

'Generalising from Case Studies: The First 46 Reports
of the UK Price Commission

by

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This paper is circulated for discussion purposes only and its contents should be considered preliminary.

I. Introduction

This paper is an attempt to assess the implications, for the theory of markets and the firm, of a body of information culled from the first forty six Reports published by the United Kingdom Price Commission since its reconstitution in August, 1977.

By now the usual method for testing theories empirically in Industrial Organisation Economics is to specify a simple mathematical 'model' of the determinants of one variable by a set of others, and to estimate the parameters of this model by applying econometric techniques (mostly ordinary least squares) to a set of numerical data. The results have been notably poor, at least by the standards of success achieved by econometrics in other fields of economics, which are themselves modest enough.^{1/} At least two possible reasons for this suggest themselves (and appear to be supported by the findings of this paper): simple mathematical models may be too 'blunt' to capture the nuances of market behaviour, and the data used (most of it from standard official sources) may not match the variables that are theoretically appropriate. As an example of the former - a firm with a dominant market share may thereby gain monopoly power to raise its prices, but it may have achieved its position by producing at lower cost than its competitors and passing on the cost differential in lower prices. As an example of data failings - there are plausible theoretical grounds for expecting market structure to be related to the levels of both price and cost, but from official data (such as Censuses of Production) we can do no more than approximately infer the difference, or margin, between price and costs through data on profitability. If both price and cost are positively related, say, to

concentration, the relationship of concentration to the margin between them is likely to be blurred, at best, and impossible to interpret unambiguously.

In contrast, a detailed case study, involving interviews with firms' managers and their clients, evaluation by independent experts, and even examination of the firm's books, can be expected to yield both a sophisticated description of firm behaviour and its results, and usefully detailed quantitative data. Indeed, case studies of particular firms or industries do turn up regularly in the economics journals.^{2/} Their limitation, of course, is that being focused on a particular market, they cannot safely be generalised to other markets. That is, we cannot infer general propositions from evidence that is specific to a limited situation.

The Price Commission's Reports seem to offer a way around the empirical block. Within a short space of time (about eighteen months) they have produced 46 Investigations and Examinations of behaviour in different markets. This number seems large enough to ensure some general applicability to any regularities of behaviour that may emerge. It is the task of this paper to identify these regularities from the Commission's Case Studies, and to analyse their implications for the theory of market structure, conduct, and performance - the central focus of interest in industrial organisation economics.

In section II, the database is described in detail, and caveats issued about the possibility of statistical bias.

Sections III and IV analyse the data on firms' pricing conduct,

looking first at the external (market structure) factors involved, and then at aspects of price decisions internal to the firm.

Section V examines the implications of the case studies for relationships between market structure and performance - in particular product quality and cost efficiency.

In section VI a comparison is made between the results of this paper and those of the famous 'Oxford' pricing study reported by Hall and Hitch. Section VII concludes the paper by summarising its implications for economic theory, and noting the possible consequences of the findings for economic policy.

II. The Database

Under the Price Commission Act of 1977^{3/} large firms are required to give 28 days notification of their intention to increase prices. A number of the proposed increases are selected by the Commission for Investigations, lasting three months, and they may recommend to the Secretary of State for Prices and Consumer Protection that the proposed price increases be restricted. As well, the Secretary of State may instruct the Commission to conduct an Examination of prices, costs, and margins in a sector of industry. Investigations are centered on the particular firm applying for an increase, whereas Examinations, which do not have to be triggered by a price increase application, cover a group of firms making up a particular market. Up to the beginning of April, 1979, the library of the University of Warwick has received 46 Reports published by the Commission - 33 Investigations and 13

Examinations. Of these six (1, 7, 16, 18, 19, E9)^{4/} were public sector or regulated industries, and are not considered here, and one (E8 - Television Hire Charges) was missing from the Warwick collection. This left the 39 Reports which were the source of data for this paper. Of these 39, numbers 23 and 25, were on the same market, and were paired, as were numbers 28 and 32.

The Investigations are quite consistent in their format. A typical layout begins with a Summary, and follows with sections on 'General Background', 'The Market and Competition', 'Pricing', a section on some special aspects of the company's operations, 'Financial Considerations' (margins, cash flow, rate of return), 'Conclusions and Recommendations', and, finally, any technical appendices. This set pattern made sorting the information a reasonably simple job. The Examinations are less homogeneous, but still easily accessible.

The data culled from the Reports was tabulated for each case under three headings, reflecting the standard industrial organisation paradigm. First, 'Market Structure' (market share, demand elasticity, etc); next 'Pricing Conduct' (describing the firm's pricing practices and the factors influencing it); third 'Market Performance' (evidence on rates of return, quality of product, levels and differences in costs, etc). The full table is given as an Appendix. For the Investigations, data on pricing conduct were separated into 'internal' and 'external' factors (denoted (I) and (X), respectively) according to whether they referred to decision-making within the firm not apparently related to decisions of other firms, or to explicit considerations (or lack of them) of the reactions to the pricing decision of competing

sellers. The division was not made for the Examinations, which do not always contain detail on the internal pricing practices of particular firms.

Two caveats are in order:

First, the 'data' shown in the Appendix are an interpreted sample from the information contained in a total of more than fifteen hundred pages of Price Commission Reports. Inevitably, I will have missed some pertinent facts, and misinterpreted others. Page references are given in the table which will help readers to check the accuracy of the database for themselves.

Second, the Commission was able to investigate fewer than one percent of the price increases proposed to it. Naturally, its choice of which investigations to undertake should be biased towards markets in which prima facie evidence of unusual susceptibility to monopolistic practices, such as a market dominated by a single seller, or with a well-known pricing agreement, is present. Thus the sample is not likely to be fully representative of the full range of market structures. In particular, markets with many small firms, and no recognisable market leader, are not numerous among the Commission's sample.

III. Pricing and Market Structure

The central proposition of industrial organisation is that there is some relationship between price charged and the size distribution of competing sellers in an industry. The pre-supposes the prevalence of

recognisable 'markets' - situations in which different producers sell similar (homogeneous) products, - so that a common price must somehow emerge. It is then proposed that the degree to which this price falls below the price that would be set were the industry a monopoly of one firm depends on the difficulties sellers have in coordinating their actions in their joint interest. This, in turn, is supposed to be a function of the size of individual sellers relative to the size of the total market, basically because, the smaller a seller's market share, the greater in proportion is the reward in increased sales, from lowering its price below that charged by the other sellers. As well, the chances of price-shading being observed and responded to by other sellers, may be less, the smaller is the individual seller.

The price-market structure hypothesis has been formally modelled for the two cases of explicitly colluding cartels (Stigler) and the situation when, for some reason, explicit collusion is not possible, and firms have to act on some assumptions about how other firms will react to the prices they set (e.g. Cowling and Waterson). In econometric work, which has, for the UK, nearly always used industry-level data from the Censuses of Production, the size distribution is proxied by some index of market structure, such as the n-firm concentration ratio, or the Hirschman Index. The econometric results give very little support to the hypothesis, with neither concentration ratios nor Hirschmans consistently showing a statistically significant relationship with the margin of price over costs (cf. Hazledine, 1979, for a survey of the UK studies).

However, this poor showing does not disprove the concentration-profitability model. It could be just that the econometric method is

too insensitive to pick up the structure-pricing process - one-dimensional indices of concentration may be too blunt to replicate the relevant features of the size distribution, and the requirement that one statistical model represent behaviour in all industries may be too strong. The case-study approach, in which resources are devoted to the study, in some detail, of behaviour in each firm or industry, can generate finer-grained data to allow the resolution of these questions.

