charge was "larger than usual."

4. On stocked products, a 1955 pricelist was established and only two minor revisions have been made since that time. The basis of the list is cost. The cut stone industry subsequently reduced prices of window sills below this firm's pricelist. This firm did not retaliate.

5. In one instance, the firm was $650 below a competitor's (cut stone) bid. An upward adjustment was not made, due to longer run considerations: this will help him maintain contact with this contractor.

Price differentials; variable markups. 1. The markup varies on different jobs based on (1) possible future business, (2) competition from cut stone, (3) a feeling of what is fair to the particular institution (such as churches), and (4) the degree of uncertainty in the bid.

2. The contingency charge is a kind of markup and varies from one job to another.

Further discussion of cost and demand considerations. 1. On jobs that tie up production of other products (especially

the process of form making), added costs are included to compensate for loss of flexibility. There is no systematic method of doing this other than being liberal with cost estimates.

2. The demand is closely tied to construction of commercial and institutional plants. It is seasonal, but no labor costs are avoidable during the off season. The owner does not lay off employees in the off season. He produces for inventory even though some inventory is four years old.

Market structure. 1. The firm is the only specialty precast concrete firm in this location. Precut stone producers are competitors, but precast concrete is less expensive and has many of the quality features of precut stone.

2. The market spreads to the east and southeast in a radius of about 200 miles.

CONCRETE PRODUCTS FIRM B

The manager says that demand determines the price of his concrete blocks. The product is not differentiated, so that the demand is highly elastic. At one time the manufacturers agreed to increase prices, but some failed to live up to the agreement; also, a supply of blocks flowed in from a nearby city. On the basis of this experience, the manager concluded that only through cutting cost could he remain in business. As a consequence, his price is about the same as 20 years ago. He thinks this price is too low, but competition prevents any price increases. He does not vary his price according to the customer.

CONCRETE PRODUCTS FIRM C

1. *Pricing septic tanks*—The situation is one of duopoly; there is only one competitor. This firm is strictly a price follower. It imitates the prices of its larger competitor. It does estimate its full costs on septic tanks but does not take such costs into account in pricing, except perhaps to see whether a satisfactory profit is earned. When the Board of Health in this locality required that septic tanks must be larger than 600 gallons, the firm faced slightly higher costs on the larger size, but was able to raise the price by $15, in line with the price of the competitor. One peculiarity is that the competitor does offer a 10 percent discount to some of its customers, but firm C does not. Apparently the reason for not discounting is to avoid cutting too deeply into the competitor's business, in the fear that he might retaliate by producing burial vaults (the other main line of firm C). Also the manager says he is not a "price cutter."

2. *Pricing burial vaults and other products*—The firm has a local monopoly in the burial vault market. The pricing is based on direct costs (labor and materials) plus a percentage for overhead and a 100 percent markup on this full-cost figure. On this product he will pass on cost increases in the form of higher prices. He is under no pressure to lower the price, since demand is inelastic and the much more expensive metal vaults offer no direct competition . The owner has ethical feelings against raising the price. He follows similar policies on other secondary products on which he also has a semimonopoly position.

CONCRETE PRODUCTS FIRM D

This firm produces concrete blocks (60 percent of sales), cinder blocks (10 percent), and burial vaults (30 percent). It is a single proprietorship with six employees. The firm has a flexible price policy, bargaining a great deal with the construction firms which are its main customers. These construction firms play one supplier against the other to get the lowest possible price, so that the competition is severe. The firm has diversified its product lines, enabling it to have more freedom in pricing particular products. The firm makes no attempt to measure unit costs, so that there is no conception of markup. The firm is concerned with the overall cost-revenue relationship and tries to absorb cost increases in overall price increases.

READY-MIX CONCRETE SUPPLIER

This firm quotes prices on a cubic yard basis with added delivery charges beyond a perimeter. While it faces only three competitors and while it claims superiority for its product, the firm has little discretion over price. It does raise price when its materials costs rise, but this is only possible if competitors do the same, which is usually the case. The firm does shade price somewhat in the off season. It is interesting that the firm has a much less flexible price policy than the previous firm, even though it is in the same location. It appears that the rigidity of price is a result of the usual desire of oligopolists to avoid open price cuts. This firm, however, is able to get some business by carefully estimating delivery times, giving it a delivery cost advantage at points equidistant from competitors.

CONCRETE PIPE COMPANY

This firm follows a policy of full cost plus a uniform margin, but it does not revise its prices continuously with cost changes. There has been only one price change in the past six

years; it was based on increased material and labor costs. This is an oligopolistic market limited by delivery costs. The manager considers the ability to service customers (he can meet pipe needs immediately from stock) as important as pricing in securing sales.

