

**A STUDY OF THE EVOLUTION
OF CONCENTRATION
IN THE FOOD DISTRIBUTION INDUSTRY
FOR THE UNITED KINGDOM**

**VOLUME II
Price surveys**

November 1976

In 1970 the Commission initiated a research programme on the evolution of concentration and competition in several sectors and markets of manufacturing industries in the different Member States (textile, paper, pharmaceutical and photographic products, cycles and motorcycles, agricultural machinery, office machinery, textile machinery, civil engineering equipment, hoisting and handling equipment, electronic and audio equipment, radio and television receivers, domestic electrical appliances, food and drink manufacturing industries).

The aims, criteria and principal results of this research are set out in the document "Méthodologie de l'analyse de la concentration appliquée à l'étude des secteurs et des marchés" (ref. 8756 - french version). September 1976.

This particular volume (vol. II: Price Surveys) constitutes a part of the second series of studies, the main aim of which is to present the results of the research on the distribution of food products in the United Kingdom, with regard to the evolution of prices and mark-ups, based on a limited sample of food products and on a limited number of sales points in the Greater London area.

The whole of the food distribution industry in the United Kingdom will be analysed in another volume (vol. I).

COMMISSION OF THE EUROPEAN COMMUNITIES

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Manuscript finished in November 1976

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PREFACE

The present volume is part of a series of sectoral studies on the evolution of concentration in the member states of the European Community.

These reports were compiled by the different national Institutes and experts, engaged by the Commission to effect the study programme in question.

Regarding the specific and general interest of these reports and the responsibility taken by the Commission with regard to the European Parliament, they are published wholly in the original version.

The Commission refrains from commenting, only stating that the responsibility for the data and opinions appearing in the reports, rests solely with the Institute or the expert who is the author.

Other reports on the sectoral programme will be published by the Commission as soon as they are received.

The Commission will also publish a series of documents and tables of syntheses, allowing for international comparisons on the evolution of concentration in the different member states of the Community.

A STUDY OF THE EVOLUTION
OF CONCENTRATION
IN THE FOOD DISTRIBUTION INDUSTRY
FOR THE UNITED KINGDOM

VOLUME 2: PRICE SURVEYS

VOLUME TWO
PRICE SURVEYS

This Report

commissioned by the Directorate-General for Competition of the Commission of the European Communities has been carried out by Development Analysts Ltd., under the direction of R.W. Evely, B.Sc. (Econ.), in consultation with Professor P.E. Hart, B.Sc. (Econ.), of the University of Reading, and Professor S.J. Prais, M. Comm., Ph.D., Sc.D. (Cantab.) of the City University, London and the National Institute of Economic and Social Research.

This Volume

is the second of two Volumes which concern the following topics:

Volume 1: a study of concentration at the industry scale for the U.K. food distribution industry, 1969-74.

Volume 2: a study of food-shops' prices at the retail distribution level.

Part One of This Volume

sets out the Methodology suggested by Dr. R. Linda, (Head of Market Structure Division, Commission of the European Communities, Brussels), for the analysis of Price Survey research as applied to food distribution.

Part Two of This Volume

presents the research findings of two Price Surveys conducted in one part of the United Kingdom during 1976 and was prepared by A.J. MacNeary, B.A., Development Analysts Ltd.

THE METHODOLOGY

Dr. R. Linda, Head of Market Structure Division,
Commission of the European Communities,
Brussels, Belgium.



PART ONE

- PROGRAM OF RESEARCH ON CONCENTRATION - METHODOLOGY OF THE RESEARCH AS APPLIED TO FOOD DISTRIBUTION

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- PROGRAM OF RESEARCH ON CONCENTRATION -
METHODOLOGY OF THE RESEARCH AS APPLIED TO FOOD DISTRIBUTION

1: INTRODUCTION:

Studies of several manufacturing industries: progress so far

1.1: When, in 1969 and 1970, the Commission launched a programme of quantified studies of specific industries, inflation was, in fact, exerting little real impact. The object of the studies was therefore, particularly in view of the financial and budgetary constraints, restricted in two ways. First of all, the industries to be studied were all in the manufacturing sector (they included pharmaceuticals, cotton, paper, household electrical appliances, office machines, textile machinery, agricultural machinery, food, etc.). Secondly, there was no choice but to forgo recording and analysing prices, even though these have a definite role to play in the actual functioning of competition. Furthermore, the aim of the methodology was to set a uniform basis for describing and comparing the relevant industries in the various Community countries with the ultimate object of overcoming a serious difficulty relating to the available statistics and sources. The mustering and analysis of the large number of data relating to firms' operations has provided a much fuller picture of the structures under study and of the way they have developed since 1962. For the first time, uniform comparable criteria have been used at European level for the measurement and analysis, in major firms in each of the industries considered, of variable factors (turnover, persons employed, wages and salaries, net profits, cash flow and own capital) over a lengthy period which, in several industries and several countries, ran to as much as ten years. It should be noted here that the Commission has already published fifty or so volumes containing the individual reports prepared by the institutes and experts commissioned to do the research together with a series of concentration tables (setting out the comparative econometric analyses and syntheses).

1.2: If the results of these studies are now being summed up at the beginning of 1976, then this means that there must be not so much a revision as above all an extension of the:

- objectives,
- object
- methodology.

As it happens, the objectives originally set retain their validity, since it can be seen from the various individual reports:

- (a) that they are realistic in that in most of the industries which have been the subject of research it has been possible to attain them to a satisfactory degree;
- (b) that they are useful, for by pursuing them it has been possible to make a substantial increase in the stock of facts and landmarks available for the guidance of the Commission, the European Parliament and public opinion in its entirety.

None the less, this stocktaking must also entail an updating of methods (a sort of "aggiornamento") because the economic situation has changed sharply over the last six years and because experience since acquired on methods and tools of analysis should now be turned to good account. Hence the need for a new series of studies; let us begin by outlining their principal features.

The new series of studies: their objectives

1.3: As regards the objectives of the research, the outcome of this "aggiornamento" should be:

- (a) more far-reaching analysis of the relationship between size and profitability, the aim being to discern and demonstrate disparities of corporate performance and their causes;
- (b) development of the analysis of the individual product markets;
- (c) the beginnings of a comparative analysis of price trends on certain of these product markets in the various member countries as a function both of the size and of the location of distribution units.

The problem here is to cast new light on relationships based on developments in concentration levels (both for given industries and for specific product markets) and on:

- (i) the development and distribution of net profit margins from every conceivable angle, highlighting comparative developments in line with:
 - (a) production units and distribution units;
 - (b) large distribution units and small independent units;

- (ii) the development of gross profit margins, or mark-ups, obtained in each reference period by the various forms and types of distribution, a distinction being made for:
 - (a) type of product, account also being taken of the rate of stock turn;
 - (b) the size of the distribution unit (large and medium firms and very small independent units);
 - (c) location.

The whole problem of relationships between market power and economic performance thus arises; it should be approached through applied practical economic research.

1.4: The existence of inflationary strain in the various Community countries, however regrettable in social and economic terms, provides a valuable and unique opportunity for competition economists to work from concrete and specific realities in order to analyse the operation of market mechanisms with special reference to the impact of market dominance and of formal or informal restrictive agreements on trends in retail prices and gross and net profit margins, by analysing the effects on price formation and dynamics of the roles of the manufacturing sector and of distribution in its various forms respectively. At times of price stability it is not easy to explain why prices are at a given level or why if at all they are uniform (does the uniformity result from the spontaneous play of competitive forces or from concerted action?), whereas when prices are constantly changing it is an extremely worthwhile exercise to detect flashpoints, parallelisms, the speed and scope of price alignments or of any movements towards divergence, and in more general terms a series of symptoms for diagnosing how circuits are operating and hence:

- on certain inflation "co-factors",
- on certain monopoly profits or rent deriving from the firms position on the market.

How can the existence, the weight and the responsibility in the inflationary process of these monopoly profits be confirmed or denied without first making specific analyses of distribution channels? Yet as far as we can see, these analyses are still conspicuous by their absence.

The impact of international trade on domestic prices

1.5: In addition, our field of vision has to be extended to another range of problems which are of fundamental importance to the Community. It will be realised that the studies on concentration in the various branches of manufacturing industry must set out basic factors of international trade covering

both trade between Community countries and trade with non-member countries, and indeed virtually all the reports put out by the Commission have done this. If the studies are now extended to distribution, it may well be possible to establish a number of significant interrelations between the structure of international trade and comparative developments in retail prices in line with the place of manufacture and/or the origin of the goods. For instance, do the final consumer prices of imported goods rise more or less quickly than the prices for domestic products? Does an increase in the price of domestic products actually spark off the importation of competing products, and if so to what extent, on what conditions and after what time-lag? Do the retail prices of imported goods align on the retail prices of similar domestic goods, or do domestic prices tend to fall under the pressure of imports? Do relations and reactions as between prices (and their variations) for imported and for domestic goods arise in the same way at the same time or are there perhaps differences from country to country and region to region, and even between sales points for the relevant sample? These are only examples of the points to be considered.

Subject matter: food distribution

1.6: The subject matter under study has thus been considerably broadened, since it may no longer be confined to manufacturing industry but must extend also to distribution and its channels, the analysis here being extended and more sophisticated. In fact, there is a threefold problem concerning definition of:

- (a) the relevant group or sample of goods;
- (b) the relevant stage of the distribution channel;
- (c) the relevant territory.

1.7: With respect to (a) above, at first sight it is reasonable to regard as the most important goods for family budgets and thus for the inflationary process not only food, but also textiles and clothing, household electrical appliances and pharmaceutical products. Indeed, it is no coincidence that all these industries are covered by the Commission's programme of research on the development of concentration in manufacturing. But if the study of distribution and its channels is to be got under way without further delay, the subject matter must be confined to the most important and most "strategic" area (for family budgets): food. The same research teams who have already presented excellent reports on the food industry* will also be dealing with the question of

* The following teams did the research in the four largest Community countries:

France: Institut Agronomique de Montpellier (IAM), the team being made up of J.L. Rastoin (in charge), G. Gherzi, M. Castagnos, D. Boulet and J.P. Laporte,
United Kingdom: Development Analysts Ltd. (Professors P.E. Hart, J.S. Prais, Mr. R.W. Evely, Mrs. J.A. Carter, Miss B.A. Playll),

food distribution. To begin with, the analysis will deal above all with finished food products, although there are plans for putting in hand, at a later stage, an analysis of agricultural products, unprocessed or after primary processing.

1.8: Food has been selected as a priority subject partly because the price-elasticity of demand for food is relatively low and in certain circumstances can obviously help to spread inflation and create monopoly profits of a purely speculative nature which are very harmful to general economic equilibrium. Later still, it will be particularly interesting to analyse the distribution channels for products for which the price-elasticity of demand is relatively high, such as household furniture, so as to show how far any deflationary benefits of the relative elasticity are offset by the "stickiness" of distribution channels to the detriment both of manufacturers and of consumers.

* Continued from previous page:

Germany: IFO-Institut für Wirtschaftsforschung, Munich,
Italy: SORIS, Turin, the team being made up of B. Balliano, G. Bertone,
F. Guaschino and R. Lanzetti.

All the reports have duly been published by the Commission. Copies may be obtained from the Market Structure Division, Office 7-23, Avenue des Nerviens, 9, 1040 Brussels.

2: METHODOLOGY: THE SAMPLE OF MAJOR FIRMS ($\overset{*}{n}$)

2.1: Fundamental methodological problems arise when we come to consider points (b) and (c) of paragraph 1.6; that is, the stage of the distribution channel (b) and the territory to be regarded as relevant (c). If the research is to be successful, the subject matter must be defined clearly. Hence the following questions must be answered:

- as regards (b): are we to deal with wholesale trade, the retail trade, or both?
- as regards (c): are we to deal with a national territory, a given region or a highly limited and specific area?

2.2: A very general preliminary answer to all these questions lies in the sample method already applied to all the research carried out on concentration in manufacturing industries. A specific multi-dimensional analysis (based on a whole series of variables) has always been applied not to "the universe", meaning the whole industry with firms running into thousands, but to a reduced sample ($\overset{*}{n}$) of major firms (in 1971 $\overset{*}{n}$ for the food industry was 60 in the United Kingdom, 50 in France and 58 in Italy). The sample method not only sharply reduces research costs but also makes it possible to bring out the structure and behaviour, the performance of the large units i.e. those of the greatest significance both for concentration and for competition. This method allows generalised application of the typical econometric instruments of oligopolistic analysis to virtually all the structures to be studied.

2.3: In the food industry, which is what concerns us here, the aim is:

- (i) to set up a sample ($\overset{*}{n}$) of major distribution firms (food retailers):
 - working in the retail business and possibly in wholesale trade as well;

TABLE 2.1

ECONOMIC STRUCTURE - OF THE n* FIRMS FORMING THE SAMPLE

- OF THE MOST IMPORTANT UNITS OF ECONOMIC ACTIVITY (UEA)

SECTOR :

COUNTRY :

FIRM / UEA	VARIABLES														
	TURNOVER			NET PROFIT			CASH FLOW			OWN MEANS			VALUE ADDED		
	(1)	(2)		(1)	(2)		(1)	(2)		(1)	(2)		(1)	(2)	
	'000.	'000.	%	'000.	'000.	%	'000.	'000.	%	'000.	'000.	%	'000.	'000.	%

(1) Aggregate business of the group, firm or UEA.

(2) Proportion concerned by the relevant sector.

N.B.: Depending on the degree of legal and administrative decentralization of the group and varying from case to case, aggregate business may refer either to world business, to European business or to business in the home country only.

- considered at national level;
- (ii) to set up a very small sample (\bar{g}) of major national food distributors working at the wholesale stage and completely absent from retail trade;
- and (iii) to analyse the two samples \bar{n} and \bar{g} separately, compiling all the significant variables (turnover, persons employed, wages and salaries, net profit, cash flow, own means⁺ and, where possible, value added) for each unit studied.

2.4: The Commission's computer will use the individual basic data, as it has already done for so many manufacturing industries, to calculate the indices and ratios required for the Commission's research programme. It is also clear that:

- the methodology applied to distribution is similar to that applied in manufacturing industries;
- the elaboration and setting up of the sample of major firms is therefore a basic research element;
- the compilation of Table 2.1 is a vital preliminary operation even if in certain cases and for certain units there are gaps in the figures.

2.5: Table 2.1 will set out the economic structure of each unit (referred to by name with corporate status or by a letter of the alphabet), the term "firm" being used for units deriving more than 50% of their turnover from food distribution and the term "unit of economic activity" (UEA) for units not achieving this 50% threshold. ^x

2.6: Finally, in deciding on the relevant territory (c), a distinction has to be made between:

+ i.e.: equity or own capital.

^x Table 2.1 may be regarded (i) as a quantitative synthesis, used as a base for a whole series of qualitative and descriptive considerations dealing with interlocking shareholdings and directorates between the main groups and firms, mergers, trade investments, formation of joint ventures, all involving these groups, and (ii) as an overview of their basic economic and financial features, technological structure, degree of integration and diversification, showing inter alia, the countries, industries and markets in which the groups operate. Hence the company profiles, which form a pretty voluminous appendix, link up with analyses of concentration and competition trends, on the various product markets. Indeed, everything links up with everything else.

- analyses of the economic structure of sample \bar{n} (or $\bar{n} + \bar{g}$) of major distribution firms operating nationally; and
- specific-point or local analyses aimed at making direct surveys on prices and mark-ups.

In the second case, attention will be paid to sales points in a clearly defined area, with the sample method being applied in establishing a limited sample of 30 or 40 sales points in a limited number of areas (e.g. London, Munich, Aarhus, Turin) where the surveys are to be carried out. We shall return to this in later paragraphs.

3: OLIGOPOLISTIC INTERDEPENDENCE: THE THREE MATRICES

3.1: The results of the analyses on the economic structure of the major firms' sample (\bar{n}) regarded at national level may be set out in practical summary form in three matrices showing oligopolistic interdependence + (Table 3.1). These matrices can be applied with equal facility to manufacturing industries and to distribution; in, and according to, each individual case a large number of operational conclusions, remarks, and inferences can be drawn from them. ++ Developing the analyses of results thrown up by these matrices will be part of the work entrusted to the individual research teams. Here we shall simply explain how to construct and read these three matrices, all of which are set out on both the horizontal and vertical planes in decreasing order of a given index or ratio, which varies depending on the matrix as follows:

For matrix No. 1: $L_{n h}^*$ and L_s ;

For matrix No. 2: 1^r_i and 2^r_i ;

For matrix No. 3: 1^c and 3^c ;

The various rankings of the variables for Matrix No. 1 and of firms for Matrices Nos. 2 and 3 are expressed by symbols $v_1^i, v_2^i, r_1^i, r_2^i, c_1^i, c_3^i$.