The Price Commission Reports were first sorted into categories of market structures. This sorting process is informal, and there may result cases of particular markets being misplaced; however, I do not expect that this will seriously bias interpretation of the data. I then looked at the pricing process in turn within each of the categories, which are 'monopoly', 'dominant firm', 'duopoly', 'oligopoly', and 'atomistic':

(1) Monopoly (one supplier for the UK market). Reports 11, 21, 27.

The three monopolies set their own prices; in two cases, though, with explicit consideration of an entry threat - ICI (11) prices Sodium Carbonate so as to keep imports unattractive, and British Gypsum (21) prices below European levels, and has a policy of keeping a margin of 10% spare capacity, presumably so that any potential entrants will know that it can cut its prices if necessary (cf. Spence). Rizla (27) is a European multinational with control over several national markets.

(2) Dominant Firm (one seller or product with a market share several times that of the next largest seller). Reports 3, 9, 15, 17, 29, 30,

E1, E5, E13.

In one case - Womens' magazines (15) - the Report does not make clear what pricing policy is followed. In six cases (3, 9, 30, E1, E5, E13), the dominant firm or product is a 'price leader' - it sets a price which is followed by other sellers. In one of the two other markets - Cement (17) - there is a 'voluntary common price and marketing arrangement'; in the other - Optical Products (29) - in which there are very many retail outlets, a trade body circulates a price list which is used as a guide.

(3) Duopoly (two sellers together have a monopoly or near-monopoly of the market). Reports 6, 10, 12, 14, 28/32, 31.

Pricing conduct in the Holiday Centre business (31) is not revealed by the Report except to note that the biggest firm, Butlins, charges a higher price than a competitor at peak periods. In two cases (10, 12), the larger of the duopolists acts as price leader. In Sugar (6), Tate and Lyle sets a price premium over imports, but it is not clear how this is affected by competition from the other local supplier, the British Sugar Corporation. In the market for Sanitary Towels and Tampons, there is said to be 'little price competition', which perhaps means that Southalls and Tampax set their prices independently. There is evidence of customers believing that the two UK suppliers of Industrial Gases 'compete' on price, whatever this means, though the practice of requiring 7-year contracts may reduce the intensity of this competition.

(4) Oligopoly (several sellers together have a monopoly or near-monopoly of the market). Reports 2/E2, 4, 5, 13, 20, 23/25, 24, 26, 33, E3, E4, E12.

In two of the Reports - Allied Breweries (13), and The Daily Telegraph (33) - information is not given that would enable us to judge how far the particular firm's pricing conduct is affected by external factors. In the markets for Glass Containers (5), Maize Starch and Glucose Syrup (20), and Feedstuffs (E3), the investigations found evidence of parallel pricing by the firms in the market, in two of these cases lead by the biggest oligopolist.

The four biggest Trading Banks (2/E2) collude on their prices to the public sector, and price independently their private sector business. Fisons Horticultural (4) and RDT Tableware (24) set a price premium over their competitors. In these cases, and in that of the banks' private sector business, it is not clear, given that there are differences in prices between firms, just how the structure of these differences is affected by the relative size and number of firms in each market; in particular, just how far each seller feels constrained to take into account the reactions of other sellers to a change in its price. Similarly, it is not possible to assess the relative weights given to 'competitive market forces' and 'the need to ensure for the farmer an acceptable return on his outlay' when Fisons set prices for their agrochemical products (4).

In the markets for three products - Soaps, Detergents etc (23/25), Cigarettes (26), and Toothpaste (E12) - which all are heavily

advertised consumer non-durables with more brands than selling firms, the Commission found evidence of competitive price-cutting aimed at increasing market share; with soaps, detergents and toothpaste, this mostly took the form of posting 'temporary price reductions' from standard retail prices.

- (5) Atomistic Markets (many sellers, with no individual or small group controlling a significant market share). Reports 8, 22, E6, E7, E10, E11.

The Report on Book Publishing, etc (E6) does not explain how prices are set. In the markets for Beds (E7), Road Haulage (E10), and Jeans (E11), there were considerable variations in prices, even for identical products. Trust Houses Forte (22) vary their charges for hotel beds according to 'local market opportunities'. Coal prices in Wales (8) also vary widely, though one group is able to charge higher prices than average by circulating 'informal price lists' amongst themselves.

What generalisations about the relationship between price and market structure can be drawn from all this? It must be admitted that a number of the case studies are of little assistance, either because market factors are not mentioned at all, or because they are referred to in the context of 'competitive' pricing - a notion that cannot be safely interpreted without further elucidation, given the variety of meanings that it may take. In particular, the management consultants who helped prepare most of the Commission's Reports may have a quite different understanding of what it means to be 'competitive' than do the economists involved.

However, the number of informative Investigations is sufficient for certain quite clear regularities and tendencies to emerge. The most interesting of these are discussed next:

(1) The standard oligopoly model is not supported as a generally applicable theory of market pricing. In other than monopolistic or atomistic markets, limits to the ability of firms to coordinate their actions appeared to affect price in only three of the seventeen interpretable cases. In ten instances, the industry followed a price leader, and, in the other four, price lists or other methods of parallel pricing were discovered. Further, firms in the three non-coordinated industries (Soaps, Detergents, etc., Cigarettes, Toothpaste) all also compete for market share with unusually high expenditures on marketing and advertising, so that it is not necessarily true that their oligopolistic structure results in prices lower than would be charged by a monopolist, given that the latter might choose to advertise less, and thus have lower costs than oligopolistics.

(2) Oligopolistic difficulties do not occur (in the sample) when the market has one firm markedly larger than all others. Therefore, we might expect that a measure of the size distribution which does not reflect differences in the relative sizes of the biggest sellers, such as the n -firm concentration ratio, would be inferior to a measure such as the Hirschman index, which increases with unevenness in market shares. In any case, though, we should not expect to find a stable relationship between difficulties of collusion and the size distribution. Successful price cartels are found in even atomistic markets, as the example of the West Wales Coal Merchants (Report 8) demonstrates.

(3) Another restriction on the general applicability of extant oligopoly theories is their limitation in scope just to firms at present selling in a market. The reports reveal that in two of the three markets in which one seller has a UK monopoly, the firms are specifically concerned in their market conduct to maintain their monopoly position against a perceived possibility of entry from imports or a new firm setting up in the UK. That is, potential sellers may be important. However, the Reports give no hint of pricing to limit entry of new firms in any of the non-monopolized markets. I expect that this is because, to a firm in an oligopolistic group, 'entry' just means losing some of its present market share to another firm, and it does not additionally matter whether the other firm is at present selling in the market, or is just in a position to potentially begin doing so. Given, then, that only in three markets (as noted above) did price appear to be an important tool for competing on market share, we should not find much entry-limiting pricing in markets with more than one seller currently in operation.

If correct, this conjecture would provide some ex post justification for the discrepancy (about which I have complained before - Hazledine, 1979) between entry-limiting and oligopoly pricing models. In the former, the assumption of monopoly or dominant firm is used in order to abstract from any coordination problems between existing sellers; whereas these are the sole focus of attention in oligopoly models, which, however, ignore the possibility of new firms entering an industry as a result of the actions of the existing oligopolists. It may be that the problem posed by each group of models is appropriate, but each to a different market context. (This is not to say the problems are correctly solved - indeed, both entry-limiting and oligopoly models appear, on the

evidence of these case studies, to be in fundamental error in ascribing to pricing a crucial role as a market-share affecting instrument.

Where firms do get involved in active attempts to increase their sales, they appear in most cases to do so by attempting to differentiate their product from their competitors' in various non-price dimensions. The implications of this for the theory of price will be considered in the next section).