ROCK QUARRY

This firm operates both an underground and a surface rock quarry. The price is set f.o.b. quarry. The product travels only short distances because of transportation costs. Since the product is relatively undifferentiated, the demand is highly elastic and the firm has little control over price. The problem is to hold down costs so that profitable operations are possible at the market price. There are many competing quarries nearby. The firm produces a high quality gravel that enables it to get some contracts that some firms with less dependable quality cannot get.

TWO FLOUR MILLS AND A MEATPACKER

The two flour mills covered by the study have somewhat different emphases in pricing. The first stresses demand; the second starts with cost plus a margin, but makes adjustments according to demand. The difference appears to be a matter of degree; perhaps the difference is that the second is smaller and has been more successful than most firms in differentiating its product and thus has more control over price.

FLOUR MILL A

Description. A corporate milling firm producing flour (50 percent of volume), feeds (50 percent of volume), and small amounts of cornmeal. The firm sells to jobbers over a four-state area and direct to retail grocers within 40 to 50 miles of the mill. Located in a city over 20,000.

Chief considerations in pricing. 1. Demand, which is highly elastic, is the primary influence on pricing. But the firm's prices also have a fairly stable relation to costs (grain prices) largely because competitors relate their prices to grain costs.

2. The firm offers special discounts or allowances in areas in which competition is severe or where the firm's product is less well established.

Price differentials; variable markups. 1. Prices are lower to jobbers than to retailers, but the manager says the difference is

just about equal to the difference in costs (lower selling costs, less delivery cost, less record keeping, etc.).

2. Larger retailers (chains) are given lower prices both on grounds of lower costs for larger orders and on demand considerations.

3. The markup is lower on relief flour, which is sold on bids (competition and demand require this).

Further discussion of cost and demand considerations. 1. Variable and fixed costs are considered separately by management in setting bids on special sales such as relief flour and in determining allowances to be made on list to introduce flour into a new area or meet competition which is conducting sales promotion in an area. This is an indication of incremental reasoning.

Market structure. The firm faces competition from three large national milling firms and a number of smaller firms. If it cuts price, the firm expects these competitors to do likewise. Normally, however, the "big three" dominate prices.

Other points. 1. Numerous promotion schemes are used by competitors (such as an extra bag of flour with each twenty bags bought, a silver dollar given with each purchase of a given quantity, a reduction of price for "merchandising," etc.) in selected areas. Competitors in some cases set prices in areas selected for sales promotion which are below out-of-pocket costs. To prevent loss of customers in such areas, the management sometimes reduces price to comparable levels. This is done with an understanding that it is only for a stated period. Generally the limit on reduction below list price is 10 percent.

2. While capacity operations are considered to be 24 hours a day, normal operations are on a one-shift basis which may reach 50-60 hours per week by staggering the working hours. The manager appears to consider fixed costs applicable to volume produced at hours worked within this range.

The second flour mill bases its price on material cost, labor cost, an allocation of overhead based on labor cost, plus a percentage for profit. Usually this cost-plus price runs within 5 percent of the general market. If not, the firm must adjust its price to meet competition. The special quality of the flour and a large advertising budget provide some protection from the market which is dominated by the large firms.

The packing company is in a situation similar to that

for the flour mills. Its practices are similar to those of flour mill A.

MEATPACKING COMPANY

The management describes the company as a "price follower." Its markup is only a target; its profit is essentially a residual. The management claims that meat prices tend to the levels required to clear the market, since the product is perishable. The firm even follows the pattern of the larger firms in setting price differentials to large customers (these differentials are justified by lower costs). This is one of the strongest cases in this study of a firm that is a "price taker" rather than a "price setter." It is strongly influenced by the fear of retaliation by both the large packers and independent packers. Despite this pattern, the price is highly flexible over time, so that price decisions are necessary on each product daily.

The kinked-demand theory appears applicable. The management expects sharp decreases in sales at higher prices and retaliation at lower prices. But, as has been indicated, this does not mean prices that are rigid over time. There are a few exceptions to the pattern of following the leader; sometimes the firm quotes special prices on cuts of meat that are overstocked. This is done only for short periods to prevent retaliation.

FIVE MISCELLANEOUS MANUFACTURERS

The last five cases are scattered over a widely diverse area of manufacturing: chemicals, advertising specialties, fire clay, machine work, and monuments. They are presented together merely because they do not fit into any of the preceding categories.