+ Preparatory work for extending the computer programme used by the Commission Computer Centre is making good progress and in 1976 the computer is expected to provide automatically all the elements required for the rapid compilation of all these three matrices (and of the many derived data).

++ See R. Linda, *Metodologia della Concentrazione*, 1975, of which a lengthy extract was published in *Ricerche di Economia Applicata - Metodologia e applicazione all'industria alimentare italiana*, Franco Angeli, Milan 1975. In the IAM report on the food and brewery industries in France, some of the indices and matrices discussed in this paragraph were applied in extremely interesting ways.

TABLE 3·1 : THE THREE MATRICES OF OLIGOPOLISTIC INTERDEPENDENCE

Year: t

SECTOR:
COUNTRY:

MATRIX No 1:
OLIGOPOLISTIC
UNEVENNESS
(of firms n*)

		v_1^i	1	2	...
		VARIABLES			
v_2^i	VARIABLES	$L_s^* \backslash L_h <$			
1					
2					
...					

MATRIX No 2:
COMPARATIVE
EFFICIENCY LEVEL
(of firms n*)

1^r 2^r			r_1^i	1	2	...	n*
			E_i				
			1^r_i				
r_2^i	E_i	2^r_i	2^{x_i} 1^{x_i}	1 []	1 []	...	1 []
1			2 []				
2			2 []				
...			...				
n*			2 []				

MATRIX No 3:
COMPARATIVE
GROWTH RATE
(of firms n*)

1^c 3^c				c_1^i	1	2	...	n*
				E_i				
				$1^c_{i,t}$				
c_3^i	E_i	$3^c_{i,t}$	$3^{x_{i,t}}$ $1^{x_{i,t}}$	1 []	1 []	...	1 []	
1			3 []					
2			3 []					
...			...					
n*			3 []					

Matrix No. 1:

3.2: $L_{n^*}^*$ = value corresponding to the maxima of the Linda index in the interval between $n^* = 2$ and $n^* = n_m^*$

L_s = arithmetic mean of the L indices assuming

$n^* = 2$ to n_m^* , where:

n^* = number of units studied

n_m^* = number of units corresponding to the minimum value of the L index within the sample analysed.

The L index is derived from the following formulae:

$$L = \frac{\sum_{i=1}^{n^*-1} \frac{EO_i}{n^*}}{n^* - i}$$

where:

$$EO_i = \frac{\frac{A_i}{i}}{\frac{A_n^* - A_i}{n^* - i}} = \frac{n^* - i}{i} \cdot \frac{A_i}{A_n^* - A_i} = \frac{n^* - i}{i} \cdot \frac{A_i}{1 - A_i}$$

A_i = cumulative share of the total sample accounted for by the first i firms

$$A_n^* = 100\% = 1$$

Matrix No. 2:

3.3: E_i = firm or unit considered

$1^r = 1^r i$ = ratio of net profits as percentage for each firm turnover

$2^r = 2^r i$ = ratio of net profits as percentage for each firm own means

The extension of the programme operated by the Commission Computer Centre also makes provision for calculation of, among other things, four additional ratios taking the cash flow variable instead of net profit and added value in place of own capital: several ratios should be used to measure - in a comparative approach - the profitability of the individual firms or units.

$1^x = 1^x_i$ = absolute value of the turnover of a given firm, 'i'

$2^x = 2^x_i$ = absolute value of the own capital of a given firm

$1 \int \int_i$ = ranking of a given firm in the table of absolute values of turnover (1^x)

$2 \int \int_i$ = ranking of a given firm in the table of absolute values of own capital (2^x)

Matrix No. 3:

3.4:

t = base year

$$1^c = \frac{t+1}{t} \frac{1^c_{i,t}}{1^c_{i,t}} = \frac{t+1}{t} \frac{1^{a*}_{i,t}}{1^{a*}_{i,t}} - \frac{t}{t} \frac{1^{a*}_{i,t}}{1^{a*}_{i,t}}$$

where:

$\frac{t+1}{t} \frac{1^{a*}_{i,t}}{1^{a*}_{i,t}}$ = percentage accounted for by firm i in the sample, for the turnover variable, as a proportion of all $\frac{1}{n}$ firms of the sample.

In other words, 1^c represents the positive or negative variation of the percentage share of a given firm i in the entire sample analysed, moving from one year (t) to the next (t + 1). The figure 1 represents turnover, and figure 3 shows net profit and just as, as we have already seen for Matrix No. 2, figure 2 referred to "own means."

Hence, where index 1^c represents the annual comparative growth rate of a given firm in relation to turnover, index 3^c represents this rate in relation to net profit. Another aim of the extension of the Commission computer programme is to allow for mensuration of the growth rate for other variables (persons employed, wages and salaries, gross investments, own means, value added, etc.) in addition to turnover (1^c) and net profit (3^c).

3.5: Matrix No. 3 serves as a basis for working out the dynamic indices (d, F) and the offsetting combined index (Λ)⁺:

+ See Dr. R. Linda: Concurrence oligopolistique et planification concurrentielle in Economie Appliquee, ISEA Archives, 1972, nn. 2-3, Librairie Droz, Geneve; Metodologia della Concentrazione, 1975, op cit; Static and Dynamic Methods for Analysing Industrial Concentration: the Italian Case, in Markets, corporate behaviour and the State, edited by A.P. JACQUEMIN - H.W. de JONG, Stenfert Kroese, 1976, Leiden (Holland), pages 143, et ss.

$$d = \frac{\sum_{i=1}^n |c_i|}{2}$$

upper limit of which is 100% = 1 (maximum dynamism) and the lower limit 0.

We then obtain:

$$F = \frac{1}{n} \cdot d$$

$$\Lambda = \frac{L}{F} \quad \text{and} \quad \frac{1}{\Lambda} = \frac{F}{L}$$

Finally it should be noted that these matrices have to be constructed for each year of the period under study.

4: THE THREE DISTRIBUTION MATRICES

Analysis of sub-industries and product markets

4.1: The food industry as a whole consists of a whole range of sub-industries of technologically widely differing natures and producing a vast number of products. Hence the various research projects on concentration in manufacturing have taken these sub-industries and their main products separately. In France, for instance, work was done on 14 agro-industrial sub-industries: - preserved foods (the whole industry, meat, vegetables, fish);

- milk;

- products derived from cereals (grain milling, biscuits, spaghetti, macaroni and the like);

the rest: animal feed, sugar, fats, chocolate and confectionery, frozen foods, condiments and spices, broths and soups. For each of these subsectors, calculations were made for the indices of oligopolistic inequality and dominance (Linda indices) and market shares of the first four and first eight enterprises (report by IAM, Montpellier, March 1975, Nos. 6912-8695). In the United Kingdom, separate analyses were carried out for manufactured milk products, infant foods, ice-cream, grain-milling, biscuits, margarine, sugar, canned, frozen and dehydrated foods, dietetic and health foods (report by Development Analysts Ltd., October 1975). Markets were broken down along similar lines in the other Community countries.

4.2: It should be noted that:

- (i) the approach to individual sub-industries, each covering a series of products closely related to each other in technological terms but not necessarily in direct competition on the market, is an essential preliminary phase for analysis of product markets;

- (ii) the aim of this analysis is to establish the level of concentration and the operation of competition on each relevant market where interchangeable products can be used for the same purposes subject to given supply and price conditions, and the analysis from this point of view has two poles of interest:
- (a) first of all, it concerns manufacturers and producers operating on the various markets, specifying not only their names and brands but also changes in market shares, the relevant market being the national market for a specific product +
 - (b) secondly, the analysis has to follow each stage of the channel through which a given product or brand moves from manufacturer to final consumer.

4.3: In other words the entire economic area from production to consumption, with its structure and evolutive dialectic, has to be analysed, with the products or brands to be studied being selected by the sampling method. The sampling method is the operational response to a manifest technical constraint, since it would be impossible to pay such close attention to each and every one of the multitude of products and brands available on the market. Using this last approach (iib), there is a gradual progression from analysis at national level to analysis at local level, as will be seen in the following paragraphs.

Distribution Matrix No. 1

4.4: The results of the specific-point or local analyses of direct surveys on prices and mark-ups can in practical terms be set out in the form of three matrices, The Distribution Matrices. The base for applying our methodology to distribution is the elaboration and setting up of two samples, one of firms and the other of products or brands. Regarding the sample of firms, a distinction has to be made between:

- major firms ($\overset{*}{n}$), in business both as wholesalers and as retailers or only as retailers; and
- small sales points ($\overset{*}{m}$), in other words the small independent units to be found in the territory under study.

The sample used for Distribution Matrix No. 1 shown in Table 4.1 consists of a number of enterprises equal to $\overset{*}{n} + \overset{*}{m}$, and hence we obtain:

+ The market share can, of course, be computed and expressed in the form of a bracket.

TABLE 4-1

DISTRIBUTION MATRIX No 1: MARK-UPS, PRICES AND TURNOVERS

COUNTRY :

Year t :

DATE OF ENQUIRY:

		RANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	...	y*	ALL FOOD PRODUCTS (MISCELLANEOUS)
		PRODUCT OR BRAND																					
RANK	ENTERPRISE (RETAILER) AT NATIONAL LEVEL	$\frac{g}{j}$	WEIGHTED AVERAGE "MARK-UP" FOR EACH PRODUCT																				
		$\frac{1}{j}$	ABSOLUTE PRICES FOR EACH PRODUCT (BRAND) CONSIDERED																				
1	BIG RETAILERS	PERCENTAGE TURNOVERS	ABSOLUTE TURNOVERS	LOCAL ENQUIRY BY SAMPLE OF 30 OR MORE OUTLETS																			
2																							
3																							
4																							
...																							
n*																							
...	SMALL OUTLETS	RETAILERS' PERCENTAGE TURNOVERS	RETAILERS' ABSOLUTE TURNOVERS																				
...																							
m*																							
ALL ENTERPRISES (RETAILERS)																							

\bar{a}_i^* = percentage accounted for by each major firm in total sales (\bar{x}^*) of the sample of major firms (\bar{n}^*) regarded at national level;

\bar{x}_i^* = absolute sales (in thousands or millions of the national unit of currency) of each firm in sample \bar{n}^* and of each unit in sample \bar{m}^* for year t.

The bottom of Distribution Matrix No. 1 will show the aggregate national turnover of the retail trade for year t obtained from official statistical sources (in thousands or millions of the national unit of currency), with a breakdown where possible between the individual products (\bar{y}^*) entering into the matrix. The vertical of Distribution Matrix No. 1, as regards major firms sample \bar{n}^* , is thus closely related to the following tables,

Table No. 2.1 showing the economic structure of major firms (\bar{n}^*) incorporated in the sample, specifying that part of their business which concerns distribution and, more particularly, retail trade;

and

Table No. 3.1 the three matrices of oligopolistic interdependence, constructed from the individual variables or data relating to the same major firms in sample \bar{n}^* as is used for the three Distribution Matrices.

As for the horizontal of Distribution Matrix No. 1, it should be noted that:

\bar{y}^* = number of products or brands forming the sample;

q_i = mark-up, meaning that amount which is added to the buying price for each product or brand to obtain its retail selling price;

p_i = retail price of a given product in sample \bar{y}^* .

It is important also to note that:

- values q_i and p_i are generally averages, and are better interpreted if they are accompanied by indications of the upper and lower limits of the bracket within which the average values fall;
- these brackets and values must be drawn from the samples of firms and units ($\bar{n}^* + \bar{m}^*$) taken both at national level (where possible) and at local level.

4.5: Distribution Matrix No. 1 is set out on the horizontal plane (products or brands) in decreasing order of mark-ups on the relevant goods, and on the vertical plane (firms) by size in national terms of firms and units measured according to their proportion of aggregate sales of the sample. The central frame of the matrix sets out the results of the local surveys, in other words:

TABLE 4.2

DISTRIBUTION MATRIX NO.2: COMPARATIVE EVOLUTION OF
 MANUFACTURING AND CONSUMER PRICES

COUNTRY :
 DATE OF ENQUIRY :

		RETAIL PRICE																			ALL FOOD PRODUCTS					
		RANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	...		y*				
PRODUCT OR BRAND																										
BUYING & MANUFACTURING PRICE	RANK																									
	1	s_{m1}	s_{p1}																							
	2																									
	3																									
	4																									
	5																									
	6																									
	::																									
	y*																									
	ALL FOOD PRODUCTS																									

- the mark-up (q_i) recorded for each product or brand and applied to each firm or unit retailing the product or brand; and
- the percentage (\hat{a}_i) accounted for by each product or brand in the aggregate sales of each firm or unit at local level (or if this is not possible, at national level; this will be stated in the table).

One essential point is that the central frame of the matrix is devoted exclusively to the local survey, so that:

- the units covered by this part are not the same sample of major firms (\hat{n}) taken at national level but the sales points analysed in the sample area; these sales points may of course either be national major firms incorporated in sample (\hat{n}) or small independent units (\hat{m}); and
- the \hat{a}_i figures given in the central frame thus set out percentages (for each product or brand) calculated not on the basis of the national sample of \hat{n} firms but on the local sample ($\hat{n} + \hat{m}$) used for the direct price survey.

4.6: It goes without saying that in practice Distribution Matrix No. 1 may be filled only partially and may contain many gaps. Nevertheless, its usefulness and its approach remain vital since it has two objectives:

- establish the requirement for economic information in obtaining a valid overall picture of the operation of circuits, mechanism and units of distribution;
- establish a global catalogue of the stock of economic information which is actually available, acquirable and usable on the basis of the accounting, administrative and legal rules in force in the various Member States.

Distribution Matrix No. 2

4.7: Here we highlight comparative trends in retail and wholesale (or manufacturing) prices. This Distribution Matrix (shown in Table 4.2) covers the same products or brands \hat{y} as Distribution Matrix No. 1 and is set out with index S_i on the horizontal plane and S_m on the vertical plane where:

$S_i = t + 1 S_i =$ percentage variation (\pm) of the retail price of a given product as compared with the previous period (t) (12 months, 6 months, 3 months).

S_m = $t + 1$ S_m = percentage variation ($\frac{\Delta}{\bar{y}}$) of the buying price (manufacturing or import price) of a given product as compared with the previous period (t) (12 months, 6 months, 3 months).

The following are also shown though they do not enter into the calculation:

$t p_j$ = retail price of a given product j at time t (beginning of the survey);

$t p_m$ = buying price (manufacturing or import price) at time t (beginning of the survey).

All these prices and their variations are no more than averages obtained from the analysis of the local sample of sales points (firms and independent units: $\bar{n} + \bar{m}$) for the various relevant products (\bar{y}). It will therefore be of special value to show the actual upper and lower limits.

4.8: There are two fundamental differences between Distribution Matrices Nos. 1 and 2:

- (a) on Distribution Matrix No. 1, only the central frame relates to the local survey whereas the whole of Matrix No. 2 contains results for the local survey with only the last column and the last line (aggregate food products) being reserved for variations and prices recorded at national level (using official statistics when necessary);
- (b) Distribution Matrix No. 1 deals both with the sample of firms and sales points and with the sample of products, whereas Matrix No. 2 covers exclusively the sample of products, although these are dealt with separately for comparison purposes at two levels:
 - the retail stage
 - the buying stage (from the manufacturer or importer).

At the first level, there are no technical difficulties; retail prices are posted in every shop - they are perfectly "transparent." At the second level (buying prices), information can be obtained from "official" price lists (for certain types of product) or from producer industries, importers, customs departments, etc. The price will be free delivered to warehouse or shop, or cif (cost, insurance, freight).

4.9: There are two main problems concerning buying prices; first of all, the manufacturing or import prices are not always "transparent" (far from it) while, secondly the price is not always the same for all buyers. Major distribution chains, collective buying organizations and selling organizations are

TABLE 4-3 DISTRIBUTION MATRIX No.3: DIFFERENCES IN PRICE VARIATIONS BETWEEN BIG RETAILERS AND SMALL OUTLETS

COUNTRY :
DATE OF ENQUIRY :

PRODUCT OR BRAND		BIG RETAILERS' PRICES																	ALL FOOD PRODUCTS						
		RANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	...	y*n*			
SMALL OUTLETS' PRICES	RANK	S_j																							
	1	tP_j																							
	2																								
	3																								
	4																								
	5																								
	6																								
	...																								
y*m*																									
ALL FOOD PRODUCTS																									
T_j = Rate of Stock Turn																									

in a position to obtain highly advantageous conditions, prices and discounts as a result of their strong bargaining positions which, in their turn, depend on the scale and continuity of their custom. To simplify matters, we must work on the assumption in Matrix No. 2, that for each product or brand there is a single average price charged to every purchaser, even if this is a fiction: this will generally be the list price before any discounts (there are a large number of types of discount, of varying degrees of "transparency"). Generally, this will, as well, be a buying price also valid at national level and not only that derived from direct surveys of the local sample of selling points.