(4) Pricing in the 'atomistic' markets was radically different from the textbook ideal-type of 'perfect' competition. In all six of them there was considerable variation in prices, even for apparently identical products. Nor was there any indication that each seller could sell all it wished at the price charged. There are at least two possible explanations for this. First, the absence of Walrasian auctioneers, or, in general, of perfect information amongst buyers, means that price differences are not necessarily arbitrated away. Second, the reason that these markets are atomistic may be that distance is an important factor, to either seller or buyer, so that each seller in fact effectively operates in a market much smaller than the total industry market. That is, even atomistic sellers are differentiated from each other by location, and may therefore possess some 'market power' - face a downward sloping demand curve. If so, then something like the Chamberlin model of 'monopolistic competition' would provide a more relevant ideal-type for the situation of markets with many sellers than does the concept of perfect competition. Indeed, unless some actual examples can be found, we might question the usefulness of studying perfect competition at all, at least outside of agricultural economics.

IV: Price Setting within the Firm

The evidence of the previous section suggests that prices in most markets are set by particular firms, not by groups of firms engaged in oligopolistic interdependent decision-making. This does not imply that other firms are not important in a firm's price decision, but rather that their actions are taken as given to this - pricing is a decision-making process that is internal to the firm.

The Reports contain a substantial amount of information about the internal price-setting policies of firms. In 29 of the 36 markets we have a specific description of some aspect of the pricing process. 5 of the other 7 markets are atomistic, made up of small firms whose internal behaviour was not examined in detail by the Commission. We noted in the previous section that prices and margins do vary considerably in these markets, but we cannot know from these data how far this is due to differences in market power of sellers, and how far to the absence of auctioneers and perfect information leading to more-or-less random price differences, which may or may not persist.

Four clear categories of market-related pricing practices emerge from the Reports. They are:

(1) Uniform Delivered Prices. This is the practice of charging the same price for goods delivered to customers, no matter what distance the goods are transported. Its purpose appears to be to discourage small producers from setting-up in local markets where their proximity to customers would give them a cost advantage over the big national-market

sellers, who tend to have production centralised in large plants. In effect, customers nearer the point of production subsidize those further away, with the result being to restrict entry into the market.

Uniform delivered prices (or, at least, prices not fully reflected delivery costs) were discovered by the Commission in eleven markets (Reports 3, 5, 6, 10, 13, 14, 17, 21, 26, 27, E3).

(2) Size-of-Order Discounts greater than the cost savings involved. Size-of-order discounts are common, and may just reflect savings from spreading fixed transaction costs over a larger order. As well, they may result from the greater bargaining power of large customers. Order size discounts not fully accounted for by cost savings are found in at least five of the markets (5, 9, 10, 13, 28/32). They are at present being examined by the Monopolies Commission.

(3) Selling the same product at different prices in different markets. 'Charging what the market will bear' in different markets (e.g. domestic/export, retail/wholesale) is specially mentioned in seven Reports (10, 13, 22, 24, 27, 30, 31).

(4) Selling different products at different profit margins. This is a quite common practice. The Commission found examples of margins differing in response to market forces in fourteen of its Investigations and Examinations (3, 4, 5, 13, 14, 17, 23/25, 24, 28/32, 29, E1, E3, E4, E13).

These figures probably underestimate the prevalence of

non-cost related pricing practices in the markets examined, since there were a number of instances of size-of-order discounts that were possibly not fully explained by costs (3, 6, 14, 30, E12), and since it is unlikely that the Commission uncovered and reported all cases of differences in margins. Even so, at least one of the four forms of non-cost related pricing was reported in 24 of the 29 markets for which information was presented.

A reasonable inference, then, is that, whatever the determinants of changes in prices, the cross-sectional structure of prices fails to fully reflect the opportunity costs of the factors of production. The next important question is: how quantitatively significant are these distortions in the price system? The Reports do not usually give detail on the numerical magnitudes of differences in margins, but divergences of 50% or more are not uncommon (14, 17, 24, 29, E4). Given the inter-relationships between products through the input-output process, it is likely that the structure of prices in the UK is thoroughly riddled with what economists would call 'uncompetitive' distortions. The magnitude and persistence of these deviations from opportunity costs, and their significance for welfare and efficiency, are surely worthy topics for future research.

The data on internal pricing practices of firms reinforce the impression taken from the information on external factors affecting pricing, that price is not generally an important instrument used by firms to increase their sales. Indeed, it seems that demand is typically price-inelastic - this is stated specifically in five cases (4, 14, 15, 33, E4), but is also implicit in the very process of applying for a price

increase which is the original cause of the Commission making an investigation - in no case does the applicant reveal any concern that its proposed price increase would result in a loss in sales. Therefore, in shifting from the industry or market centred models of perfect competition and oligopoly, for which few empirical counterparts can be found, to a theory based on the individual firm which is able to 'fit' the data culled from the Commission's Reports, we cannot simply take-over the orthodox model of the firm with some 'monopoly power' - that is, facing a downward sloping demand curve in the price-quantity plane - because this is not consistent with price-inelastic demand. A profit-maximising monopolist believing its demand curve to be inelastic would always increase price and thereby make more profits.

I have suggested elsewhere (Hazledine, 1978, Part II) that the proper resolution of this may be to drop altogether the premise that price and quantity are, at the margin, jointly determined, and propose, instead, that they are essentially independent variables. Price is the result of an implicit or explicit bargaining process, in which the outcome depends, for each transaction, on the relative opportunity costs for buyer and seller of having to trade elsewhere, and on feelings about the 'fairness' of the distribution of the gains from trade. Quantities are not usually at issue in the bargaining process, except in the all-or-nothing sense of whether the deal goes through or not - pricing is basically a matter of distribution, not allocation. Given price, a firm will make more money the more it can produce and sell - there is no decision to be made about optimum output - more is better. Achieving more output is what most of the firm's managerial efforts go into; on the marketing side by attempting to differentiate the product from

others of similar price, and to persuade customers that such differentiation best meets their needs, and, within the plant, to maintain quantity and quality levels of output sufficient to meet demand.

Thus, a firm may expect to be able to raise its price after its costs have risen without losing sales, because its customers find reasonable such an excuse (and may take it as a signal that prices of alternatives are also likely to rise), but risk losing a significant proportion of its market to rival sellers (some possibly new entrants) should it attempt the same price increase with no justifying cost changes. Though the 'demand curve' observed ex post is typically price-inelastic, it may not be ex ante - the observed curve is not a locus of points in price-quantity space from which the firm can freely choose a preferred position.

This theory of the behaviour of firms (which can include the orthodox monopoly model as a special case when price does happen to be an important argument in the sales function of the individual firm, as in some of the consumer non-durable markets investigated in these case studies) may not be the only one that is consistent with the empirical evidence. But it does seem to match the facts revealed by the Price Commission's Reports, as well fitting-in with the econometric evidence at the industry level (cf. Hazledine 1979). None of the orthodox micro-economic pricing models - perfect competition, oligopoly, monopoly - can claim as much.

V. Market Performance

The superiority of case studies over econometrics as a method of testing theories empirically is particularly marked for the investigations of pricing conduct reported in the previous two sections. Pricing is an internal matter to firms, and details of internal behaviour do not usually surface to be recorded in the data sets upon which econometricians rely; but are, of course, just what the investigators on a case study are employed to ferret out.