CHEMICALS COMPANY

Description. A closely held corporation founded in 1959. There are three stockholders, one of whom is president (the only one active in the management of the company). The company competes with the large chemical companies on some product lines, but it also develops new products not yet supplied by the large companies.

Chief considerations in pricing. The company's pricing takes both cost and demand into account, without clear policies on when one would take precedence over the other. On the

whole, demand considerations appear to predominate. At the same time, the "rule of thumb" to which the management sometimes refers is cost oriented. The company develops new products which sell at prices higher than those on the old, established products. On the old products, the prices are usually based on the prices charged by competitors. The management tries to charge what "the traffic will bear." It takes into account the volumes that can be sold at various prices. The possibility of retaliation against reduced prices is a consideration.

Further discussion of cost and demand considerations. 1. The management does not allocate costs to particular products; therefore, the markup concept is not relevant.

2. The president is aware of incremental costs as a floor in pricing, but this is not a matter for concern under present conditions. He is much more concerned with the allocation of the limited space to the most profitable lines.

3. The differential elasticities of demand on different products are a primary factor in pricing. The company has a semimonopoly control over some products (based on patents) and can charge higher prices on these. But on competitive products it accepts the prevailing price.

4. The kinked-demand theory seems to fit the company's fear of retaliation against any reduction in its prices on some products.

5. The company uses a "rule of thumb" as a crutch rather than as an actual determinant of price. The president refers to these rules as "magic numbers." The rules are: three times raw materials costs for pricing small lots; and raw materials cost plus $40 per labor hour divided by volume (this would cover labor cost, overhead, and profits). These rules are considered helpful in deciding whether to take business.

Market structure. This is a small firm in an industry dominated by a few giants, such as DuPont, Esso, etc. There is a pattern of price leadership on some items. On new products, this firm has some protection against competitors because of the advantages to customers of these products. But, because of rapid technological change, this monopoly position is short-lived.

Manufacturer of Advertising Specialties

The products are primarily composed of paper or cardboard, with printed matter on them. Many are patented items. Pricing is on a full-cost basis, with a varying markup for profit. The cost is the sum of the materials cost (at invoice) plus labor plus a

percentage for overhead that is the same on all jobs. The overhead rate is based on past experience. The profit margin is higher on patented items, but the management avoids charging "what the traffic will bear" in the short run to maintain longrun goodwill. The profit margin is reduced on large orders. The management insists that it would not cut below full cost to keep the plant busy, but it might cut the profit margin. The management fears that low prices in bad times might make it difficult to recover costs and a reasonable profit in good times. The firm sells in a national market where there are many competitors and is quite aware of what other firms are charging. It also sells in a local market in which the situation is one of oligopoly.

Clay Refractory

The firm is relatively new. When it opened in 1958, it sold its product (fire clay used by steel mills to reline steel ladles) below competition. The competitors retaliated. The firm did acquire considerable business before this retaliation took place. Since then, the owner has kept prices at the level of competition or below (which fact still bothers his competitors). The firm has developed material for a new process which costs no more than the old material but which the owner prices 80 percent higher. He plans to maintain this high price until competition moves into production of a similar material.

The firm sells to a firebrick manufacturer at drastically reduced prices in the off season. The owner feels justified in doing this because it "adds volume." Thus this case appears to be a clear illustration of marginalist reasoning.

A Machine Shop

This firm combines machine work with warehousing. Pricing is based "solely" on the cost of material plus a markup for overhead and profit on sales of iron and steel. Pricing is based on labor cost plus a markup for overhead and profit on machine work. The markup varies between items that require machine cutting and those that do not. Also, since pricing is in round numbers (20 cents, 25 cents, 30 cents per pound rather than 18 cents, 23 cents, 27 cents, etc.), the markup varies. Cold rolled plate costing from 11 cents to 22 or 23 cents might sell at 30 cents a pound, providing a 100 percent markup on cost as an average. The manager makes no price reductions to induce sales or reduce inventories in poor times. He does not appear to take advantage of his monopoly position on bronze and stainless

steel; he applies the same price policy on them as on his more competitive business.

MONUMENT COMPANY

This firm erects monuments, including the lettering and engraving required. The pricing policy is one of stone cost plus direct known costs plus a percentage for profit and overhead. The company does not attempt to allocate overhead costs. The charges on lettering and engraving are included in the price of the monument without extra charge, unless they run above a "reasonable" amount. Approximately the same percentage markup is charged on stones regardless of size. The owner has ethical objections to reducing these margins in slack seasons or on larger stones. Prices are expressed in round numbers because the manager believes that customers prefer them (they may object to $315 but will accept $300).

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