4.10: One last point remains to be made as regards the connection between buying, manufacturing or import prices in Matrix No. 2 and mark-ups in Matrix No. 1. It is not impossible that negative mark-ups will appear at the extreme right of the horizontal plane in Distribution Matrix No. 1 for certain products or brands. There would be two explanations for this: either large stores are obtaining very substantial discounts on official buying prices set out in the vertical plane of Distribution Matrix 2, or these large stores are practising loss-leading techniques.

Distribution Matrix No. 3: the sales point sample

4.11: Like Distribution Matrix No. 2, Distribution Matrix No. 3 shown in Table 4.3 is based exclusively on the results of the local survey dealing with 30 or 40 sales points. This matrix shows the differences in price increases (or of any falls) between large stores (on the horizontal plane) and small independent units (on the vertical plane).

In setting up the sample of sales points, valid for all the three Distribution Matrices, the diversification and representativity criteria must be taken as bases. Hence there must be a distinction not only for supermarkets, "hypermarkets", cooperatives and small independent sales points, but also for siting (city centre, suburbs, village, small country town, etc.). The object of Distribution Matrix No. 3 is to reveal the operations and performance - measured in absolute terms and in terms of price variations - of all the sales points incorporated in the sample for the local survey. Thus, they represent the final stage of a very thorough econometric analysis within which we shall be able to set a system of price variations and levels theoretically involving \bar{y}^* ($\bar{n} + \bar{m}$) factors, assuming that for each unit of the sales point sample ($\bar{n} + \bar{m}$) there is a different price variation (S_{ij}) for each relevant product (\bar{y}). Assuming that \bar{n} is the number of sales points falling within the large firms category, actually consisting of supermarkets, and that \bar{m} is the number of small independent units, we obtain:

- $\bar{y}^* \cdot \bar{n}$ terms on the horizontal plane,

- $\bar{y}^* \cdot \bar{m}$ terms on the vertical plane,

all set out in decreasing order of S_{ij} .

Clearly: $\bar{y}^* \cdot \bar{n} + \bar{y}^* \cdot \bar{m} = \bar{y}^* (\bar{n} + \bar{m})$

TABLE 4.4

SCHEME OF TABLE OF COMPARATIVE PRICES REGISTERED AT TIME "t" ACCORDING TO THE "SALES POINT" TYPE AND CATEGORY

SALES POINT CATEGORY (ACCORDING TO THE TRADE TYPE)	PRODUCT OR BRAND	1	2	3	4	....
		A	MAX			
	MIN					
	WAM					
B	MAX					
	MIN					
	WAM					
C	MAX					
	MIN					
	WAM					
D	MAX					
	MIN					
	WAM					
....						
WHOLE SAMPLE OF "SALES POINTS"	MAX					
	MIN					
	WAM					

This concise table will indicate - for each product or brand considered - the Maximum Price (MAX), the Minimum Price (MIN) and the Weighted Average Price (WAM) (resulting from the Arithmetic Mean, weighted according to the frequency).

Each "Sales Point" (capital letter) and each product or brand (number) are coded.

There will therefore, be a price and a price variation for each product and each sales point.

4.12: Distribution Matrix No. 3 may be summarised, as regards the first prices enquiry, in a concise "Scheme of Table of Comparative Prices registered at time "t" according to the Sales Points Type and Category", (Table 4.4) which does not illustrate each single "Sales Point" but each Group or Category of "Sales Points". Thus, for instance, we will have,

- A: "Supermarkets Town Centre";
 - B: "Supermarkets Suburban";
 - C: "Small Multiple Suburban";
 - D: "Cooperative Town Centre";
 - E: "Cooperative Suburban",
- and so on.

For the further prices enquiries ($t + i$) it will be helpful to include, not only the absolute prices registered at the last survey (t) but also the price variations, from time t to time $t + i$ (Table 4.5).

4.13: With Distribution Matrix No. 3, as well as with Tables 4.4 and 4.5 described above, it will thus be possible to establish a number of salient phenomena characterizing distribution structures:

- (a) Are price variations and levels greater for certain types of product than for others?
- (b) Do these variations and levels change sharply, and if so how, between the various sales points (depending on their size and siting)?
- (c) Do these variations and prices change as between sales points belonging to the same distribution groups or associations?

A further comparison can be obtained from the bottom of Matrix No. 3 in that $T_j =$ rate of stock turn. If it were possible to take this aspect of the analysis a stage further and compare it with the various mark-ups applied by the sales points in the sample, economic conclusions could be reached on:

- the performance of the various distribution units;
- trends and distribution of mark-ups as between large distribution firms and small independent units.

4.14: Systematic and reasonably extensive application of the econometric system described above could open the way towards overall specific-point economic analysis of distribution structures, circuits and units. Subsequently, it would become possible to,

TABLE 4.5

SCHEME OF TABLE OF COMPARATIVE PRICES REGISTERED AT TIME "t + i" ACCORDING TO THE "SALES POINT" TYPE AND CATEGORY with the indication of the corresponding price variations (in %)

PRODUCT OR BRAND SALES POINT CATEGORY (ACCORDING TO THE TRADE TYPE)		$t+i P_j ; t+i S_j$					$t+i S_j$
		1	2	3	4	WHOLE SAMPLE OF "SALES POINTS" (only WAM)
A	MAX						
	MIN						
	WAM						
B	MAX						
	MIN						
	WAM						
C	MAX						
	MIN						
	WAM						
D	MAX						
	MIN						
	WAM						
....	MAX						
	MIN						
	WAM						
WHOLE SAMPLE OF "SALES POINTS"	MAX						
	MIN						
	WAM						

This concise table will indicate - for each product or brand considered - the Maximum Price (MAX), the Minimum Price (MIN) and the Weighted Average Price (WAM) (resulting from the Arithmetic Mean, weighted according to the frequency), registered at the more recent survey ($t + i P_j$). Moreover, for each Price, the corresponding variation in price (in %) from time t to time t + i, will also be indicated at the right hand side. It is noteworthy that the WAM for the price variation is the arithmetic mean of all price variations taken into account.

Each "Sales Point" (capital letter) and each product or brand (number) are coded.

- (a) formulate a number of hypotheses explaining the role and responsibility of distribution in the inflationary process,
 - (b) update and set on new empirical bases certain aspects of the theory of monopolistic competition posited by Piero Sraffa and E.H. Chamberlin, ⁺
- and (c) extend the interdependence and distribution model to cover competitive weapons and strategies other than prices (such as advertising, product differentiation).
-

+ Although Marshall and K. Wicksell can be regarded as the precursors of this theory, the basic works on the subject are: Piero Sraffa, The Law of Returns under Competitive Conditions, in *Economic Journal*, 1926, and, a few years later, Edward H. Chamberlin, The Theory of Monopolistic Competition, Harvard University Press, 1933.

5: CONCLUSION

Problems relating to the practical application of the methodology: quarterly surveys and products

5.1: In practical terms there are a number of other points to be made about this econometric system concerning:

- timing
- products or brands
- areas or regions.

For Table 2.1 (economic structure of the n^* firms constituting the sample and of the most important business units) and the three matrices of oligopolistic interdependence, there should be one year intervals (one set of tables for each year of the study period), whilst for the three Distribution Matrices, it would be better for direct local surveys on prices to be made every quarter, for instance from 15 to 20 January, 15 to 20 April and so on (one set of tables for each quarter of the period).

The study period should go back at least to 1968-69 for Table 2.1 and the three matrices of oligopolistic interdependence. However, it would be virtually impossible to use this Community methodology in order to carry out "retroactive" direct surveys of prices so that the three Distribution Matrices will be possible only from 1976.

5.2: As for the products, it would help comparisons along international lines if initially we took industrial food products:

- (a) manufactured by major multinational groups;
- (b) marketed in most Community countries;
- (c) having an appreciable impact on family budgets, particularly as regards purchasing and consumption frequency (daily, weekly, monthly).

One point of twofold importance in establishing the sample concerns the selection of products; first of all, information must be fairly easy and cheap to obtain and, secondly, meaningful and consistent country-to-country comparisons must be possible.⁺ Another general point is that in each country, within each product classification, the most widely sold brand or brands will be selected, even if these differ from one country to another. Here, there will also be the problem of own-label products; there are a number of goods which the major chain stores distribute under their own brand or name (especially preserved foods). Hence, for sales points not belonging to such chains, it will be necessary to find a brand which is equivalent to the own label brand as regards attractiveness to the consumer (and not only in terms of quality and quantity).⁺⁺ At a later stage, the product sample will gradually be extended so as to give a systematic analysis in each Community country of the most frequently represented food categories and brands. Furthermore, it may be advisable to extend the surveys to cover goods which, although not food products as such, are nevertheless frequently sold at food sales points (such as detergents of different types and brands, household insecticides, a few other household products).

Selection of areas - interpretation of results

5.3: As we have already seen, a pilot survey will initially be carried out in no more than one area or region per country (London, Munich, Aarhus, Turin, Montpellier). Thereafter, the experience acquired with these pilot surveys will be used to increase the number of areas or zones, so that between six and ten will be covered in each Community country. In France, for instance,

-
- + On the basis of suggestions of the various experts and research institutes, a tentative list of products for the first stage of the local price survey has been worked out. It includes the following products (some popular brands in individual countries are given in brackets):
- children's foods, such as: vegetables and meat, carrot and apricot preparations, biscuits, etc. (Heinz, Gerber, Guigoz, Farley's, Nutricia);
 - biscuits, crackers, cakes, with or without chocolate (McVitie, Jacobs, Crawford's, Bahlsen, de Beukelaer, Brandt, Motta, Perugina, Ferrero, Cadbury);
 - Cornflakes and other breakfast cereals (Kellogg's);
 - cheeses: Cheddar, sliced cheese, processed cheese, cottage cheese, Brie, Camembert, Provolone, Bel Paese (Kraft, Milkana, Velveta, Gervais-Danone, Galbani, and others to be determined);
 - other products appearing under different brands such as: cocoa, coffee, tea, powdered or tinned milk, cream (Nestle, Maja), fish preserves (tuna, salmon etc.), flour, ices (Artic, Motta, Danone), frozen foods (peas, beans, fish fingers of well-known brands such as Iglo, Findus, etc.), tinned fruits (Del Monte, Armour), health foods, margarine, meat extracts, packeted soups, etc.

Certain very popular beverages will also have to be taken in (Pepsi-Cola, Coca-Cola, Fanta or similar orange drinks, Schweppes Indian Tonic, etc.).

- ++ New contracts may be concluded to finance this, if the Commission authorizes continuation of the surveys.

there might be eight areas, giving, in addition to Montpellier, the Paris conurbation, and Nantes, Lille-Roubaix, Grenoble, Bordeaux, Nancy, Strasbourg and Marseilles areas. Here it should be noted that whereas extending the scope of the product sample has very little impact on research costs, extending the survey areas and regions does push costs up more or less proportionately (travel expenses), one determinant being the number of sales points to be surveyed.

5.4: It must not be forgotten that all sales points (in all the survey areas) must be surveyed in the same week if results are to be comparable. This being so, the idea will be to keep the number of survey areas or regions and the number of sales points visited each quarter in each area or region as low as possible, and although experience may bring better counsel, 30 or 40 sales points, receiving quarterly visits in each survey area, would seem sufficient. Obviously, if the sampling method is to be applied so rigorously with such careful regard to economy, the results of these studies must be interpreted with extreme caution.

5.5: In other words, we must ensure that the economic analysis is not distorted because the sample is too small. General operational conclusions will thus be possible if certain common factors and other findings show an extremely high percentage of frequency as compared with the total number of cases studied, both as regards products and as regards sales points.

THE PRICE SURVEYS

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PART TWO

THE PRICE SURVEYS

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THE PRICE SURVEYS

1: INTRODUCTION

1.1: The Methodology presented in Part 1 of this Report indicated the purpose and need for a programme of research based upon the collection, at source, of food products' prices at the retail distribution level. The reader will, however, be aware when reading this Report (as is the author in writing it) that the methodological requirements have not been fully adhered to and more particularly that the full potential of research topics as provided by the comprehensive data base has not been realised. There are two reasons for this; first of all because the research has been approached very much along the lines of a pilot study in that the data as well as the Methodology is being tested, and secondly, the manipulation of multivariate data without the assistance of a computer is a formidable and in some cases impossible task. Having made this qualification, however, it should be made clear that the absence of any particular subject of research is not intended to imply a deficiency on the part of either the Methodology or the data, but merely represents that which is capable of being handled by one researcher.

1.2: Notwithstanding the above comments, what this research report has concerned itself with are topics which by their nature are supplementary to the direct methodological requirements. The data base has been utilised to focus upon the differences in unit prices between different sizes of the same Branded product, and notes the not inconsiderable incremental payments required for the smallest size of a product's range, compared with the largest. The Report assesses the degree to which particular retailers are committed to Own-Label marketing strategies as well as identifying the products which from our sample appear most commonly as Own-Label goods. A comparison of Branded and Own-Label prices reveals differences in their respective pricing behaviour, a contention which appears to be substantiated from the assessment of retailers' comparative pricing policies for Branded goods whereby some retailers, after the substitution of Own-Label products, become relatively more expensive, and others relatively cheaper. An attempt has been made to measure consumer choice, taking into account both Branded and Own-Label products as well as the full size range of each available. Theoretical levels of choice are shown to be high, certainly between shops, but within each shop this is tempered by the existence of lines that are out-of-stock and thereby not available for purchase.

1.3: A recent seminar on retailing* had as its theme "Retailers under Pressure", and whilst this was mainly concerned with the debate between planners and retailers on the emergent role of superstores and hypermarkets, the institutional arrangements which have come increasingly to bear upon the U.K. food industry during recent years were also recognised as factors contributing to this "pressure." These arrangements which were in force during the Price Surveys (with all but one remaining so) concern particularly the Price Code, food subsidies, the Price Check Scheme and to a lesser degree, metrication, and their effects upon food prices at the retail level. The Price Code requires food distributors to remain within their respective gross and net profit margin Reference Levels and one of the main ways in which such "fine-tuning" is achieved is by altering prices, either up or down as the case may be, and especially through the promotion of special low-price offers. The current programme of food subsidies was introduced in the United Kingdom in March 1974⁺ and concerns the following products: bread, butter, cheese, milk, tea and household flour. The last two items in this list have been included in the Price Survey analysis and on the 6th August 1976⁺ the level of Government subsidy was 8p. per lb for tea and 1p. per lb for flour. The Price Check scheme was a voluntary arrangement introduced by the Government whereby the prices of certain goods and services were held so as not to increase by more than 5 per cent., during the six months ended 15th August 1976. The food and drink items included in this scheme are as follows, and contained in it are many of the products for which price data were collected for the Price Surveys; standard bread (G.B. only), liquid milk, granulated sugar, frozen peas, many biscuits, sweets and chocolates, tea (in packets) cornflakes and some other breakfast cereals, beer including stout and lager, and cider.* Between the two Price Surveys which form the basis of this Report a few products became available in metric packs (e.g. salt, some biscuits, sugar) and any increase in absolute prices caused by slightly larger pack sizes has been accounted for in any price comparisons. Except for metrication, therefore, the effects of the other institutional arrangements have not been separately identified in this Report, but their presence and possible effects should nevertheless be borne in mind.

1.4: Finally it must be stressed that the Price Surveys were carried out in a relatively confined area, in shops located near to the commissioned institute's offices. Whilst being reasonably representative of a local situation therefore, it is but a microcosm of United Kingdom retailing as a whole. Certain of the relationships identified at the local level may well exist nationally but the full range of character and diversity of trading operations in the U.K. is not fully reflected.

* "Retailers under Pressure" - seminar theme. P.T.R.C. Education and Research Services Ltd. Summer Annual Meeting, University of Warwick, July 1976.

+ Trade and Industry. HMSO 6th August 1976. Page 370.

* Trade and Industry. HMSO 13th February 1976. Page 418.

2: THE DATA BASE

2.1: The basic data for this research report is comprised of observations on the retail prices of 154 food products in 28 shops in the Croydon area, recorded between 12th and 16th of January 1976 and again six months later, between 12th and 16th July 1976.