However, when it comes to evaluating performance - the consequences of conduct - the narrowness of focus of case studies may place them at a disadvantage. As an important example, we must admit that the Commission's Reports do not allow us to answer the interesting question of whether a firm's market share is in general correlated with its profitability. For this we would need not just data on rates of return for the firms investigated (which the Reports usually give), but also comparable data for the other firms in each market, and this was usually beyond the scope of the Commission's investigators. To examine the profitability-market share relationship, econometric analysis of a wider sample of a few publicly available variables (such as that assembled, though not used for this purpose, by Cowling and Kelly for their study of UK Food Manufacturing companies) would be more likely to succeed.

Nevertheless, the Reports do provide sufficient data for the analysis of at least two important dimensions of market performance, both with implications for economic policy. First, we will look at the relationship between market share and product quality; then look for any

linkage that may exist between market structure and cost efficiency in an industry.

(1) Market Share and Product Quality

Does the success of the firm with the largest sales in a market tend to result from that firm having been able to offer a product regarded by buyers to be superior to its competitors', or are other, less desirable factors, such as skill at taking-over other firms, or at bankrupting small competitors, usually responsible for achieving a dominant position? In the twenty five markets for which we can identify it, the firm with the largest market share is reported by the Commission to have a product which is superior to its competitors in seven cases (3, 4, 6, 20, 30, E1, E13). In the other eighteen markets, differences in product quality are not commented on. In no market is the largest firm said to produce a relatively inferior product.

Thus, there does seem to be a tendency for high market share to be associated with a superior product, either because a high share somehow enables product quality to be improved, or, more likely, because a high market share is the result of offering a better than average product.

The Reports do not have a lot to say about other factors contributing to the success of the largest sellers, since such are not usually relevant to the assessment of price increases that is the Price Commission's ostensible brief: the Monopolies Commission reports would be a more promising source of information on such things as mergers,

take-overs, and predatory practices.

Does it appear that market leaders generally use their position to raise their prices above the levels charged by other firms in their market? Differences in price were noted for five of the twenty four identified largest-share products. Four of these were among the seven 'superior product' firms - Metal Box Ltd., sells its food cans at prices which its competitors find 'difficult to match' (3, p.5), whereas Fison's like to charge a premium on their horticultural products (4), Tate and Lyle set a price for their sugar that is higher than the price for imported sugar (6), and Danish bacon is more expensive than the domestic product (E1). The fifth example is Butlin's, which apparently charges more than 'a major competitor' at peak demand periods (31).

Thus, although most of the factors contributing to market share success are not identified in the case studies, there is evidence that it does have something to do with product superiority, with this sometimes, but not always, going along with a price premium. There is very little evidence here of pure market power pricing - that is, of relatively large sellers charging higher than average prices for a product of average or inferior quality.

(2) Market Structure and Cost Efficiency

Does high market share go with superior production efficiency? The Reports commend market share leaders for achieving 'superior' cost performance in six cases (3, 9, 21, 29, E3, E5). In only one of these (3) was the leading firm also singled out for producing a superior

product, so that it does not appear that there is a tendency for what we might call 'market efficiency' and 'technical efficiency' to go together - an interesting finding. The Commission's investigators were, in general, more willing to judge cost efficiency on some absolute standard than relative to competing firms in a market; probably because they did not usually have the sort of detailed comparative information that would have permitted them to make confident assessments of the relative efficiencies of particular firms. In the twenty eight markets which have an identified largest firm (including the three monopolies) this is judged to be 'efficient' in thirteen cases (3, 4, 14, 20, 21, 22, 27, 28/32, 29, 30, E3, E5, E13). In ten cases no judgement is offered (2/E2, 6, 10, 12, 15, 23/25, 31, 33, E1, E12), and in the other five (5, 9, 11, 17, 26) significant examples of inefficiency are cited. Since in only a few cases is efficiency measured against a suitably objective benchmark, such as costs in other countries (e.g. 13, 17, 21), and given that it is in the interest of the companies being investigated to present their efficiency performance in as favourable a light as possible, we should be cautious in interpreting these data. For what they are worth, they suggest that there is a tendency, which is by no means universal, for leading firms to achieve satisfactory levels of operating efficiency.

The instances of costs being higher than they should be are better documented than the compliments paid to apparently 'efficient' operators, perhaps because the Commission liked to be on firm ground before venturing to criticise (if this is so, then the incidence of inefficient practices is likely to be under-estimated from the case-study sample). Examples of needlessly high costs are particularly interesting as illustrations of the notion of 'X-inefficiency', or monopoly slack

- that is, of market power being used to allow costs to rise (or to remain at high levels) rather than being paid to shareholders as monopoly profits. It is possible that the tendency for costs to rise as prices do with increased market power is a factor in explaining why econometric models relating measured profitability (the margin between price and costs) to market structure typically show so little statistical significance. An advantage of these case studies is that they do, at least in some instances, break down profits into its price and cost components.

In addition to the five leading-market share firms cited above, two firms in oligopolistic markets (13, 24) have their cost performance criticised. In five of the seven cases, the main problem is disparities in productivity between plants within the firm producing the same product - differences of 50% and more being quite common. In four other markets (29, E3, E5, E12) efficient firms provide a 'price umbrella' which allows the higher-cost plants of other firms to survive. In two of these cases (29, E5) the Commission explicitly concludes that market performance would be improved if the largest firm increased its market share further, by taking over the sales of the highest-cost fringe of their industries.

Thus, in at least eleven markets, the Commission has provided solid evidence of 'monopoly slack' - of high prices being used to preserve high-cost capacity, with this capacity not necessarily belonging to the firm whose market power is responsible for maintaining the price umbrella. The determinants and significance of relationships between levels and rates of change of costs and industry market structure are a virtually unexplored area of industrial organisation economics: surely their potential importance is such that a determined research effort (which

would probably need to devote much of its resources to the collection of cost data at the individual plant and firm level) would be worthwhile.

VI. A Comparison with the Study of Hall and Hitch

In a famous paper, the Oxford economists R.L. Hall and C.J. Hitch reported and interpreted a survey of the pricing behaviour of thirty eight firms. Their method was to approach thirty eight 'entrepreneurs' with a questionnaire, and follow up these with personal interviews. Although this procedure requires many fewer resources, and yields much less detail, especially on quantitative aspects of conduct and performance, than the full investigations carried out by the Price Commission, many of the results can be compared with the findings from the Case Studies reported above.

Hall and Hitch discovered that 30 of the 38 firms normally priced according to some variant of the 'full cost' principle - that is, price was set at unit costs (including an allowance for overheads) plus some mark-up for profits. They inferred from this that 'a large proportion of businessmen make no attempt to equate marginal revenue and marginal cost in the sense in which economists have asserted that this is typical behaviour' (p. 125).

In so concluding from the answers to their questions on pricing procedure, Hall and Hitch may have been guilty of taking too literally their businessmen's 'cost-plus' terminology, having paid too little attention to the important question of what determines the size of the mark-up - in particular, to the possibility of mark-ups differing over time,

and across products, in response to different market conditions. In fact, an analysis of replies in Hall and Hitch's Appendix shows that, in addition to the eight firms who clearly did not use the full cost method, all but four (a8, f2, d5, all) of the respondents admitted to some tendency to vary their mark-ups in response to market forces. That is, 34 of the 38 firms describe their pricing conduct in terms which are consistent with the practice, albeit at a heuristic level, of marginalist pricing. In this, their results are similar to the findings of general non-cost related pricing from the Prices Commission database, reported above in section IV.

However, other evidence in their Appendix tables seems to run strongly against the marginalist position. In most cases demand is perceived to be price inelastic, especially with respect to cuts in price, and there is never a hint of the businessmen being unwilling to accept an increase in orders at the current price, as would be an implication of marginal revenue being equated to marginal cost. Thus, the survey of Hall and Hitch broadly supports the position taken in this paper, that pricing and selling are best thought of, in general, as independent activities, at least so far as changes at the margin are concerned.