2.2: The definitive list of the individual items which together constitute the products sample (\bar{y}^*) is shown in Appendix 1, Table 1, from which it can be seen that fresh foods such as milk, eggs, bread and vegetables have been excluded. The figures listed down the left hand side of this Appendix table are the Branded product code numbers; those prefixed by "A" indicate an Own-Label equivalent whilst suffix letters 'a', 'b', 'c' and 'd' indicate successively larger sizes of the same Brand line. These code numbers appear in parenthesis after each product is mentioned. It is apparent, therefore, that the products sample has been restricted to what are perhaps the most commonly sought branded foods, which range from Canned Fish, Vegetables and Fruit, through Biscuits and Cakes to Frozen Foods. As well as branded goods, 16 own-label products which are directly comparable with their branded equivalents have been included in the total of 154 items. It should also be noted that the sample appears all the more extensive because more than just one size category of each brand has been included. The prices of the 154 products in the sample were collected from visits to 28 shops operated by 22 retail food distribution companies in the local Croydon area. The names of these shops, or in the nomenclature of the Methodology "sales points sample, $\bar{n} + \bar{m}$ ", are listed in Appendix 1, Table 2, together with their operators. During the six months interval between the First (t) and Second (t + 1) Price Surveys two shops ceased trading, so that two new stores were substituted for these in the Second survey.

2.3: Given that the prices of 154 goods were sought in 28 shops, and if every item was available, then this should produce a maximum of 4,312 price observations from each Price Survey. This, of course, is the idealised situation but which was not found, (indeed was not expected), to be the case in reality. The incidence of what can be termed "non-availability" was found to be quite marked; for example, at the First Prices Survey the

actual number of observations totalled 2,086 which as a ratio of non-availability is 51.6 per cent. However, this factor declined at the time of the Second Prices Survey to only 37.8 per cent., an improvement which is most likely attributable to the greater awareness of the researchers collecting the information after their experiences at the time of the First Survey.

2.4: The incidence of non-availability is particularly evident when one looks at individual products. At the First Prices Survey there were only two out of the 154 products that were available in all 28 shops. At the Second Prices Survey, there was only one such product. The degree of non-availability on a product-by-product basis may be seen by reference to the last columns of Appendix 1, Tables 3 and 4 which refer to the First and Second Price Surveys, respectively. The product group most seriously affected is that of Canned Fish, Fruit and Vegetables.

2.5: The phenomenon of non-availability has been mentioned at this stage of the Report because it serves to underline the fundamental problem encountered by this type of research; namely, that of obtaining the basis for a "shopping basket" or common sample of goods. The substitution of own-label goods may go some way in overcoming this but the problem is by no means solved. Indeed, it is tentatively held by this researcher that the attainment of a common sample of goods on the scale that the Methodology requires is an unreal proposition.

2.6: The main purpose of Appendix 1, Tables 3 and 4 is in presenting the basic data upon which this Report is based; that is the data on average retail prices for each product at each of the Surveys. The average prices are simple averages derived from the number of observations. For inclusion in these Tables, own-brands have been considered as one product in their own right being directly competitive with their branded equivalents. This means for example, that in Appendix 1, Table 3, own-brand A7a (Garden Peas) has an average price based upon the own-brands of 13 different shops.

2.7: The Methodology also requires the computation of mark-ups as applied to each product, or more particularly as applied by each retailer to each product. This is the second problem that this research has encountered. To calculate mark-ups one needs to know buying prices yet, for obvious reasons firms do not publish these, neither is a direct request to the companies themselves likely to produce a positive response, though this latter course remains to be attempted. The information contained in publicly available company accounts contains little to help us here, either. So, recourse has had to be made to a normative assumption; namely that all firms face a common buying price for each good. Such a common buying price is publicly available in a monthly supplement to the trade publication, "The Grocer", *

* The Grocer is published weekly by William Reed Ltd.

and entitled "The Price List". Analysis of this "List" for the months of our Price Surveys enables a common buying price to be stated for each product in our sample and comparison with the average retail prices already calculated allows mark-ups to be derived. Thus, two more comprehensive tables may be produced, Appendix 1, Tables 5 and 6 which show these derived mark-ups in both absolute and percentage terms for the First and Second Price Surveys, respectively. +

2.8: An important qualification attaches to these mark-ups and any interpretation placed upon them. This is that the buying prices extracted from "The Price List" are based upon data "supplied by manufacturers, importers or sole agents, and are for the smallest quantity they supply." The buying prices we have adopted for this Study, therefore, do not take account of the relative differences in purchasing power of the retailers included in our sample of shops. The actual buying prices enjoyed by some, if not all, of these retailers may be considerably less than assumed which means that the derived mark-ups could be larger than indicated in Appendix 1, Tables 5 and 6. Furthermore, to the extent that negative mark-ups imply that a product is being used as a loss-leader, then this may be evidence for cautionary interpretation as some of these products appear to be unlikely candidates for use in such selling techniques, e.g. coffee and Gerber baby foods.

+ Buying price data is only available for 106 items from the First Survey, and 113 items from the Second Survey. No buying price data is available for own-labels.

3: UNIT PRICES

3.1: The collection of retail price data on more than one size category of the same product enables us to examine and compare unit price differences. From both the First and Second Price Surveys there are 33 sets of such data available for analysis and these are presented in this section at Tables 3.1 and 3.2, respectively. The product data on sizes and average prices that appear in the second and third columns of these Tables are extracted directly from the appropriate tables in Appendix 1. From these two columns the unit prices are derived and presented in column four and against each product is set the Unit Price Index in the last column.

3.2: In general, product unit prices show an inverse relationship between size and price, that is, the smaller the size the greater the unit price. The exceptions in our survey were Marie Elisabeth Sardines (4), the only item to maintain this anomaly in both Surveys, and Saxa Salt (48), Spry 'Crisp 'n' Dry' Vegetable Oil (29) and Typhoo Tea Bags (66) which all showed cheaper unit prices in the First Survey. The difference for Typhoo Tea Bags (66) however, was marginal and that for Saxa Salt (48) can possibly be explained by packaging costs in that the larger size is sold in a sturdier cardboard drum.

3.3: The Unit Price Index for each product is presented in the last column of Tables 3.1 and 3.2 and has as its base measure (100) the size category of each product for which the greatest number of observations was recorded. This has been taken as a proxy representing the most popular size purchased and enables comparisons to be made of the relative expenditures between the smallest and largest size categories of each product. However, for two products in the First Prices Survey and three from the Second the criterion of setting the Index-base against the size having the greatest number of observations has been abandoned because the number of observations for the sizes was equal. Those five products are identified in the footnote to Tables 3.1 and 3.2 and in these cases the Index-base has been set against the size category ranking one above the smallest size available.

3.4: The following analysis is based on the results of the Second Prices Survey as presented in Table 3.2. Of the 33 sets of product observations, there are 7 cases* where the most popular item is that of the smallest size category available. With the Unit Price Index set against this smallest size it is possible to see the potential savings in unit price terms that may be achieved by buying in larger sizes. However, from our evidence it is immediately possible to contradict this expectation, for buying a 7 oz tin of Marie Elisabeth Sardines cost 19 per cent. more per oz. on average, than buying the smaller $4\frac{3}{8}$ oz size. For the other 6 products there are savings to be had by buying in sizes larger than those which appear to be most popularly demanded, yet the degree of saving varies with the type of product. Buying a 16 oz jar of Branston Pickle (24a) instead of an 11 oz jar (24) there is a saving, on average of 3.4 per cent. Similarly, the larger size of Saxa Salt (48a) represents a saving of 5.4 per cent. The savings to be had when buying larger quantities of beverages such as tea and coffee are marginal. For example, an 8 oz jar of Nestles Nescafe Instant Coffee (60a) is only 0.5 per cent. cheaper than buying a 4 oz jar (60), and for Maxwell House Instant Coffee (61/61a) the comparable reduction in expenditure is 1.4 per cent., whilst purchasing 144 Lyons Typhoo tea-bags (66) is only 1.8 per cent. less expensive than buying 72 Typhoo tea-bags (66a). The most significant unit price advantage appears to be in rejecting the most popular $\frac{1}{2}$ lb pack of Birds Eye (frozen) Garden Peas (85) in favour of the 1lb (85a) or 2lb (85b) packs where the savings on average in unit price terms are in the order of 17.1 per cent. and 31.6 per cent. respectively.

3.5: We can now look at the 26 products where the Unit Price Index whilst being set against the most popular size, is not set against the smallest size available. This allows us to see directly the additional relative units costs incurred when buying small sizes, and again a pattern of extremes is evident, varying from an extra 1.3 per cent. for the smallest size of Birds Eye Fish Fingers (83) to 38.1 per cent. for McDougall's Self-Raising Flour (46). The frequency distribution presented as Table 3.3 summarises the situation and identifies the products concerned.

3.6: From Table 3.3 some interesting points emerge. First of all, looking at the 0-10 per cent. range in this Table, there appear some competitive products of different manufacturers; namely, Spry Vegetable Oil (29) and Mazola Corn Oil (30), Lyons Tetley Tea Bags (64) and P.G. Tips Tea Bags (65), and Birds Eye (83) and Findus (84) Fish Fingers. Within the 10-20 per cent. range there are three Heinz products; that is, Baked Beans (6), Tomato Ketchup (26) and Salad Cream (27). Another Heinz product - Vegetable Soup (17) - has a large comparative unit price increase and is found in the 20-30 per cent. range. In the 30-40 per cent. range both McDougall's and Homepride's Self-Raising Flours occur. In the

* These 7 cases are Products No's. 4, 24, 48, 60, 61, 66 and 85.

latter case, the explanation for the disproportionate loading of unit price onto the smallest size available may be a penalty related to the characteristics of the commodity e.g. weight and bulk, whereas the presence of Heinz products in close proximity to each other in the ranges shown may be accounted for by a deliberate pricing policy which discriminates against the smaller sizes.

3.7: It is possible to extend this analysis of the additional relative unit costs attributable to buying small sizes of goods by ignoring the comparison between the smallest quantity and that defined as the most popular, and simply comparing the unit cost of the smallest with the unit cost of the largest size available. From the data in Tables 3.1 and 3.2, 29 and 32 sets of data, respectively, may be used (ignoring the cases where the smallest size does in fact have the lowest unit price). The first point to be made is that there is a general tendency for the percentage difference in unit price to be larger, the greater the number of sizes that are available for each product. There are some exceptions, but the relationship can be clearly seen in Table 3.4

3.8: Again the data from the Second Prices Survey is used for this analysis and in this respect the information in Table 3.4 may be collated and is represented in Table 3.5. Table 3.5 differs from Table 3.3 for two reasons; first of all it refers to 32 rather than 26 branded products and secondly because it is based upon a wider range of relative price/size differences. To this latter reason, therefore, may be attributed the slightly different ranking of products in Table 3.5.

3.9: Within the 0-10 per cent. range of Table 3.5 remains Spry Vegetable Oil (29) and Mazola Corn Oil (30), Tetley Tea Bags (64) and P.G. Tips Tea Bags (65), with the addition of Typhoo Tea Bags (66), and Birds Eye (83) and Findus (84) Fish Fingers. Two competing products of different manufacturers are introduced to this range; namely Nestles Nescafe Instant Coffee (60) and General Food's Maxwell House Instant Coffee (61). The most paradoxical situation is perhaps that for frozen foods, whereby both Birds Eye (83) and Findus (84) Fish Fingers appear in the 0-10 per cent. range, yet their frozen Garden Peas (85 and 86) appear in the 30-40 per cent. range. Perhaps the most dramatic difference between Tables 3.5 and 3.3 is in relation to the Heinz products which in the latter Table were fairly closely grouped. As a result of the approach used in devising Table 3.5 these products are not now so closely related, their movements having been upwards in the scale of unit price differences; Heinz Baked Beans (6) in particular having shifted from the 10-20 per cent. range to the 40-50 per cent. range. It is also noteworthy that Smedley's Garden Peas (7) which in Table 3.3 ranked in the 30-40 per cent. range rises to the 60-70 per cent. range in Table 3.5

3.10: It is apparent therefore that the examination of unit price differences can yield a markedly different picture depending upon the product-size chosen for the Index-base. The first approach which used the

most popularly purchased size as the Index base may be valid when analysing the data solely from a consumer choice point of view. On the other hand, if one were to bring into the analysis production costs in relation to varying size categories of the same brand or product then from a manufacturers' point of view, the second method which compared the unit prices of the smallest and largest sizes of brands may perhaps be more appropriate.

3.11: It is possible from the data we have to combine unit retail price data and unit buying price data to derive a Unit Index of Mark-ups, by product. Such an analysis, for example, has been carried out for Heinz Baked Beans (6) and is presented here in Table 3.6. This Table shows that in relation to the most commonly purchased size category ($7\frac{3}{4}$ oz) the smallest (5 oz) size carries a disproportionate amount of loading by way of the Mark-up - the Index for which is 60 per cent. greater than for the $7\frac{3}{4}$ oz size. Of equal importance is the fact that the $15\frac{3}{4}$ oz size represents only 47 per cent. of the unit mark-up applied to the $7\frac{3}{4}$ oz size. This in itself says something of the way manufacturers apportion costs and hence how retailers apply mark-ups - whether this is in relation to true costs or is a matter of deliberate policy is another matter.

TABLE 3.1

Price Comparisons of different size categories of the same product

First Prices Survey

PRODUCT NO.	SIZE CATEGORY	AVERAGE PRICE (New Pence)	UNIT PRICE (all in New Pence per oz., unless otherwise stated)	UNIT * PRICE INDEX
2	3½ oz	26.50	7.57	126.2
2a	7½ oz	45.05	6.00	100
4	4⅜ oz	20.08	4.59	100
4a	7 oz	36.13	5.16	112.4
5	7 oz	33.25	4.75	109.2
5a	12 oz	52.21	4.35	100
6	5 oz	7.00	1.40	119.6
6a	7¾ oz	9.06	1.17	100
6b	15¾ oz	14.00	0.89	76.1
6c	28 oz	26.50	0.95	81.2
7	5 oz	7.36	1.47	130.1
7a	10 oz	11.32	1.13	100
7b	19 oz	18.25	0.96	84.5
8	9½ oz	12.79	1.35	100
8a	18 oz	18.83	1.05	77.8
9	10 oz	10.86	1.09	110.1
9a	15 oz	14.79	0.99	100
17	10 oz	11.35	1.14	100
17a	15¼ oz	13.19	0.86	75.4
19	3 servings	15.00	5.00 per serving	108.2
19a	6 servings	27.75	4.62 per serving	100
21	2 oz	17.90	8.95	108.1
21a	4 oz	33.14	8.28	100
21b	8 oz	63.67	7.96	96.1
21c	16 oz	127.80	7.98	96.4

PRODUCT NO.	SIZE CATEGORY	AVERAGE PRICE (New Pence)	UNIT PRICE		UNIT * PRICE INDEX
			(all in New Pence per oz., unless otherwise stated)		
22	2 oz	14.50	7.25		121.6
22a	4 oz	23.83	5.96		100
22b	8 oz	47.42	5.93		99.5
22c	16 oz	94.13	5.88		98.6
23	3½ oz	19.31	5.52		100
23a	6 oz	31.75	5.29		95.8
24	11 oz	22.54	2.05		100
24a	16 oz	27.71	1.73		84.4
26	7 oz	17.00	2.43		119.1
26a	12 oz	24.43	2.04		100
26b	15 oz	28.50	1.90		93.1
26c	20 oz	35.40	1.77		86.8
27	4¾ oz	15.00	3.43		117.5
27a	7 oz	20.47	2.92		100
27b	10 oz	28.33	2.83		96.9
27c	20 oz	52.00	2.60		89.0
28	10 oz	20.04	2.00		100
28a	16 oz	28.00	1.75		87.5
28b	20 oz	30.00	1.50		75.0
29	16½ oz	36.03	2.18		100
29a	32 oz	70.33	2.20		100.9
30	16oz-½ litre	35.85	2.24		100
30a	32oz-1 litre	65.71	2.05		91.5
34	8 oz	21.33	2.67		100
34a	12 oz	30.97	2.58		96.6
45	6 pints	11.50	1.92 per pint		100
45a	11 oz	18.86	1.71 per pint		89.1
45b	22 oz	37.75	1.71 per pint		89.1
46	1 lb	9.25	9.25 per lb		129.0
46a	3 lb	21.52	7.17 per lb		100
47	1 lb	9.42	9.42 per lb		132.1
47a	3 lb	21.38	7.13 per lb		100

PRODUCT NO.	SIZE CATEGORY	AVERAGE PRICE (New Pence)	UNIT PRICE		UNIT * PRICE INDEX
			(all in New Pence per oz., unless otherwise stated)		
48	1 lb	7.33	7.33 per lb		100
48a	1½ lbs	11.15	7.43 per lb		101.4
60	4 oz	40.90	10.22		100
60a	8 oz	78.67	9.83		96.2
61	4 oz	41.50	10.38		100
61a	8 oz	82.42	10.30		99.2
64	36 bags/4 oz	16.40	4.10		105.9
64a	72 bags/8 oz	30.94	3.87		100
64b	144 bags/16oz	60.62	3.79		97.9
65	36 bags/4 oz	16.50	4.12		103.0
65a	72 bags/8 oz	32.0	4.00		100
65b	144 bags/16oz	62.13	3.88		97.0
66	72 bags/8 oz	30.90	3.86		100
66a	144 bags/16oz	62.13	3.88		100.5
68	12 fl.oz	34.62	2.88 per fl. oz		100
68a	17½ fl.oz	45.95	2.62 per fl. oz		90.9
83	6 pack	23.26	3.89 per pack		110.8
83a	10 pack	35.11	3.51 per pack		100
83b	16 pack	55.00	3.44 per pack		98.0
84	6 pack	23.00	3.83 per pack		107.3
84a	10 pack	35.67	3.57 per pack		100
84b	14 pack	49.40	3.53 per pack		98.9
85	½ lb	15.67	1.96		128.9
85a	1 lb	24.32	1.52		100
85b	2 lb	46.56	1.46		96.0
86	½ lb	15.90	1.99		124.4
86a	1 lb	25.50	1.60		100
86b	2 lb	42.93	1.34		83.8

* The base (100) for the Unit Price Index is set against the Size Category for which the greatest number of observations was recorded, the exceptions being for Product No's 9/9a, and 86/86a, where the number of observations was equal.

TABLE 3.2

Price Comparisons of different size categories of the same product

Second Prices Survey

PRODUCT NO.	SIZE CATEGORY	AVERAGE PRICE (New Pence)	UNIT PRICE (all in New Pence per oz., unless otherwise stated)	UNIT * PRICE INDEX
2	3½ oz	30.21	8.63	126.9
2a	7½ oz	51.00	6.80	100
4	4¾ oz	18.44	4.21	100
4a	7 oz	35.08	5.01	119.0
5	7 oz	39.00	5.57	118.8
5a	12 oz	56.33	4.69	100
6	5 oz	7.32	1.46	118.7
6a	7¾ oz	9.57	1.23	100
6b	15¾ oz	14.54	0.92	74.8
6c	28 oz	27.45	0.98	79.7
7	5 oz	7.55	1.51	133.6
7a	10 oz	11.34	1.13	100
7b	19 oz	17.05	0.90	79.6
8	9½ oz	12.75	1.34	122.9
8a	18 oz	19.60	1.09	100
9	10 oz	11.17	1.12	115.5
9a	15 oz	14.50	0.97	100
17	10 oz	11.72	1.17	124.5
17a	15¼ oz	14.32	0.94	100
19	3 servings	14.64	4.88 per serving	107.7
19a	6 servings	27.21	4.53 per serving	100
21	2 oz	18.43	9.21	107.7
21a	4 oz	34.21	8.55	100
21b	8 oz	66.64	8.33	97.4
21c	16 oz	126.23	7.89	92.3

PRODUCT NO.	SIZE CATEGORY	AVERAGE PRICE (New Pence)	UNIT PRICE	
			(all in New Pence per oz., unless otherwise stated)	UNIT * PRICE INDEX
22	12 oz	15.07	7.53	110.7
22a	4 oz	27.19	6.80	100
22b	8 oz	50.78	6.35	93.4
22c	16 oz	94.55	5.91	86.9
23	3½ oz	19.30	5.51	106.8
23a	6 oz	30.95	5.16	100
24	11 oz	22.52	2.05	100
24a	16 oz	31.65	1.98	96.6
26	7 oz	16.78	2.40	118.2
26a	12 oz	24.40	2.03	100
26b	15 oz	28.64	1.91	94.1
26c	20 oz	35.41	1.77	87.2
27	4¾ oz	14.77	3.11	115.6
27a	7 oz	20.34	2.91	108.2
27b	10 oz	26.86	2.69	100
27c	20 oz	51.00	2.55	94.8
28	10 oz	21.68	2.17	121.9
28a	16 oz	28.47	1.78	100
28b	20 oz	-	-	-
29	16½ oz	34.44	2.09	102.4
29a	32 oz	65.44	2.04	100
30	16oz/½ litre	35.71	2.23	108.3
30a	32oz/1 litre	66.05	2.06	100
34	8 oz	19.78	2.47	102.5
34a	12 oz	28.93	2.41	100
45	6 pts	12.26	2.04 per pint	109.7
45a	11 oz	20.50	1.86 per pint	100
45b	1lb 6oz	38.74	1.76 per pint	94.6
46	1lb	9.32	9.32 per lb	138.1
46a	3lb	21.20	7.07 per lb	100
47	1lb	9.43	9.43 per lb	134.1
47a	3lb	21.35	7.12 per lb	100
48	1lb	9.04	9.04 per lb	100
48a	1½lb	12.77	8.51 per lb	94.6

PRODUCT NO.	SIZE CATEGORY	AVERAGE PRICE (New Pence)	UNIT PRICE		UNIT PRICE INDEX *
			(all in New Pence per oz., unless otherwise stated)		
60	4 oz	54.44	13.61		100
60a	8 oz	108.31	13.54		99.5
61	4 oz	54.31	13.58		100
61a	8 oz	107.10	13.39		98.6
64	36 bags/4oz	16.70	4.18		103.9
64a	72 bags/8oz	32.13	4.02		100
64b	144 bags/16oz	61.84	3.86		96.0
65	36 bags/4oz	16.73	4.18		108.8
65a	72 bags/8oz	30.86	3.86		105.2
65b	144 bags/16oz	61.36	3.84		100
66	72 bags/8oz	30.95	3.87		100
66a	144 bags/16oz	60.89	3.80		98.2
68	12 fl oz	34.16	2.85	per fl oz	109.2
68a	17½ fl oz	45.76	2.61	per fl oz	100
83	6 pack	24.28	4.05	each	101.3
83a	10 pack	39.97	4.00	each	100
83b	16 pack	59.77	3.73	each	93.3
84	6 pack	25.00	4.17	each	106.6
84a	10 pack	39.13	3.91	each	100
84b	14 pack	55.00	3.93	each	100.5
85	½ lb	15.45	1.93		100
85a	1lb	25.59	1.60		82.9
85b	2lb	42.20	1.32		68.4
86	½ lb	16.50	2.06		132.9
86a	1lb	24.77	1.55		100
86b	2lb	46.17	1.44		92.9

* The base (100) for the Unit Price Index is set against the Size Category for which the greatest number of observations was recorded, the exceptions being for Product No's 6a/6b, 28/28a, 34/34a, where the number of observations was equal.

TABLE 3.3

Additional unit prices payable when buying the smallest size available compared with the most popular size purchased

Additional % per Unit Price	No.	Products
0-10	12	Spry Crisp 'n' Dry Vegetable Oil, McVities Chocolate Homewheat, Tetley Tea Bags, Birds Eye Fish Fingers (frozen), Wondermash Instant Potato, Bovril, Colman's English Mustard, Mazola Corn Oil, Birds Custard Powder, PG Tips Tea Bags, Ribena Blackcurrant Drink, Findus Fish Fingers (frozen).
10-20	6	Libbys Corned Beef, Heinz Baked Beans, Hartley's Garden Peas, Heinz Tomato Ketchup, Heinz Salad Cream, Marmite.
20-30	4	Smedley's Sliced Green Beans, Heinz Vegetable Soup, HP Epicure Pickled Onions, John West Pink Salmon.
30-40	4	Smedley's Garden Peas, Homepride Self-Raising Flour, Findus Garden Peas (frozen), McDougall's Self-Raising Flour.
	26	

SOURCE: Second Prices Survey, data extracted from Table 3.2.

TABLE 3.4

Magnitude of Unit Price Differences between the smallest and largest size of each Product and the Number of Sizes per Brand available

Product No.	FIRST SURVEY		SECOND SURVEY	
	% Difference in Unit Price	No. Sizes Available	% Difference in Unit Price	No. Sizes Available
2	26.2	2	26.9	2
4	*	*	*	*
5	9.2	2	18.8	2
6	47.4	4	48.9	4
7	53.1	3	67.8	3
8	28.6	2	22.9	2
9	10.1	2	15.5	2
17	32.6	2	24.5	2
19	8.2	2	7.7	2
21	12.1	4	16.7	4
22	23.3	4	27.4	4
23	4.3	2	6.8	2
24	18.5	2	3.5	2
26	37.3	4	35.6	4
27	31.9	4	21.9	4
28	33.3	3	21.9	2
29	*	*	2.4	2
30	9.3	2	8.3	2
34	3.5	2	2.5	2
45	12.3	3	15.9	3
46	29.0	2	38.1	2
47	32.1	2	34.1	2
48	*	*	6.2	2
60	4.0	2	0.5	2
61	0.7	2	1.4	2
64	8.2	3	8.3	3
65	6.2	3	8.8	3
66	*	*	1.8	2
68	9.9	2	9.2	2
83	13.1	3	8.6	3
84	8.5	3	6.1	3
85	34.2	3	46.2	3
86	48.5	3	43.0	3

* These products had the lowest Unit Price attributed to the smallest size category.
SOURCE: Derived from Tables 3.1 and 3.2.

TABLE 3.5

Additional unit prices payable when buying the smallest size available

Additional % per Unit Price	No.	Products
0-10	15	Branston Pickle, Spry Crisp 'n' Dry Vegetable Oil, McVities Chocolate Homewheat, Nestles Nescafe Instant Coffee, Maxwell House Instant Coffee, Typhoo Tea Bags, Wondermash Instant Potato, Colman's English Mustard, Mazola Corn Oil, Saxa Salt, Tetley Tea Bags, PG Tips Tea Bags, Ribena Blackcurrant Drink, Birds Eye Fish Fingers (frozen), Findus Fish Fingers (frozen).
10-20	4	Libbys Corned Beef, Hartley's Garden Peas, Bovril, Birds Custard Powder.
20-30	6	Smedley's Sliced Green Beans, Heinz Vegetable Soup, Heinz Salad Cream, HP Epicure Pickled Onions, John West Pink Salmon, Marmite.
30-40	3	Homepride Self-Raising Flour, Heinz Tomato Ketchup, McDougall's Self-Raising Flour.
40-50	3	Findus Garden Peas (frozen), Heinz Baked Beans, Birds Eye Garden Peas (frozen).
50-60	0	-
60-70	1	Smedley's Garden Peas.
32		

SOURCE: Second Prices Survey, data extracted from Table 3.2

TABLE 3.6

Unit Index of Mark-Up - an example using Heinz Baked Beans

	(New Pence)			
	5 oz	$7\frac{3}{4}$ oz	$15\frac{3}{4}$ oz	28 oz
Average Retail Price	7.00	9.06	14.00	26.50
Unit Retail Price (per oz)	1.40	1.17	0.89	0.95
Unit Index	119.6	100	76.1	81.2
Assumed Buying Price	5.8	7.9	12.9	22.5
Unit Buying Price (per oz)	1.16	1.02	0.82	0.80
Unit Index	113.7	100	70.7	68.9
Derived Mark-up	1.2	1.16	1.1	4.0
Unit Mark-up (per oz)	0.24	0.15	0.07	0.15
Unit Index	160	100	47	100

NOTE: The base for the Unit Index (100) is taken in relation to the most popular size, the latter being determined in relation to the number of observations.

4: BRANDED AND OWN-LABEL GOODS - ASPECTS OF AVAILABILITY AND PRICE

Availability

4.1: Product non-availability emerged as a problem during the analysis of the Prices Survey data and its incidence was discussed earlier in this Report at Section 2. Given the fairly high levels of non-availability at both Price Surveys the question arose as to whether this was a reasonable basis upon which to infer that retailers were restricting consumer choice by not offering certain items for sale. "Interviewers", when collecting the price data were not specifically required to check with shop managers whether goods not displayed were out-of-stock or just not regular stock items. It was decided because of this that the Price Survey data alone was inadequate upon which to base a judgement that could be only too misleading.

4.2: To overcome this problem, therefore, a self-completion questionnaire was sent to each operator of the stores in our sample. A facsimile of the questionnaire, together with a list of the firms which responded, is set out in Appendix 2. The questionnaire which concerned 28 Branded products and their Own-Label equivalents selected at random, was designed not only to elicit information on availability, but also to explore the stocking relationships between Branded and Own-Label goods, and the comparable "depths"* of Branded and Own-Label product ranges.

4.3: The existence in our sample of 28 products of fast moving lines of nationally advertised brands is shown in Table 4.1 where some 11 Brands were stocked by all 12 shops and a further 7 Brands by 11 shops. The Brands least likely to be stocked appear, from the replies, to be Glenryck Pilchards (3) and Hartley's Garden Peas (9). The presence of an "0" in the second column of Table 4.1 indicates the type of products which from our sample tend not to be Own-branded, and there are four of these; namely, Pilchards, Bovril meat extract,

* The "depth" of a product range is taken to mean the different number of sizes available for each product.

Cookeen cooking fat, and Lucozade health drink. As both Bovril (21) and Marmite (22) as Brands and as meat extracts may be considered similar products one may not expect to see a comparable Own-Label being stocked for both lines. Indeed, this is the case, yet there are only three instances of an equivalent for Marmite (22) appearing as an Own-Label in Table 4.1. Other products which show a tendency to not being stocked by retailers as Own-Brands are Salmon, Porage Oats, and Cocoa.

4.4: It is evident from Table 4.1 that the most frequently stocked Brands also tend to appear most often as Own-Labels. This implies that a considerable range of choice exists for the following products: Salad Cream, Tinned Soup, Baked Beans (the only product to be stocked in all 12 shops as both a Branded and an Own-Label good), Margarine, Salt, Flour, Custard Powder, Evaporated Milk, Sterilised Cream, Instant Coffee, Tea Bags and Blackcurrant health drink. It is noteworthy, also, that the Own-Label most likely to be stocked more often than the Branded equivalent used in this sample, is tinned Garden Peas.

4.5: The extent to which the respondent retailers operate an Own-Label policy is indicated in Table 4.2. The first column of this Table represents the number of brands stocked (maximum 28) at the time of our questionnaire, where at least one size category of each Brand was carried. The second column sets out the number of equivalent Own-Label lines. Each of the Co-op's that took part in this survey can be seen to be consistent in stocking the maximum number of Branded products as well as stocking the same number of Own-Labels as each other. However, what is important is not so much the number of Own-Label products stocked by each shop, but rather the ratio of Own-Labels to Brands. In this respect, the retailer with the least significant Own-Branding policy appears to be Oakeshotts (Sales Point No. 5) with an Own-Label ratio of only 8.6. At the other extreme, the Sainsbury branches at Addiscombe (Sales Point No. 8) and in Croydon's Whitgift Centre (Sales Point No. 1) have ratios of 141.6 and 95.2, respectively, and represent the retailer from our sample which pursues the most dominant Own-Labeling approach. Safeway, Tesco, Fine Fare, and Bishops (Sales Point Nos. 4, 13, 14, 16, respectively) all come close to having three-quarters of Branded goods replicated by Own-Labels.

4.6: The pattern of Own-Labeling policies can be further substantiated by taking account of not only the degree of comparability between Brands and Own-Labels offered but also product "depth" - that is the number of sizes available in each Brand or Own-Label line. The results of the questionnaire can be used to show that whereas Safeway, Tesco, Fine Fare and Bishops had in Table 4.2 around 75 per cent. penetration by Own-Labels on a brand-by-brand basis, Table 4.3 in accounting for "depth" reveals a slightly different pattern of choice. In this Table Tesco are shown to offer 11 products equally available in terms of "depth" for both Brands and Own-Labels, compared with Bishops 10, Fine Fare 9 and Safeway 6. On the other hand, each of these four shops,

except Bishops, offered 8 Own-Label products with a smaller size range than the comparable Brands available. The Sainsbury shops have the greatest number of occurrences where their Own-Label lines have a greater "depth" than the equivalent Brands as well as offering more Own-Labels without any corresponding Brand. Oakeshott's comparatively weak Own-Labeling approach is further underlined in Table 4.3 which shows that of its 2 Own-Label lines, both are available in a smaller size range than the equivalent Branded goods. Sainsbury's dominant Own-Branding policy is reinforced by Table 4.3 whilst Tesco would appear to offer a more extensive choice in terms of "depth" as between Brands and Own-Labels.