A difference in results between the two studies, though, is the extent to which perceived price inelasticity is due to assumptions about reactions by competitors to a firm's change in price. In contrast to the small amount of attention to competitors' pricing policies revealed by the Commission's Case Studies, fifteen of Hall and Hitch's 38 firms indicated that a lack of co-ordination with their competitors was a factor constraining changes in their own prices. The difference probably

reflects the different market conditions of the late-1930s, when the Hall and Hitch study was carried out, and the late-1970s of the Price Commission's Reports. Markets were much less concentrated then, and industry agreements fewer (cf. Gribbin, 1977, p.28), and trading conditions were still chronically depressed as a result of the Great Depression earlier in the decade.

VII. Summary and Conclusions: Implications for Theory and Policy

A. Implications for Theory

Analysis of the results of the Price Commission's Investigations and Examinations has generated several striking implications for the direction in which theorising about industrial organisation economics should go:

(1) The proper focus of attention for general theories of market behaviour should be the firm (or the product), not the industry. This is because we found that, in the great majority of cases, pricing is a process internal to the firm, not one requiring some sort of tacit or explicit external dealings with competing firms. In particular, the 'problem' of co-ordinating prices in an oligopoly in which explicit collusion has been ruled out does not seem to be generally relevant. This does not imply that firms face no constraints from the availability of substitutes for their products; just that such constraints are generally taken as exogenous to the firm's pricing process.

(2) However, the modelling of pricing in the firm cannot simply

take-over the existing theories of monopoly or monopolistic competition, since the simple price-quantity trade-off on which these are based appears to be rare in reality. Indeed, price and quantity seem in general to be independent variables, with price (or the margin over costs) being a distribution variable determined by the firm's monopoly power, and quantity sold set by its ability at selling (or 'marketing') its product largely through non-price instruments such as product design, innovations, advertising, and control of sales outlets. Nor can these marketing factors simply be tacked on to the theory of the firm in the orthodox way, by including, for example, the level of expenditure on advertising as an argument, with price, in a demand function. The implication of this is that the demand curve can be shifted (in the price-quantity plane) by simply spending more money on marketing inputs implicitly assumed to be in perfectly elastic supply. Instead, marketing ability appears to be a more-or-less fixed factor, possessed in varying degrees by different firms, according to their particular histories, luck, and the entrepreneurial skills of their management organisation.

(3) The appropriate pricing model suggested by these considerations would focus on the vertical relationship between buyer and seller, rather than, as in traditional oligopoly theory, horizontal market linkages between competing sellers. Such a focus on buyer-seller transactions appears to lead naturally to viewing pricing as a bargaining process, in which the outcome - the division between buyer and seller of the gains from trade - depends on the relative strength of each party's bargaining position - that is, on their market power. I have previously attempted to develop such a pricing model (Hazledine, 1978, part II), and the findings from the Price Commission's Case Studies seem at least to be

consistent with this.

(4) We just do not have any theories of market structure and costs cohesive enough to be tested against the Case Study database. The rather widespread and quantitatively significant divergences found in cost performance, both inter- and intra-firm, do strongly suggest that it would be worthwhile for industrial economists to devote some time to this (at the expense, perhaps, of grinding out any more poorly-determined econometric models of the market-structure-profitability linkage).

B. Implications for Policy

(1) One of the two traditional approaches to industrial performance policy is to act on the structure of an industry in the hope of thereby improving its performance, by intervening either when some measure of market concentration exceeds a level thought to be critical, or when the market share of a particular firm becomes larger than a certain percentage of the total (the latter is the criterion of the UK Monopolies and Mergers Commission). The principle of the structural approach is not supported by the evidence of these Case Studies. Concern with market concentration follows from oligopoly models in which the ability of firms to collude or otherwise coordinate their actions to increase price is a function of the size distribution of sellers, but we noted in section III that firms do not generally appear to be constrained in their pricing decisions by concern about their competitors' reactions, whatever the size distribution of their market. Of course, seller concentration might well enter, for some reason, as a determinant of monopoly power in the bargaining process proposed above in sub-section A as the basis

of a realistic model of pricing, although the econometric evidence, for the UK at least, suggests that this is not generally so (Hazledine 1979).

As for the market share criterion, we noted, in section V, evidence that the biggest seller in a market often, perhaps mostly, performs better than average in product quality and cost efficiency, so that we cannot support a general proposition linking market leadership to unsatisfactory performance. However, the particular cases investigated by bodies such as the Monopolies and Mergers Commission are often picked out for attention because of a rapid change in their market share. The reasons for this, such as unusual merger or takeover activity, may often reflect practices which an investigation will find to worsen market performance, so that, although other instances of performance-affecting practices which do not activate the market share criterion will pass unhindered by structural policy, the particular cases chosen for investigation may still lead to piece-meal improvements in market performance. That this is not always so, however, is revealed by the experience of the Monopolies Commission, which found only one in eight of the 'monopolies' that it examined to perform badly enough for their high market share in itself to be against the public interest (Gribbin, 1977, p.37).

(2) The second traditional approach to policy is to act on conduct, by controlling firms' pricing practices. Such policies have acted on both external and internal agreements and procedures - on horizontal linkages between competing sellers, and on the terms of the vertical transactions between buyer and seller. In the ten years after the enactment of the 1956 Restrictive Practices Legislation, price cartels, which had become common with the officially-encouraged spread of Trade Associations

in World War II, had 'virtually disappeared' (Gribbin, 1977, p.25). No doubt policies hindering or even banning outright price cartels make things more difficult for firms wishing to exercise market power over prices, but the Case Studies rather suggest that, by the end of the 1970s, alternative collusive devices to open cartelisation, such as the emergence of a firm as a price leader, have succeeded in eliminating active price competition between sellers in all but a few consumer goods industries.

As for policies countering non-competitive or 'restrictive' practices in the dealings between firms and their customers; we cannot know what conduct would have been in the UK in their absence, but the prevalence of non-cost related pricing practices noted in section IV does demonstrate that their success has been less than complete.^{5/} It might be possible to formulate laws to restrict such practices as Uniform Delivered Pricing, Non-cost related size discounts, and discriminatory pricing, perhaps placing the onus on firms to demonstrate that their conduct was justifiable on cost considerations, though the complexity of regulations that might be required, and the possibilities of diversion of resources into evasion, as well as the resources involved in enforcement, should be carefully examined.

(3) A third approach, which has not been explored much by industrial organisation economists, is to act upon performance itself, by setting prices directly to achieve the desired performance, rather than by modifying structure or conduct in the hope of thereby inducing firms to perform in accordance with the goals of policy. The criterion of direct price policies would be to adjust relative prices so that these reflect just differences in opportunity costs - that is, to eliminate those

portions of price differentials generated by differences in market power (the non-cost related practices of section IV). The Price Commission, which so clearly in its Reports documents the existence of these divergences of price from cost, has the power to recommend that such be eliminated, but has not usually gone further than admonishing the firms concerned (exceptions are Reports 4 and 17).

Economists are notoriously unattracted by the idea of price controls. Their objections are usually based on a premise that bureaucrats cannot know enough to replace 'the market' as the price setter. This premise is seldom examined in any detail, and, indeed, does not seem to stand up to scrutiny, for at least two reasons:

(a) Prices are set, not by a 'market', but by firms - often, one firm acting as price leader, or by a more-or-less informal collusive arrangement between firms. The information available to the private sector bureaucrats who thus set prices could easily be made accessible to public sector bureaucrats, such as those of the Price Commission. Transferring price-setting to the public sector would have the beneficial side-effect of allowing trade associations and the like, which can be useful institutions for sharing technical and market information, to flourish, without thereby increasing the risk of collusive price-setting.