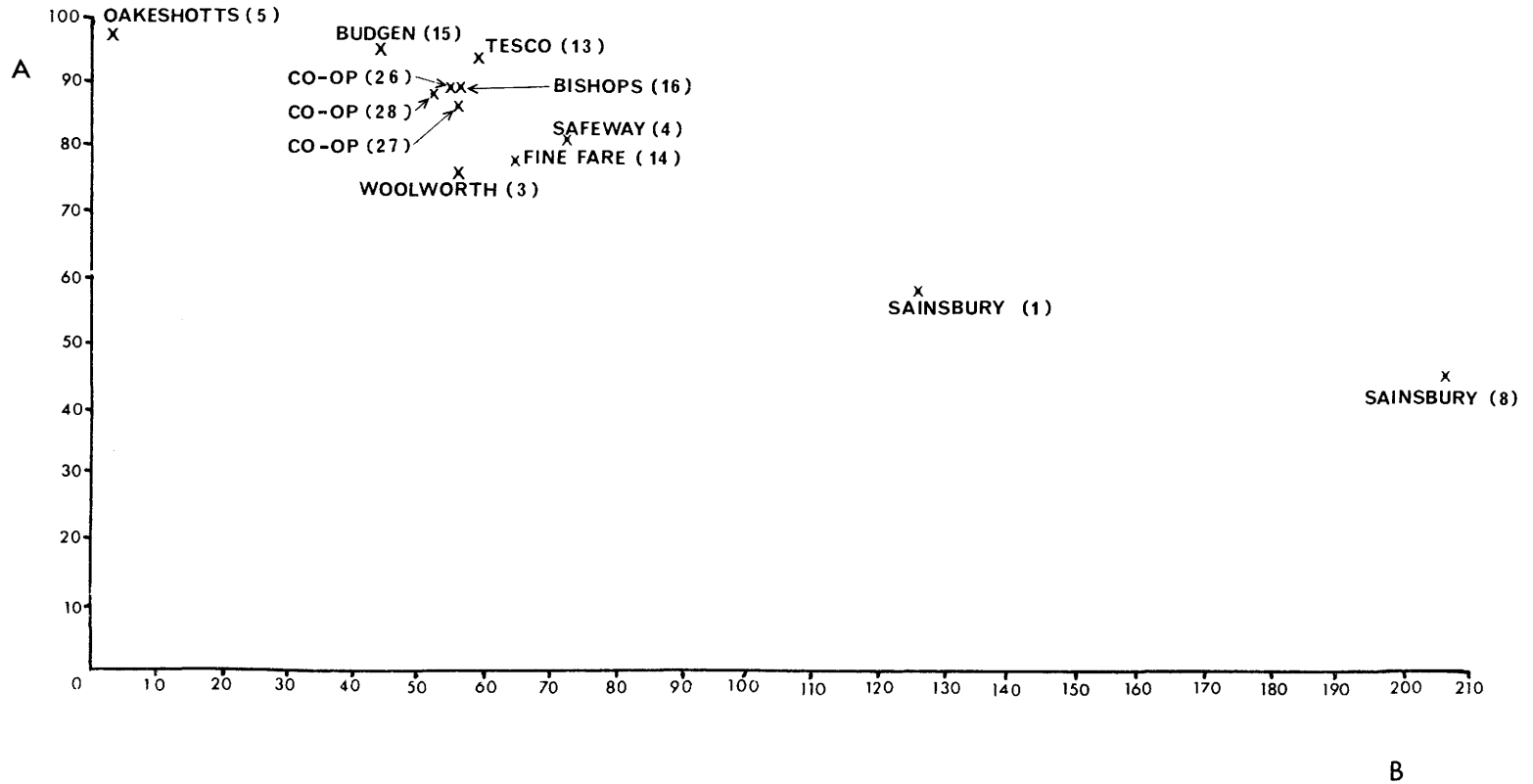
4.7: The relative range of choice offered by the retailers responding to the questionnaire can be more closely examined by combining a measure of Brand choice with a measure for Own-Label choice. The basis of these measures lies in determining the total number of sizes stocked for each Brand available from the manufacturer and summing to one cumulative figure. Thus, column (1) of Table 4.4 shows, for example, that Tesco's 27 Branded lines equal a potential choice of some 74 items which are available from food manufacturers. Repetition of this summing procedure for the Brands actually stocked is shown in column (2) of Table 4.4 as 69 for this same retailer, whilst for the 20 Own-Label lines the cumulative measure is 41. A penetration factor for Brand choice can therefore be shown by the ratio of column (2): column (1) and for Own-Label choice by the ratio of column (3): column (2). These ratios, derived from the data in Table 4.4, are presented for each shop in Table 4.5, and shown graphically in Graph 1.

4.8: The low choice-ratios shown for Sainsbury in column A of Table 4.5 together with high choice-ratios for Own-Labels again emphasises this operator's significant Own-Branding policy. The low Brand choice factors imply that where Sainsbury stocks a particular Brand it is likely that it only offers as little as one size of the Brand's full range. Oakeshotts appears as offering the most comprehensive range of choice in terms of Brand "depth" available from manufacturers, closely followed by Budgen and Tesco. The most equitable balance, however, between relative choices of Branded and Own-Label goods is that available from Safeway (80.9 Branded ratio c.f. 72.7 Own-Label) and Fine Fare (77.1 Branded ratio c.f. 64.8 Own-Label). It does appear to be the case, therefore, that there is a considerable element of repetition of choice between Branded and Own-Label lines in the outlets of the retailers replying to the questionnaire. However, the greater the degree of involvement in Own-Labeling the more likely is choice restricted to such lines. What is not specifically revealed by the Tables is that where both Brands and Own-Labels of the same product are offered it is sometimes the case that the largest size of Own-Label available will be larger than that for the largest size of the Brand, and is no doubt another dimension to aspects of choice.

***GRAPH 1 : Relationship between Penetration Factors for Branded and Own-Label products**

B : Ratio of Own-Label Depth : Brand Depth

A : Ratio of Brand Depth : Brand Depth available from Manufacturer



* based upon Table 4.5. Figures in parenthesis are Sales Point Nos.

4.9: Turning to the problem of non-availability, it has been possible to take retailers' answers to the questionnaire on the Branded products they stock and compare these with the results of what was available in the shops at the time of the Second Prices Survey. Thus, the "apparent discrepancy" revealed by this comparison is set out in Table 4.6 which is based upon the 28 Brand lines (or 59 items allowing for "depth") surveyed. If all the items claimed to be stocked were in fact regular stock items at the time of the Second Prices Survey then the incidence of non-availability for the questionnaire based sample is 24.1 per cent. compared to 37.8 per cent. actually encountered at the Prices Survey for 154 items in 28 shops. (See earlier paragraph 2.5). This apparent discrepancy can be interpreted as an out-of-stock situation, yet it remains to be decided how far this is reasonable given the magnitude of the stock-outs shown in the last column of Table 4.6 and is a point worth pursuing in discussion with retailers. The implied out-of-stock position for Oakeshotts in this Table is 36.2 per cent., that for one of the Co-ops 32.7 per cent., whilst for another Co-op it is only 14.3 per cent., the lowest in the list. There may be many qualifications to be placed upon interpreting these figures of general levels of out-of-stock situations for each of the retailers, not least in importance being the fact that the Second Prices Survey was conducted in July 1976 and the retailers questionnaire distributed and completed during October 1976 during which time policies may have changed. Nevertheless, the figures do lend some weight to the author's contention that it is unrealistic to hope that all products will be available in the shops at the same time when a Price Survey is being carried out.

4.10: Finally, Table 4.7 shows the frequency with which the apparent discrepancy arises for the products considered. There are 9 products claimed by the retailers to be stock items and which were, in fact, in stock at the time of the Prices Survey. In addition, there are 15 and 14 products showing a discrepancy of only 1 and 2, respectively. However, these results bear little relation to the Second Prices Survey results where only one product was available in all shops, only 8 in all but one shop and only 5 in all but two shops.

Price

4.11: One of the benefits that appear to be available to consumers is in buying the products offered by retailers Own-Label marketing strategies because of the favourable price differential between these and the equivalent Branded goods. Such comparisons have been made for the First and Second Prices Surveys and are presented in Tables 4.8 and 4.9 respectively; no account has been taken of comparative quality.* It should perhaps be restated that the average prices of the Branded goods are based upon observations amongst 28 shops and for Own-Labels the basis of the average price is the same, which

* However, "Which?" (the magazine of the Consumer Association) indicates in its October 1976 edition that tests on Own-Label goods often show little difference in quality compared to their Branded equivalents.

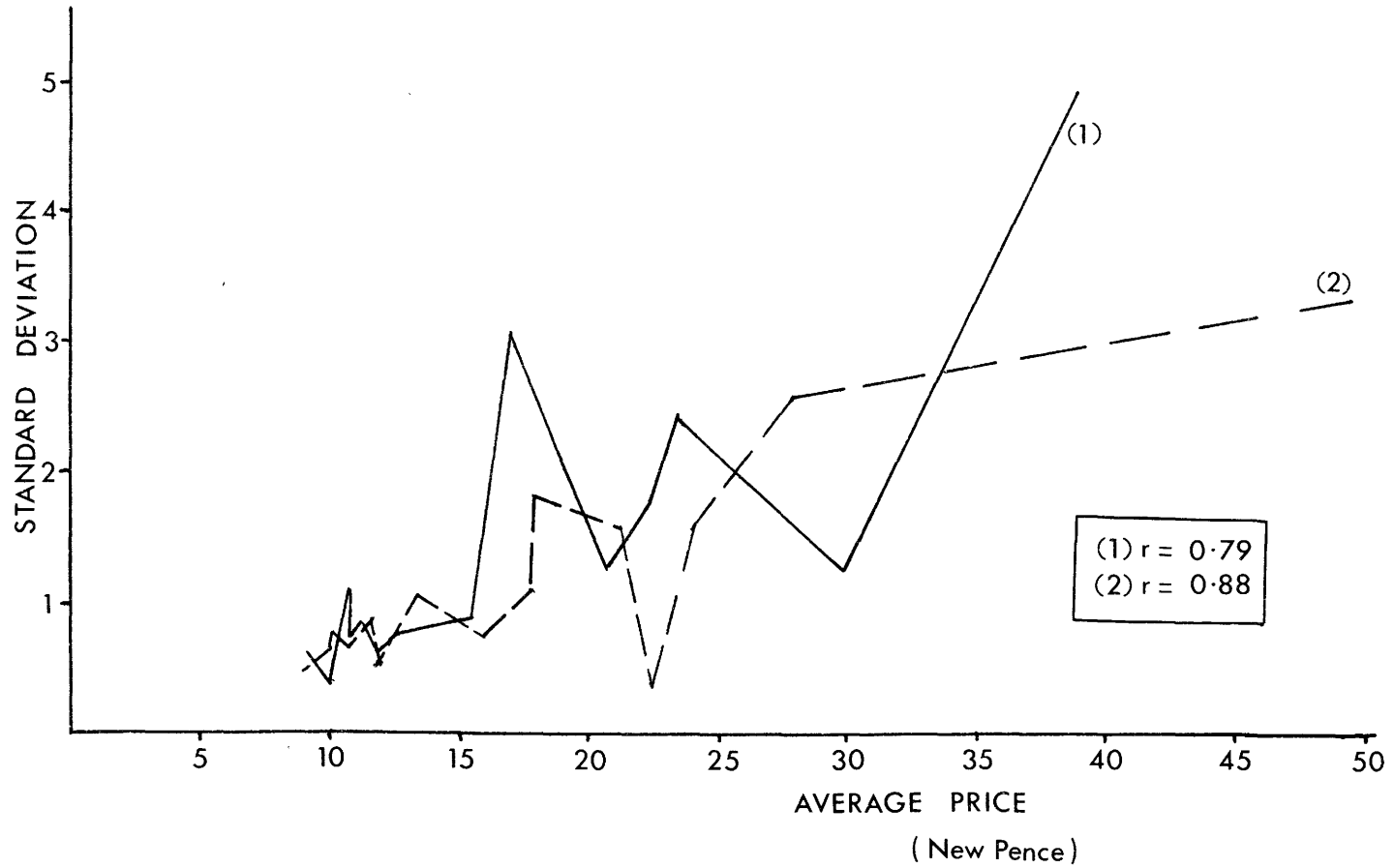
has the effect of presenting the Own-Label as a directly competitive 'brand.' Thus, the differential shown in Tables 4.8 and 4.9 is a general indication of the level of extra expenditure that could be incurred by buying Brands or conversely the level of savings that could be enjoyed through purchasing Own-Labels. The items which offer the greatest savings by purchasing Own-Labels generally appear to be cheese spread (A81), flour (A46a) and vegetable oil (A29), whilst the smallest differences appear for canned shandy (A72) and evaporated milk (A74).

4.12: The data in Tables 4.8 and 4.9 are brought together in Table 4.10 so that changes in the differential between the two Price Surveys may be clearly seen. Of the 15 sets of comparative data, 8 show a narrowing of this differential, explained primarily by the greatest increase in average price being attributable to the Own-Label goods, whilst for 7 it has widened. It would seem that while these differentials remain and inflation does not abate, some significant savings in absolute terms may be had by buying Own-Labels.

4.13: Further analysis of the data on Own-Label and Brand prices reveals notable differences in the pricing behaviour of the two classes of goods. This contention must remain an hypothesis at this stage because the basis for it is founded upon our sample of observations of only 16 Own-Label and Branded products. Nevertheless, the evidence that may be adduced is that of a comparison between average retail prices for each product and its associated measure of dispersion, i.e. the standard deviation. In Table 4.11 the appropriate data is set out for Own-Label products in both the First and Second Price Surveys and the trend which may be discerned is that generally the higher the average price, the higher the standard deviation. Indeed, the pattern is made all the more clear by the representation in Graph 2 and by the significant degree of correlation attached to each of the two series, i.e. First series (1), $r = 0.79$ and Second series (2), $r = 0.88$. However, when the same analysis is applied to the equivalent Branded goods from the Second Price Survey the strength of the observed relationship falls to $r = 0.41$ (c.f. $r = 0.88$ for Own-Label).

4.14: The comparison of Branded and Own-Label data is set out in Table 4.12 and Graph 3, and from the Table it can be seen that for 11 of the 15 products the standard deviation attributable to the Branded goods exceeds the corresponding measure for Own-Label goods. Now, using our example, the standard deviation provides a measure of the degree to which individual prices, whilst contributing to a mean, are in fact dispersed around that mean. By this definition, therefore, it is likely that there is both a greater total range of prices for Branded goods as well as the likelihood of more different prices being encountered within that range, than for Own-Label goods. If the extent to which prices fluctuate around a mean can be taken as a measure of competition (irrespective of location) then the relatively wider dispersion for Branded goods may simply be a reflection that such goods are heavily advertised on a national basis compared to Own-Labels which receive little, if any,

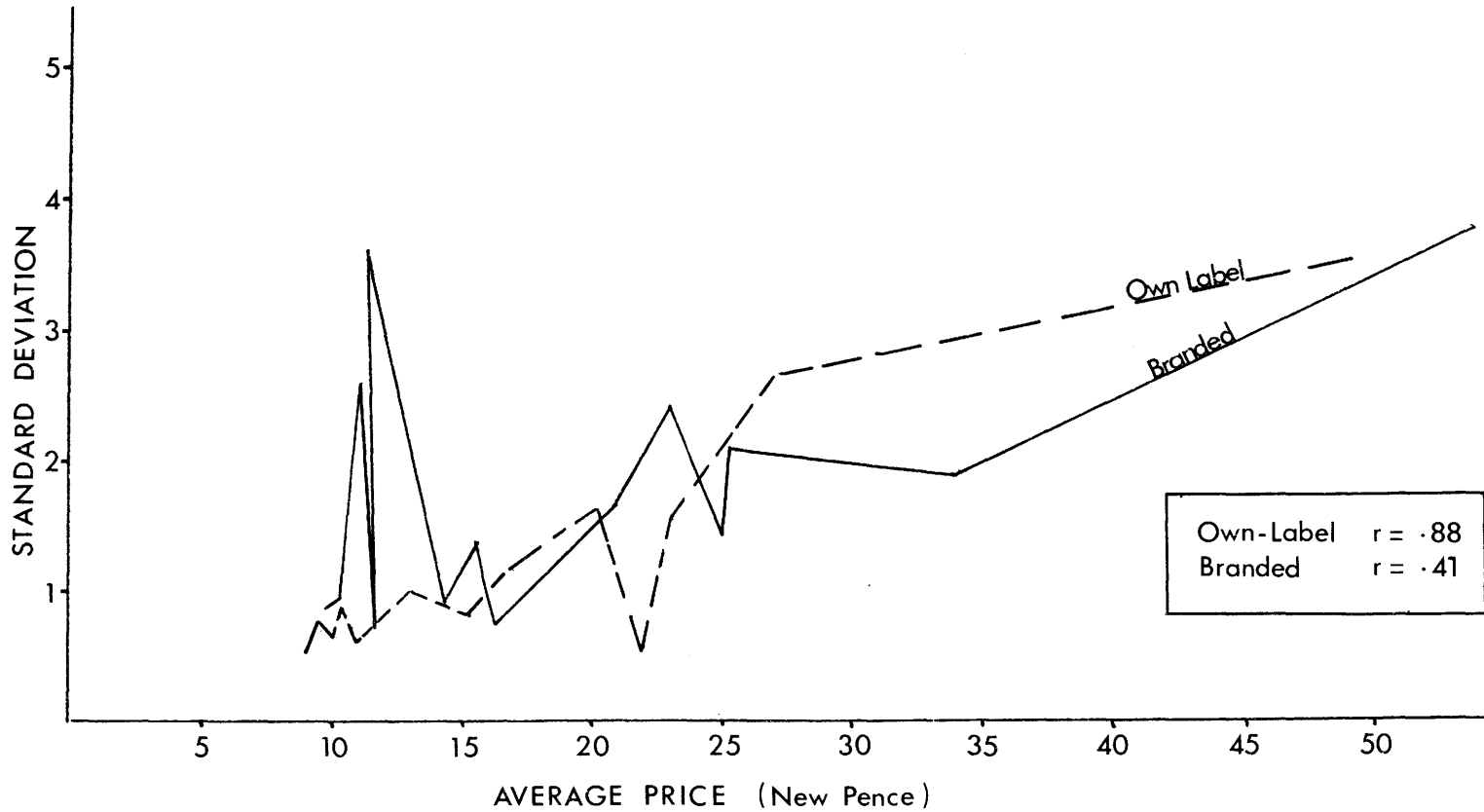
*GRAPH 2 : Relationship between Average Retail Price and Standard Deviation for 16 Own-Label Products at the First (1) and Second (2) Prices Surveys



72

* based upon Table 4.11

* GRAPH 3: Relationship between Average Retail Price and Standard Deviation for 15 comparable Branded and Own-Label Products



* based upon Table 4.12

similar attention. The corollary to this aspect of competition is that a classification could be devised to identify particular products as being of a more competitive nature than others but such competition would need to be qualified by factors such as relative frequency of purchase, that higher-priced products per se offer a greater potential for price cutting, as well as recognising the price differentials that retailers may endeavour to maintain between Branded goods and their Own-Label counterparts.