(b) Bureaucrats will, of course, sometimes make mistakes - get prices 'wrong' according to their own criteria. However the magnitude and prevalence of non-cost related pricing practices uncovered by the Reports imply that the price structure is at present so riddled with non-competitive elements that a 'wrong' price would have little effect - there is

plenty of monopoly slack to absorb mistakes. As the price controls got nearer to achieving their objective of bringing prices into line with opportunity costs, the consequences of mistakes would be more serious - setting a price that failed to cover costs - but perhaps this, a problem of success, could be faced when the time came, and after the controllers had built up expertise in running the price control system.

It is important to distinguish this price-setting performance policy from the so-called 'price controls' that have often been a part of recent anti-inflation policies. The former acts directly on price, and only at the level of the product or commodity. The latter actually operates on profit margins, not price, and has to be applied individually firm-by-firm - it is, in fact, a conduct policy prescribing the formula to be used by firms in increasing their prices, and has been rather unsuccessful, both in its direct effect on inflation, and in its secondary dilution of the incentive to reduce costs (cf. Cockfield for a fairly sympathetic account of the UK controls)

(4) Gribbin has noted the concern of the 1950s that cartels allow inefficient firms and plants to survive under a price umbrella (1977, p.19). The evidence assembled in Section V reveals that substantial differences in cost performance are still found, even after most of the cartels have been disbanded. As noted in the previous sub-section, this phenomenon has not been subjected to the sort of analytical scrutiny which could lead to well-founded proposals for industrial policy. We can note, though, that the presence of price umbrellas undercuts the laissez-faire arguments of Demsetz and others that, because the extra profits earned by the biggest firms are due to their greater efficiency, no policy action should be taken against them. If prices do not follow the costs of the most-efficient firms so that

higher-cost operators are forced either to improve their performance or exit from the market, the continued survival of the latter probably generates a welfare loss which is of legitimate concern for public policy.

(5) The question of the determinants of price is of importance to macro-economic matters such as inflation and unemployment. If price were, for example, wholly determined by a fixed mark-up on costs, then macroeconomic measures to increase aggregate demand in order to reduce unemployment could be successful so long as costs (especially wage costs) were controlled, for example, by incomes policies. If, however, price is directly responsive to market conditions, then a policy to increase real output by expanding nominal aggregate demand could founder on an increased rate of inflation, even if wages were controlled. In this case, direct price controls would be the appropriate complement to aggregate demand policy. One group which is particularly keen on the cost-plus pricing hypothesis is the Cambridge Economic Policy Group (e.g. CEPR, 1979, p.32). The evidence from the Case Studies that the price structure is pervasively affected by market conditions, although not direct evidence that price changes are also so-influenced, should at least make us sceptical of the extreme cost-plus hypothesis, since market power is likely to vary cyclically (as well as across markets), as such factors as the degree of spare capacity and the length of delivery queues vary with aggregate demand conditions.^{6/}

(6) Although our concern with the Price Commission Reports has been as a sophisticated source of data from which to test theories of market behaviour, it is perhaps worth commenting briefly on the Commission's ostensible role as an anti-inflation agency. The resources required for

its detailed case studies were such that the Commission was able, in its first year, to investigate fewer than 1% of the intentions to raise prices notified to it.^{7/} In most cases the result of its investigation was to impose no restriction on the proposed increase. In fact, the value, in lost revenue to firms, of the limits that were imposed seems to have been no more than £5 million,^{8/} which is less than the Commission's annual budget. The Commission claims that there is a spill-over effect - it has calculated, as a 'very broad order of magnitude' the 'permanent savings from price increases withdrawn or reduced, or postponed, either formally or informally' at around £120 million in its first year of operation (Price Commission, 1978, p.4). Whether a more than twenty-fold spill-over effect is plausible I am not in a position to judge; even if it is, £120 million is a small fraction of the amount revenues would need to be reduced to lower the inflation rate by one percentage point. It seems reasonable to suggest that the Commission's methods suit it more to a role in industrial policy than to being an anti-inflation agency.

Footnotes

- 1/ Cf. Hazledine, 1979, for a survey of the econometric results for the UK.
- 2/ For example, ten of the papers in Volume 26 of the Journal of Industrial Economics (1977/78) used data on a single industry or market.
- 3/ The following description of the Act is based on Gribbin, 1979, p.1.
- 4/ The Reports are listed in the Appendix table. They are numbered by the Price Commission. Here we use the prefix 'E' to distinguish Examinations from Investigations.
- 5/ Contrast these findings with the Liesner Committee's sanguine assertion that the 1956 Restrictive Practices Act has 'largely eliminated manufacturing output restrictive practices' (p.25).
- 6/ The Cambridge group call on the study by Coutts et al as evidence that prices in the UK are determined solely as a fixed mark-up on 'normal' costs. This is unsatisfactory since (1) their model is only moderately successful statistically in 'explaining' changes in prices, and (2) the 'demand' variable that they test and reject is a 'straw man'. Coutts et al use the ratio of actual to trend output, which is as plausibly interpretable as a supply as a demand factor (Cf. Hazledine and Watts 1977). It is not surprising that they find about as many negative as positive coefficients for this variable in their price change regressions.
- 7/ Gribbin, 1977 p.9.
- 8/ My estimate of the sums involved when restrictions were recommended is (4) - £200,000 (8) - ? (small), (9) - £2 million, (15) - £1 million, (21) - £1.5 million.

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Reference	Market Structure	Pricing Conduct	Market Performance
2. Barclay's Bank - Charges for Money Transmis- sion Services 9.1.78	Four major clearing banks	(I) -set tariff for personal customers -negotiated tariff for business customers, cost-related (6) (X) -tariff for public sector customers set collectively with the other clearing banks (3)	
3. Metal Box Ltd - Open Top Food & Beverage and Aerosol Cans 9.1.78	-growing market (10) -MB has 70% market share (14) -few close substitutes (11)	(I) -large customers get special discounts ('difficult to judge' how far these are cost-related (5)) -uniform delivered price (6) -differences in margins, said to reflect differences in risk (6) (X) -price leader (14)	superior costs, prices, quality (5)
4. Fisons Ltd - Agrochemical & Horticultural Products 17.1.78	-(Agrochemical) 50 sup- pliers, Fison's had 13% market share (3rd biggest) in 1976 (6) -(Horticultural) 32% share of garden pro- ducts, 23% of profes- sional market (9) -demand 'price insen- sitive' (11)	(I) -(agrochemical) 'pricing policy is to maximise profits subject to competi- tive market forces and to the need to ensure for the farmer an acceptable return on his outlay' (7) -(horticultural) 'pricing policy is to set a premium to reflect Fison's view that their products were supe- rior' (10) -higher margins on consumer market products (15)	'generally well managed and efficient' (8)
5. UG Glass Con- tainers Ltd - Prices of Glass Containers 23.1.78	-SCR5 = 95% (11) -UGGC has 30% market share -increasing import com- petition (share = 9%) (11)	(I) -'substantial disparities' in margins on sales to big and small customers (13) -differences in profitability between products reflecting 'competitive pressures' (5) -uniform delivered prices (14) (X) -'pronounced' price parallelism between sellers (9)	'marked disparity' in labour costs between comparable plants (up to 50%) (5)

Reference	Market Structure	Pricing Conduct	Market Performance
6. Tate & Lyle Refineries Ltd - Sugar & Syrup Products 15.2.78	-retail sugar market share = about 60% (declining with competition from British Sugar Co.) (12)	(I)-published volume discounts (13) -negotiated discounts for larger customers (13) -uniform delivered prices (13) (X)-price premium over imports, reflecting supply and brandname advantages (13)	rate of return 'significantly higher' than for av. UK manufacturing (17)
8. Margins of Coal Merchants in West Wales 27.2.78		(X)-'informal lists' of prices circulated and, mostly, charged (7) -wide range of prices in Wales (3)	'no convincing reason' why West Wales prices should be as high as they are (11)
9. The Ever Ready Co. (GB) Ltd - Dry Primary Batteries 13.3.78	-stagnant market -Ever Ready's share 69% (8) -company has more capacity than the total UK market size (8)	(I)-discounts to major purchasers bear 'very little relationship' to differences in distribution costs (15) (X)-price leader. 'minimal' retail price competition (9)	-variations in plant ages and costs (11) -'rigorous' quality control (9) -company may have been 'inflexible' in its attitudes to changes in the market (21) -lower costs than competitors (1)
10. Cadbury Schweppes Foods Ltd - Grocery Products 30.3.78	-drinking cocoa and chocolate market share = 60% (Rowntree the next biggest) (11)	(I)-discounts for bulk and for tying customer to CSF; don't reflect costs (39) -margins differ on retail and trade sales (20) -uniform delivered prices (22) (X)-CSF the price leader, Rowntree the follower (11)	
11. Imperial Chemicals Ltd - Sodium Carbonate 12.4.78	-sole UK manufacturer -low market growth rate -m.e.s.=25% of UK capacity, and new entrant is not likely to have access to low-cost materials, nor to ICI's 'know-how' (6)	(I)-has long-term 'evergreen' contracts requiring exclusive buying from ICI (6) -insists on controlling dist'n (9) (X)-explicit strategy of limit-pricing to keep out imports (10)	stagnant productivity in old plants (production process is over 100 years old) (8-9)

Reference	Market Structure	Pricing Conduct	Market Performance
12. Weetabix Ltd - Cereal and Muesli Products 12.4.78	-Kellogg has 54%, Weetabix 21% (1976) (14)	(I) -two-tier size discounts 'appear to be reasonable' (11) (X) -Kellogg the price leader (14) -extensive product differentiation (14); marketing costs 8% of revenue (9)	- 'substantial' industry profits (14) (14) - 'shows a proper concern with improvements in efficiency' (2)
13. Allied Breweries (UK) Ltd - Brewing and Wholesaling of Beer and Sales in Managed Houses 26.4.78	-2nd biggest market share (no brewer dominant, but each has 'significant degree of protection' from market forces (9))	(I) -discounts to larger off-licence customers 'well beyond' levels justifiable on cost grounds (11) -sales to tied outlets more profitable than sales to free houses (8) -uniform delivered prices (10) -margins vary on different beers (10) (X) -prices 'historically and competitively determined' (10)	-difficulties after 'rationalisation' due to longer lines of communication, inadequate motivation (7) -productivity higher in other countries due to narrower product range, point of application of duty, recovery of spent materials (24)
14. Southalls (Birmingham) Ltd - Sanitary Protection and other Hygiene Products 8.5.78	-SCR4=99% -Southalls' share of Towel market = 62%; of Tampons = 38% (Tampax has 62%) -demand 'price insensitive' up to 10% increase (20)	(I) -discounts with size of order -distribute 90% themselves; distribution costs 11% of sales value (14) -return on Tampons about twice the average return of the company (16) (X) -price competition of 'little significance'; advertising costs 10% of sales (9)	-efficiently operated (21) -high rate of return on capital relative to UK industry (21)
15. IPC Magazines Ltd - Increases in Cover Prices 22.5.78	-have 76% of 'womens weeklies' market (Thomson has 23%) (6) - 'little consumer reaction to increases in price' (10), but, 'lower cover price tends to encourage a larger circulation' (9)	(I) -secure 'favourable terms' for their advertising, despite competition from other media (9) -have kept down rates for freelance editorial contributions with their market power as buyers (12)	

Reference	Market Structure	Pricing Conduct	Market Performance
<p>17. Associated Portland Cement Manufacturers Ltd - Increases in Cement Prices 12.6.78</p>	<p>-declining market (10) -7 manufacturers (8) -APC has about 62% of capacity and sales (8)</p>	<p>(I) - 'basing point prices', but do not fully reflect transport costs (49) -margin on Portland cements double that on special cements (25) (X) - 'voluntary common price and marketing arrangement' in the industry (9) -quality competition (12)</p>	<p>-cheaper 'blended' cement popular in Europe, not available in UK -output/head twice as high in Europe (39) -variation of nearly 50% between lowest- and highest-cost APC plants (48)</p>
<p>20. CPC(UK) Ltd - Increases in the Prices of Maize Starch, Glucose Syrup etc. 26.7.78</p>	<p>-4 groups of UK manufacturers (16) -CPC the biggest (share = one third) (19)</p>	<p>(I) -price negotiated (20); premiums and discounts not directly related to cost savings (19) -consumer sales subsidized by industrial sales, in which CPC has a dominant share of the market (39) -uniform delivered prices (23) (X) -no overt collusion, but clear rounds of price increases, lead mostly by CPC (20)</p>	<p>-product quality and service 'compares favourably' with its competitors (22) -'at least as efficient as its UK competitors' (28)</p>
<p>21. British Gypsum Ltd - Increases in the Price of Gypsum-related products 2.8.78</p>	<p>-UK monopoly (13) -market declining since 1974 (13) -need plant with capacity of 12% UK market, plus access to mine, for efficient entry. BG owns all existing mines (19)</p>	<p>(I) -had uniform delivered prices until after Monopolies Commission recommendation in 1974; still not recovering all its transport costs (40) (X) -prices lower than European levels (18) -has a policy of keeping a 10% margin of spare capacity (24)</p>	<p>-'highly profitable' (50) -cost performance compares 'favourably' with overseas plants (48); only 6 percent points between budgeted costs of highest- and lowest-cost plants (36)</p>
<p>22. Trust Houses Forte Hotels Ltd - Charges for Hotel Services in the UK 2.8.78</p>	<p>-'fragmented' market; THF has the largest share with 4% of bedrooms (10), but has much greater share in limited areas</p>	<p>(I) -discounting does not appear 'to be out of line on the basis of cost savings' (21) -wide range of prices for 'full exploitation of local market opportunities' (20). Cost differentials 'secondary role' (20)</p>	<p>-well managed (18) -rate of return 'not unreasonable' (29)</p>