4.15: That different retailers pursue different pricing policies for both their Branded and Own-Label lines in relation to average product prices, emerges in the following section which is concerned with Implied Pricing Policies.

TABLE 4.1

Number of Shops Stocking Selected Branded and Own-Label Products

Product No.	Product	No. of Shops Stocking the Products*	
		Brands	Own-Label Equivalents
	John West Pink Salmon	10	3
	Glenryck Pilchards	7	0
	Hartley's Garden Peas	5	10
	Heinz Tomato Ketchup	11	8
	Heinz Salad Cream	11	11
	Heinz Tinned Soup	12	11
	Heinz Baked Beans	12	12
	Bovril	11	0
	Marmite	11	3
	Stork Margarine	12	11
	Cookeen	10	0
	Saxa Salt	10	9
	McDougalls Self-Raising Flour	12	11
	Birds Custard Powder	12	11
	McVities Home Wheat	11	9
	Jacobs Cream Crackers	12	9
	Kelloggs Corn Flakes	12	8
	Scotts Porage Oats	11	3
	Robertson's Golden Shred	12	9
	Carnation Evaporated Milk	12	11
	Nestles Sterilised Cream	12	10
	Nestles Nescafe Instant Coffee	12	11
	Tetley Tea Bags	11	11
	Cadbury Cocoa	10	3
	Ribena	9	9
	Lucozade	10	0
	Birds Eye Garden Peas	10	7
	Birds Eye Fish Fingers	9	6

SOURCE: D.A. Questionnaire, Appendix 2.

* Where at least one size of the product was stocked.

TABLE 4.2

Stock Ratio of Own-Labels to Brands

Sales Point No.	Sales Point	No. of Brands (out of a possible 28)	No. of Equivalent Own-Labels (out of a possible 28)	Ratio of Own-Labels to Brands
13	Tesco	27	20	74.1
15	Budgen	28	16	57.1
1	Sainsbury	21	20	95.2
8	Sainsbury	12	17	141.6
4	Safeway	25	19	76.0
26	Co-op	28	19	67.8
27	Co-op	28	19	67.8
28	Co-op	28	19	67.8
3	Woolworth	27	17	62.9
16	Bishops	27	19	70.4
14	Fine Fare	26	19	73.1
5	Oakeshotts	23	2	8.6

SOURCE: D.A. Questionnaire, Appendix 2.

TABLE 4.3

Relationship between Brand and Own-Label "depth" *

Total No. O/L's offered (1)	Total No. Brands offered (2)	Sales Point (3)	Instances where Own-Label "Depth" EQUALS Branded Depth (4)	Instances where Own-Label "Depth" EXCEEDS Branded Depth (5)	Instances where Own-Label "Depth" LESS THAN Branded Depth (6)	Own-Label offered but No Brand (7)	Brand offered but no Own-Label (8)
20	27	Tesco	11	1	8	Nil	7
16	28	Budgen	8	1	7	Nil	12
20	20	Sainsbury	6	7	3	4	4
17	12	Sainsbury	5	4	Nil	8	3
19	25	Safeway	6	4	8	1	7
19	28	Co-op	5	4	10	Nil	9
19	28	Co-op	4	5	10	Nil	9
19	28	Co-op	4	4	11	Nil	9
17	27	Woolworth	10	1	5	1	11
19	27	Bishops	10	2	6	1	9
19	26	Fine Fare	9	1	8	1	8
2	23	Oakeshotts	0	0	2	Nil	21

SOURCE: D.A. Survey, Appendix 2.

* please note: column (4) + (5) + (6) + (7) = column (1)
 column (4) + (5) + (6) + (8) = column (2)

TABLE 4.4

Cumulative measures of Branded Own-Label "Depth"

Sales Point	Brand "Depth" available from Manufacturer (1)	Brand "Depth" actually stocked (2)	Own-Label "Depth" actually stocked (3)
Tesco	74	69	41
Budgen	76	72	32
Sainsbury	58	34	43
Sainsbury	31	14	29
Safeway	68	55	40
Co-op	75	67	37
Co-op	76	66	37
Co-op	76	67	35
Woolworth	72	55	31
Bishops	70	62	35
Fine Fare	70	54	35
Oakeshotts	61	59	2

SOURCE: D.A. Survey, Appendix 2.

TABLE 4.5

Penetration Factors for Brand and Own-Label Choice

Sales Point No.	Sales Point	Ratio of Brand "Depth" Stocked to Brand Depth available from Manufacturers (A)	Ratio of Own-Label "Depth" Stocked to Brand "Depth" Stocked (B)
13	Tesco	93.2	59.4
15	Budgen	94.7	44.4
1	Sainsbury	58.6	126.5
8	Sainsbury	45.2	207.1
4	Safeway	80.9	72.7
26	Co-op	89.3	55.2
27	Co-op	86.8	56.1
28	Co-op	88.2	52.2
3	Woolworth	76.4	56.4
16	Bishops	88.6	56.4
14	Fine Fare	77.1	64.8
5	Oakeshotts	96.7	3.4
		83.5	58.9

SOURCE: D.A. Survey, Appendix 2.

TABLE 4.6

Apparent Discrepancy Analysed by Shops

Sales Point No.	Sales Point	In stock at 2nd Prices Survey (1)	Stocked according to Questionnaire* (2)	Apparent Discrepancy (3)	Col. 3 as % Col. 2
13	Tesco	49	58	9	15.6
15	Budgen	45	59	14	23.7
1	J. Sainsbury	22	30	8	26.7
8	J. Sainsbury	10	12	2	16.7
4	Safeway	38	46	8	17.4
26	Co-op	43	56	13	23.2
27	Co-op	48	56	8	14.3
28	Co-op	37	55	18	32.7
3	Woolworth	33	45	12	26.7
16	Bishops	43	54	11	20.4
14	Fine Fare	31	47	16	34.0
5	Oakeshotts	30	47	17	36.2
		429	565	136	24.1

TABLE 4.7

Frequency of Apparent Discrepancy Analysed by Products

Frequency of Discrepancy	No. Products*
0	9
1	15
2	14
3	6
4	6
5	5
6	3
7	1
	59

* The Questionnaire concerned 28 Brand lines; taking account of the different size categories raises the number of products to 59.

TABLE 4.8

Price Comparisons of branded and own-label goods

First Prices Survey

Product No.	Size	Average Retail Price (new pence)	Differential
7a	10 oz	11.32	16.8
A 7a	10 oz	9.69	
29	16½ oz	36.03	23.3
A 29	16½ oz	29.21	
37	7 oz	12.08	11.9
A 37	7 oz	10.79	
46a	3lb	21.52	21.9
A 46a	3lb	17.65	
58	11b	22.65	12.3
A 58	11b	20.17	
59	11b	26.40	16.8
A 59	11b	22.60	
60	4 oz	40.90	8.1
A 60	4 oz	37.82	
62	4 oz	10.20	13.7
A 62	4 oz	8.97	
71	11.5 fl oz	11.37	20.9
A 71	11.5 fl oz	9.40	
72	11.5 fl oz	11.65	10.9
A 72	11.5 fl oz	10.50	
73	Bottle	26.31	20.9
A 73	Bottle	21.75	
74	1¾ pints	16.04	8.4
A 74	1¾ pints	14.80	
76	6 oz	13.98	15.6
A 76	6 oz	12.09	
77	8 oz	11.50	11.5
A 77	8 oz	10.31	
81	3½ oz	16.14	58.7
A 81	3½ oz	10.17	

TABLE 4.9

Price Comparisons of Branded and Own-Label Goods

Second Prices Survey

Product No.	Size	Average Retail Price (new pence)	Differential
7a	10 oz	11.34	14.8
A 7a	10 oz	9.88	
29	16½ oz	34.44	26.1
A 29	16½ oz	27.31	
37	7 oz	14.00	26.9
A 37	7 oz	11.03	
46a	3lb	21.20	23.4
A 46a	3lb	17.18	
58	1lb	23.78	15.3
A 58	1lb	20.63	
59	1lb	25.98	9.9
A 59	1lb	23.64	
60	4 oz	54.44	12.5
A 60	4 oz	48.40	
62	4 oz	10.35	14.6
A 62	4 oz	9.03	
71	11.5 fl oz	11.66	20.2
A 71	11.5 fl oz	9.70	
72	11.5 fl oz	11.58	8.3
A 72	11.5 fl oz	10.69	
73	bottle	25.50	14.4
A 73	bottle	22.29	
74	1¾ pints	16.40	7.4
A 74	1¾ pints	15.27	
76	6 oz	14.48	9.6
A 76	6 oz	13.21	
77	8 oz	11.78	14.7
A 77	8 oz	10.27	
81	3½ oz	15.83	43.4
A 81	3½ oz	11.04	

TABLE 4.10

Comparison of Retail Price Differential between Branded and Own-Label Goods
First and Second Price Surveys

Product No.	1st Survey Differential	2nd Survey Differential
A 7a)	16.8	14.8
A 29)	23.3	26.1
A 37)	11.9	26.9
A 46a)	21.9	23.4
A 58)	12.3	15.3
A 59)	16.8	9.9
A 60)	8.1	12.5
A 62)	13.7	14.6
A 71)	20.9	20.2
A 72)	10.9	8.3
A 73)	20.9	14.4
A 74)	8.4	7.4
A 76)	15.6	9.6
A 77)	11.5	14.7
A 81)	58.7	43.4

TABLE 4.11

Comparison of average retail price, standard deviation, standard error, and number of observations (N) for 16 Own-Label products

Product No.	Average Price (New Pence)	N	Standard Deviation	Standard Error
<u>FIRST PRICES SURVEY</u>				
A 7a	9.69	13	.773	.214
A 29	29.21	14	1.249	.334
A 37	10.79	12	.593	.171
A 46a	17.65	17	2.331	.565
A 56	16.18	16	2.967	.742
A 58	20.17	18	1.258	.297
A 59	22.60	20	2.390	.534
A 60	37.82	20	4.874	1.090
A 62	8.97	18	.634	.149
A 71	9.40	11	.417	.126
A 72	10.50	15	.753	.194
A 73	21.75	16	1.820	.455
A 74	14.80	22	.874	.186
A 76	12.09	16	.755	.188
A 77	10.31	16	.788	.197
A 81	10.17	12	1.196	.345
<u>SECOND PRICES SURVEY</u>				
A 7a	9.88	20	.737	.165
A 29	27.31	16	2.645	.661
A 37	11.03	17	.726	.176
A 46a	17.18	19	1.138	.261
A 56	17.43	14	1.831	.489
A 58	20.63	19	1.516	.348
A 59	23.64	22	1.501	.320
A 60	48.40	20	3.448	.771
A 62	9.03	16	.514	.129
A 71	9.70	10	.678	.214
A 72	10.69	8	.827	.292
A 73	22.29	7	.488	.184
A 74	15.27	22	.764	.163
A 76	13.21	17	1.000	.242
A 77	10.27	15	.654	.169
A 81	11.04	12	.608	.175

TABLE 4.12

Comparison of average retail prices, standard deviation, standard error and number of observations (N) as between Branded and Own-Label Products

Second Prices Survey

Product No.	Average Price (New Pence)	N	Standard Deviation	Standard Error
7a	11.34	16	0.879	.220
A 7a	9.88	20	0.737	.165
29	34.44	16	1.767	.442
A 29	27.31	16	2.645	.661
37	14.00	25	1.327	.265
A 37	11.03	17	0.726	.176
46a	21.20	26	1.591	.312
A 46a	17.18	19	1.138	.261
58	23.78	27	2.386	.459
A 58	20.63	19	1.516	.348
59	25.98	26	2.050	.420
A 59	23.64	22	1.501	.320
60	54.44	17	3.796	.921
A 60	48.40	20	3.448	.771
62	10.35	27	0.844	.162
A 62	9.03	16	0.514	.129
71	11.66	16	3.586	.897
A 71	9.70	10	0.678	.214
72	11.58	6	2.590	1.058
A 72	10.69	8	0.827	.292
73	25.50	2	1.414	1.000
A 73	22.29	7	0.488	0.184

TABLE 4.12

Cont'd.

Product No.	Average Price (New Pence)	N	Standard Deviation	Standard Error
74	16.40	26	.721	.141
A 74	15.27	22	0.764	.163
76	14.48	25	0.888	.178
A 76	13.21	17	1.000	.242
77	11.78	27	0.711	.137
A 77	10.27	15	.654	.169
81	15.83	27	1.326	.255
A 81	11.04	12	.608	.175

5: IMPLIED PRICING POLICIES

5.1: It is the purpose of this final section to indicate, in relative terms, the different pricing policies that can be deduced from the Price Survey data as between retailers, on the one hand, and between Brands and Own-Labels, on the other.

5.2: Rather than using all the observations on the prices of 154 goods in each of the Surveys this analysis has been confined to Branded goods which had 20 or more price observations at each Survey, simply for the ease and convenience of manipulating data. Nevertheless, there are 42 products conforming to this definition from the First Prices Survey and 56 from the Second comprising some 956 and 1302 price observations from each Survey, respectively. The data relating to these products is set out in Appendix 3, Tables 1 and 2.

5.3: The research has taken the following form in determining a comparative measure of different retailers pricing behaviour:-

- (1) to express each price observation as a deviation (+ or -) from the products' mean price;
- (2) to express these product deviations as percentages;
- (3) to sum each of the product deviations on a shop-by-shop basis and to divide this by the total number of observations - thereby deriving a mean deviation in percentage terms;

Thus, (4) we have a global measure of the tendency to which particular shops price their products in relation to the average for Branded goods as a whole.

5.4: A first set of results can be presented to show in broad-terms the degree to which particular retailers price their Branded products either above or below the means for each product. This is shown in Tables 5.1 and 5.2

for the First and Second Price Surveys and is based solely upon a count of the positive and negative deviations. Some 15 or just over half of the shops in the First Survey, had 51 per cent. or more of the sample products in their respective shops priced above average product prices. This pattern is broadly replicated by the Second Price Survey with some 17 shops exceeding the 51 per cent. threshold, the notable additions being the Wavy Line (Sales Point No. 29) and Alliance (Sales Point No. 30) shops each with around 80 per cent. of products priced above average. On the other hand, one of the Keymarkets shops (Sales Point No. 2) is shown at the First Survey to have 72.2 per cent. of its products priced below average prices whilst both Keymarket shops (Sales Points No. 2 and 9) at the Second Survey had over 80.0 per cent. of products priced in this manner.

5.5: The resultant percentage mean deviations for Branded goods attained after application of the procedure described in para. 5.3 (above) can be used as a basis for generalisations about retailers' pricing policies. Discussion of these implied policies will, however, be confined to the Second Price Survey data although the tables of results applying to the First Prices Survey can be found in Appendix 3. Thus, the Second Survey results are presented here in Table 5.3, the figures of interest at this stage being the rank order of mean deviations in column (2) of this Table.