Reference	Market Structure	Pricing Conduct	Market Performance
23. Lever Brothers Ltd - Soaps, Detergents and Related Products 2.8.78	-more brands than firms -Lever or Procter and Gamble have biggest market share in most markets (9, 12)	(I)-increased use of 'temporary price reductions' to 'stimulate sales' (15) had reduced the importance of advertising (16) -margins differ (32)	
24. Royal Doulton Tableware Ltd - China and Earthenware Tableware and Ornamental Items 2.8.78	-growing market (12) -import share above 20% (13) -RDT's market share 15% Wedgewood similar (15)	(I)-price 'what the market will bear' (33) -higher margins on exports; margins vary from +69% to -21% (29, 33) (X)-product differentiation 'most important' (15) -higher retail margins than competitors (30)	wide variations in profit contributions from different factories (33); 'far from being fully efficient' (39)
25. Procter and Gamble:	cf Lever Brothers Ltd, No. 23		
26. Imperial Tobacco Ltd - Cigarettes and Cigarillos 8.11.78	-market declining (11) -market share declining; =54% in 1978 (30)	(I)-discounts according to drop size; reflect costs (16) -uniform delivered price (16) (X)-recent outbreaks of price competition (15)	potentially significant productivity savings available (31)
27. General Paper and Box Manufacturing Co. Ltd and Rizla Ltd - Cigarette Papers, etc. 20.11.78	-market declining (7) -UK monopoly (8)	(I)-discounts, but virtually all customers buy at best terms (10) -lower margins on exports (20) -uniform delivered prices (10)	-return on capital 'high', though falling recently (24) -'efficient' (24)
28. Air Products Ltd - Mercant Industrial Gases 14.12.78	-APL has 20% market share (BOC the other dominant supplier)(8) -no new entrant in last 17 years - 'difficult to gain sufficient business in an acceptable period within the area that can be economically served by one plant' (9)	(I)-negotiated price (no price lists) (10) -variations in profitability by activity (24) (X)-competition on innovation (10), and of a sample of customers believe that APL and BOC 'compete' on price (10) -7-year contracts; reduce competition (13)	'efficient in production and distribution' (21)

Reference	Market Structure	Pricing Conduct	Market Performance
29. Dolland and Aitchison Group - Prices, Charges and Margins for Optical Products 15.1.79	DAG the biggest chain; (chains together control 25% of premises) (13)	(I) - 'uniform pricing', so 'gross margins obtained on particular frames vary quite widely' (19) (X) - trade body circulates a price list (used as a guide) (16) - 'lack of overt competition' (35)	- return on capital 'high' (33) - 'efficient'; would be beneficial for the industry to share in this standard of efficiency (38)
30. Thermos Ltd - Vacuum Ware 15.1.79	- growing market (9) - imports 4% (9) - market share = 70% (up from 35% in mid 1960s) (10) - Thermos name an entry barrier (11)	(I) - volume-related discounts (most trade customers get the maximum) (14) - discount for customer pick-up (14) - differences in UK and export prices reflect 'different profiles of demand' (16) (X) - price leader (13)	- 'efficient' (17) - 'high' rate of return (26) - 'quality of service' important in the increase in market share (12)
31. Butlins Ltd - Tariffs of the Main Holiday Centres in the UK 14.2.79	- static market (7) - market share about 50% (Pontin's have 35-40%) (8)	(I) - seasonal tariff variations (10) (X) - prices higher at peak period than 'a major competitor' (12)	
32. BOC Ltd - Compressed Gases etc sold in Cylinders, Cylinder Rentals, and Fixed Charges 22.2.79	- low growth (11) - 75% market share (Air Products had most of the rest - cf No.28) (11)	(I) - large users get individual contracts (13) - higher charges to small users more than cost differences justify (2) - parts of the charges 'not closely related to specific identifiable elements of costs' (2) - profitability of individual businesses within the Gases Division varies (40)	- 'efficient' (21) - customers highly satisfied with service, technical levels (18) - rate of return too low (40)
33. The Daily Telegraph Ltd - Cover Price 6.3.79	- declining market (9) - 64% market share (9) - demand price inelastic (11)		

Reference	Market Structure	Pricing Conduct	Market Performance
<p><u>EXAMINATIONS:</u></p> <p>1. Prices, Costs and Margins in the Importation and Distribution of Bacon 20.2.78</p>	<p>-declining market (4) -imports have 55% market share (mostly Danish) (5)</p>	<p>-Danish bacon the price leader (8) -Danish price set weekly by a committee of agents (8) -vacuum packed bacon more profitable (1) -Danish more expensive (16)</p>	<p>-Danish product superior (16)</p>
<p>2. Banks: Charges for Money Transmission Services 17.4.78</p>	<p>4 major clearing banks have 79% of current account deposits (5)</p>	<p>-published tariffs for personal accounts, not uniform between banks (14) -negotiated tariffs for business accounts, may 'intimidate' small businessmen (16)</p>	
<p>3. Prices, Costs and Margins in the Production and Distribution of Compound Feeding Stuff for Cattle, Pigs and Poultry 19.4.78</p>	<p>-market growing slowly (6) -BOCM-Silcock has 21% market share, no other seller has as much as 10% (6)</p>	<p>-BOCM gives 'loyalty' (not cost-related) discounts (19) -variations in margins across products (possibly cost-related) (18) -evidence of parallel pricing by six of the largest compounders(BOCM a price leader (4)) with the rest following (18)</p>	<p>- 'wide differences in efficiency' across industry (31) -BOCM the most profitable because efficient (10) -BOCM provides an 'umbrella' for less efficient firms (31)</p>
<p>4. Prices, Costs and Margins in the Production and Distribution of Proprietary, Non-ethical Medicines 17.5.78</p>	<p>-60% UK output foreign owned (14) -imports negligible(14) -40% UK output exported (14) -demand price inelastic (15) -segmented market, with small number of firms in 'strong market position' in each segment (15)</p>	<p>-wide disparities in margins on products (26) -competition on advertising, differentiation - not price (16) -marketing expenses may be more than 20% of total costs in some cases (30)</p>	<p>some variations in efficiency, but overall 'high level of manufacturing performance' (29)</p>

Reference	Market Structure	Pricing Conduct	Market Performance
5. Prices, Costs and Margins in the Distribution of Footwear in the UK 8.6.78	-some market growth (6) -UK production declining (6) -British Shoe Co. has 20% market share (31)	-branded shoes sold at manufacturers' recommended retail price (15) -British Shoe Corporation (efficient) is market leader and 'does not deploy its competitive strength to the fullest extent'. Greater competition could increase BSC's market share (32)	-considerable disparity in performance (30)
6. Prices, Costs and Margins in the Publishing, Printing and Binding, and Distribution of Books 26.6.78	-some market growth -40% exported (14) -easy entry into publishing (21)		-the largest technical books publishers have a higher than average rate of return (26)
7. The Pricing of Beds 2.8.78	-static market (10) -SCR9 = 63%; only two firms with more than 10% market share (12)	-discounting from manufacturer's RRP a common practice (27), leading to considerable price variations between retailers for the bed (32) -range of margins close, but considerable variations in net profits (14)	double-pricing system is confusing (44)
10. The Road Haulage Industry 24.10.78	-46,000 professional hauliers (1) -barriers to competition not great (2)	-own costs by far the most important factor in price-setting, but no consistent policy on margins revealed (3)	wide variations in returns on capital (6)
11. Prices, Costs and Margins in the Distribution of Jeans 29.11.78	-growing market (7) -imports have about 80% market share (11) -six firms have 30% of the domestic market (11)	wide variations in prices (32)	
12. Prices, Costs and Margins in the Production and Distribution of Toothpaste 14.12.78	-growing market (7) -some volatility of market shares; Colgate has the largest (about 33%)	-'temporary price reductions' important (33) -marketing expenses have fallen to 17% as price competition has become more important (19, 42) -possibility of non-cost related discounting (30)	-retailers' margins range from 12 to 30% (11) -manufacturers' margins 'differ considerably' (15)

References	Market Structure	Pricing Conduct	Market Performance
13. Prices, Costs and Margins in the Manufacture and Distribution of Portable Electric Tools 21.2.79	<ul style="list-style-type: none"> -some market growth (9) -Black and Decker has 90% market share (9) 	<ul style="list-style-type: none"> -BandD has used its cost savings to set prices below those of other companies (11) -differences in product margins reflect marketing strategy (16) -not much non-cost related discounting (13) -wide variations in retail prices (34) 	