5.6: Correct interpretation of Table 5.3 is very important. The figures are not specifically intended to show that it is cheaper or dearer to buy goods in one shop as opposed to any other but rather that each shop identified tends to price its Branded goods above or below the average for Branded goods as a whole, by the magnitude of the value shown. Thus, on the one hand it can be implied that Wavy Line (Sales Point No. 29) tends to price its Branded goods at + 5.606 per cent. above the average, whilst on the other one of the Keymarkets' shops (Sales Point No. 2) prices at - 5.546 per cent. of the average. Across the whole spectrum of values from + 5.606 to - 5.546 there are 11 shops with positive mean deviations and 17 showing negative values, and it is the case for the latter that its maximum is reached at a generally slower rate than for the corresponding maximum positive value. For example, between 0 and - 1.000 there occur some 7 shops whilst there is only one shop between 0 and + 1.000. Similarly, there are only 4 positive values between + 1.000 and + 2.000 against 6 negative values within that comparable range. The maximum values for each extreme are attained after two fairly sharp steps; namely, from + 3.950 to + 4.285 to + 5.606 and from - 2.904 to - 4.872 to - 5.546.

5.7: The different styles of trading and location that may contribute some explanation towards the pricing variations are not explicitly evident from Table 5.3, although this will be the subject of a later paragraph. However, it is pertinent to note that the shops ranking 1 to 5 (inclusive), that is those with the most "expensive" policies are either independently owned or members of voluntary groups. The multiple food retailer which ranks highest in this table of relative pricing policies is Budgen, which ranks sixth. That different pricing policies appear to be adopted by shops within the same trading group is

evidenced by the different rankings of the 3 Co-operative stores, (Sales Point Nos. 26, 27, 28) and the 2 Tesco stores (Sales Point Nos. 6, 13).

Nevertheless, the difference in mean deviation between Co-op stores number 27 and 28 may not be all that significant as is likely with the Sainsbury stores numbers 1 and 8. The two Keymarkets shops emerge quite clearly to represent a retailer which by comparison with other stores within the Survey area is likely to have the "cheapest" prices for its Branded goods. It is apparent from the foregoing analysis, therefore, that considerable variations in pricing policy have been encountered within a relatively confined survey area.

5.8: Having derived a pattern of pricing policies based upon Branded goods it was decided that where possible in each of the shops, the equivalent Own-Label goods should be substituted for Brands to see if any changes in relative pricing policies resulted. This has been done, and the results are presented in column (3) of Table 5.3. A comparison of this column with column (2) reveals a very interesting difference; namely, that after the substitution of Own-Labels some shops become relatively more expensive. Now this in itself may be contrary to expectations given that earlier sections of this Report have demonstrated Own-Labels to have a favourable price advantage over comparable Brands. Yet, what this difference allows us to infer is that there are different pricing policies for Brands and Own-Labels amongst the same retail outlets.

5.9: Before setting out the evidence for this proposition it is worthwhile examining more closely the differences between columns (2) and (3) in Table 5.3. The most striking differences are revealed at the extremes of the ranking of mean deviations, where, for example, the top 5 "dearest" shops become (with one exception) relatively cheaper through the substitution of Own-Labels. Conversely, most of the shops in the lower orders of the ranking on the basis of Branded goods become relatively more expensive after the substitution of Own-Labels. The notable incongruity is perhaps Keymarkets where one of its shops (Sales Point No. 2) becomes relatively cheaper and the other (Sales Point No. 9) becomes relatively dearer. Table 5.4 shows how rank order changes after substituting Own-Labels: eleven of the 28 shops remain in the same position whilst 13 move to within ± 3 places of their Branded positions. The four most significant moves shown by this Table are for Fine Fare (Sales Point No. 14) which changes from 9th to 13th, the Co-op shop (Sales Point No. 27) which rises to 10th from 14th, another Co-op shop (Sales Point No. 26) rises from 22nd to 18th, and a Sainsbury shop (Sales Point No. 1) moves to 25th from being 19th.

5.10: Returning to the implied differences in pricing policies as between Own-Label goods on the one hand, and Brands on the other, the reason that this arises from our research is in the distinction maintained between average Brand prices and average Own-Label prices. The substitution of Own-Labels (where available) for the relevant Brands in Table 5.3 resulted in shops becoming either relatively "dearer" or "cheaper", the extent to which this occurred depending upon the degree to which a particular shops' Own-Label

products were placed in terms of positive or negative deviations from Own-Label average prices. It is possible, therefore, to take the Brands and the Own-Labels substituted for them in each shop (i.e. in moving from column (2) to column (3) in Table 5.3) and compare the percentage mean deviations in each shop for each of these classes of goods. (The method is exactly the same as that described at para. 5.3, above). The results of this analysis are set out in Graph 4 which allows generalisations to be made about the shops relative pricing policies for Branded and Own-Label goods, in relation to the 4 pricing quadrants identified.

5.11: The shops included in the 4 quadrants are as follows:

QUADRANT A: Prices greater than the average for both Brands and Own-Labels.

Sales Point No.	14	Fine Fare
	15	Budgen
	22	Londis
	23	Spar
	29	Wavy Line

QUADRANT B: Prices greater than the average for Brands, less than the average for Own-Labels.

Sales Point No.	7	Caters
	17	Wallis
	30	Alliance

QUADRANT C: Prices less than the average for both Brands and Own-Labels.

Sales Point No.	1	Sainsbury
	2	Keymarkets
	3	Woolworths
	4	Safeway
	5	Oakeshotts
	6	Tesco
	9	Keymarkets
	16	Bishops
	26	Co-op
	28	Co-op

QUADRANT D: Prices less than the average for Brands, greater than the average for Own-Labels.

Sales Point No.	8	Sainsbury
	11	International Stores
	12	Waitrose
	13	Tesco
	20	Foodrite
	25	International Stores
	27	Co-op

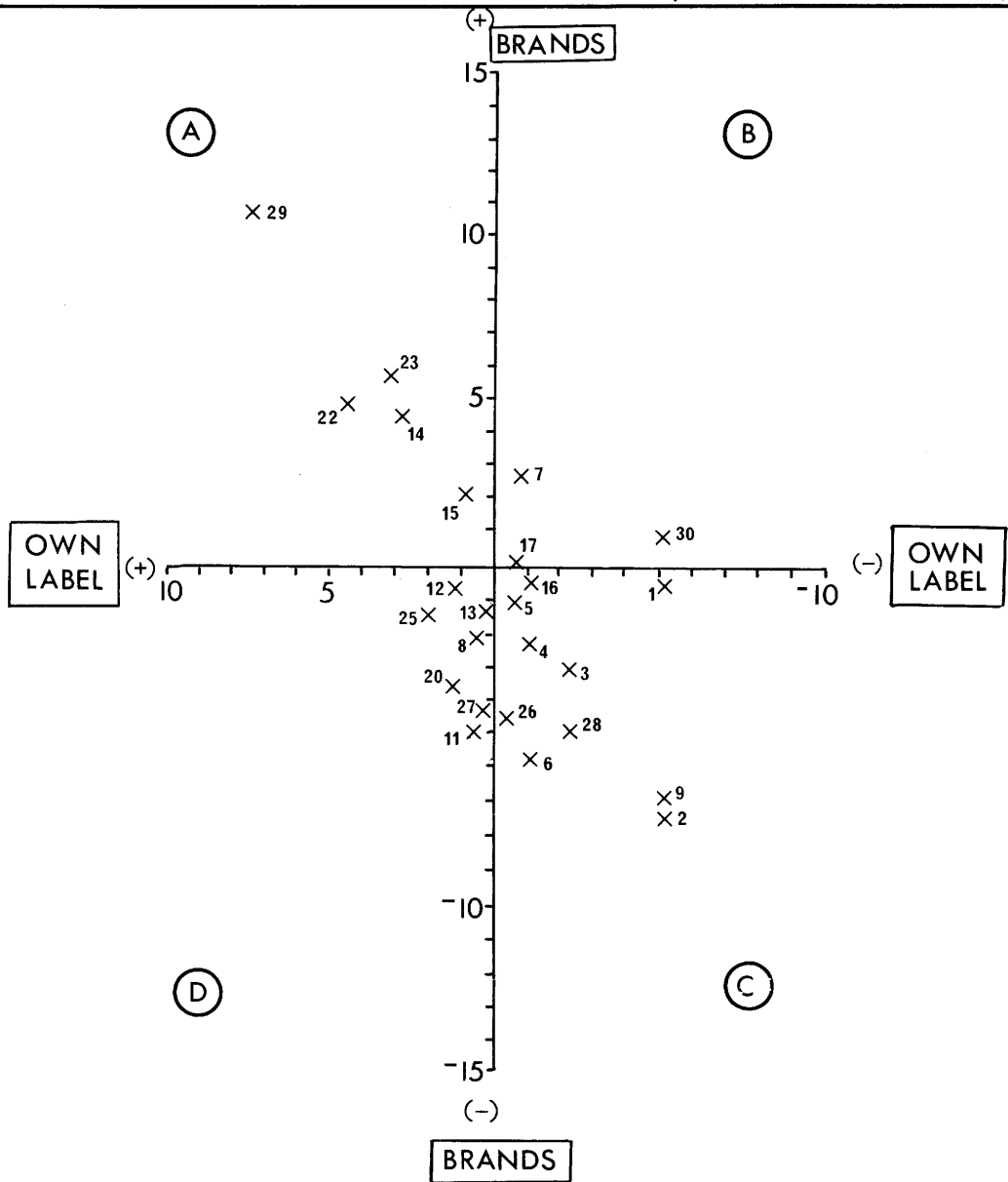
It should be noted that Sales Point Nos. 19, 20 and 24 do not appear above or in Graph 4 because there were no Own-Label products which could be substituted. The retailers at the extremes of the rankings in Table 5.3 appear again at the extremes of Graph 4. Wavy Line (Sales Point No. 29) appears to price both its Branded and Own-Label goods considerably above average product prices, while the 2 Keymarkets shops (Sales Point Nos. 2 and 9) represent the anti-thesis of this apparent policy.

5.12: There are, however, some inconsistencies between the shops appearing in the Quadrants defined above, and those in the ranking of Table 5.3. Oakehotts (Sales Point No. 5) should perhaps be in Quadrant B, Caters (Sales Point No. 7) in Quadrant D and Wallis (Sales Point No. 17) in Quadrant C. Notwithstanding these three discrepancies the pattern of pricing policies displayed in Graph 4, based upon a small sample of products, is reasonably representative of the situation set out in Table 5.3. In the light of these findings it would seem that examination of a wider range of price differentials between Brands and Own-Labels on a product-by-product and shop-by-shop basis would be very useful.

5.13: Little mention has so far been made concerning how pricing policies may vary according to variations in shop size, location and function. However, the sample of sales points has been analysed to account for these differing criteria and the matrix of Sales Point Categories so derived is defined in Appendix 4 and forms the framework for the following analysis which is based upon the same sample of Branded products with 20 + price observations at the Second Prices Survey and measures of mean deviations in percentage terms.

5.14: Table 5.5. shows clearly the trend towards relatively lower prices as shop size increases, although the large supermarkets (+ 8,000 sq. ft) seem to be relatively more expensive than their smaller counterparts (4,000 - 7,999 sq. ft.). That the Branded goods become relatively more expensive with increasing distance from the town centre is also evident with the independent/voluntary groups exhibiting the largest positive mean deviations from average Branded prices. Table 5.6 shows the same functional/locational analysis after substituting Own-Labels for the comparable Brands with the same basic relationships being maintained.

* GRAPH 4 : THE FOUR PRICING QUADRANTS (\pm percent Mean Deviations)



THE 4 QUADRANTS

- A: Greater than the average for both Brands and Own-Labels
- B: Greater than the average for Brands, less than the average for Own-Labels
- C: Less than the average for both Brands and Own-Labels
- D: Less than the average for Brands, greater than the average for Own-Labels

SOURCE: Second Prices Survey, Own-Label substitutes and their comparable Brands.

* Figures are Sales Point Nos.

TABLE 5.1

Proportion of Brands priced Above or Below average prices

* First Prices Survey

Sales Point No.	Sales Point	Proportion of Brands Priced:			Base for + percentages
		Above Average	At the Average	Below Average	
1	Sainsbury	41.7	2.7	55.6	36
2	Key Markets	22.2	5.6	72.2	36
3	Woolworth	35.5	-	64.5	31
4	Safeway	28.9	2.7	68.4	38
5	Oakeshotts	62.9	3.8	33.3	27
6	Tesco	51.4	5.4	43.2	37
7	Caters	72.2	2.8	25.0	36
8	Sainsbury	64.3	-	35.7	14
9	Key Markets	29.7	5.4	64.9	37
10	Oakeshotts	86.7	-	13.3	30
11	International Stores	58.8	3.0	38.2	34
12	Waitrose	40.0	2.5	57.5	40
13	Tesco	36.8	2.7	60.5	38
14	Fine Fare	34.5	-	65.5	29
15	Budgen	57.1	-	42.9	35
16	Bishops	47.0	-	53.0	34
17	F.J. Wallis	42.8	2.9	54.3	35
18	Liptons	40.6	-	59.4	32
19	W.H. Cullen	75.0	-	25.0	40
20	Foodrite	50.0	3.1	46.9	32
21	Walton, Hassell & Port	72.2	-	27.8	36
22	Londis	67.6	5.4	27.0	37
23	Spar	74.1	-	25.9	27
24	Old Coulsdon Stores	75.0	-	25.0	40
25	International Stores	66.7	3.0	30.3	33
26	Co-op	57.9	-	42.1	38
27	Co-op	52.5	-	47.5	40
28	Co-op	50.0	-	50.0	34
29	...	...	...	...	...
30	...	...	...	...	...

SOURCE:

+ Base for Percentages is the total number of price observations (out of 42) in each shop.

* based upon Brands with 20+ price observations.

TABLE 5.2

Proportion of Brands priced Above or Below average prices

* Second Prices Survey

Sales Point No.	Sales Point	Proportion of Brands Priced:			Base for + percentages
		Above Average	At the Average	Below Average	
1	Sainsbury	36.1	2.8	61.1	36
2	Key Markets	15.7	3.9	80.4	51
3	Woolworth	47.8	-	52.2	46
4	Safeway	34.6	1.9	63.5	52
5	Oakeshotts	63.4	2.5	34.1	41
6	Tesco	50.0	1.9	48.1	52
7	Caters	52.9	-	47.1	51
8	Sainsbury	37.5	6.2	56.3	16
9	Key Markets	14.6	2.1	83.3	48
10	...	...	...	...	...
11	International Stores	52.0	-	48.0	50
12	Waitrose	34.6	-	65.4	52
13	Tesco	49.1	-	50.9	55
14	Fine Fare	70.0	-	30.0	40
15	Budgen	74.5	-	25.5	47
16	Bishops	46.9	-	53.1	49
17	F.J. Wallis	41.7	2.0	56.3	48
18	...	...	...	...	...
19	W.H. Cullen	78.6	-	21.4	42
20	Foodrite	55.6	2.2	42.2	45
21	Walton, Hassell & Port	70.0	2.0	28.0	50
22	Londis	71.7	2.2	26.1	46
23	Spar	65.7	-	34.3	35
24	Old Coulsdon Stores	76.9	-	23.1	52
25	International Stores	54.2	-	45.8	48
26	Co-op	54.9	-	45.1	51
27	Co-op	55.8	-	44.2	52
28	Co-op	61.2	-	38.8	49
29	Wavy Line	80.4	-	19.6	46
30	Alliance	80.8	1.9	17.3	52

SOURCE:

+ Base for Percentages is the total number of price observations (out of 56) in each shop.

* based upon Brands with 20+ price observations.

TABLE 5.3

Implied Retail Pricing Policies ⁺

Second Prices Survey

* Rank (1)	% Mean Deviation on Basis of Branded items (2)	% Mean Deviation after substitution of Own-Labels (3)	Operator (4)	Sales Point No. (5)
1	+ 5.606	+ 4.692	Wavy Line	29
2	+ 4.285	+ 4.054	Alliance	30
3	+ 3.950	+ 3.950	W.H. Cullen	19
4	+ 3.613	+ 3.613	Old Coulsdon Stores	24
5	+ 3.367	+ 3.323	Londis	22
6	+ 2.359	+ 1.593	Budgen	15
7	+ 1.958	+ 1.958	Walton, Hassell & Port	21
8	+ 1.803	+ 1.778	Oakeshotts	5
9	+ 1.787	+ 0.210	Fine Fare	14
10	+ 1.704	+ 1.116	Spar	23
11	+ 0.119	+ 0.281	Co-op	28
12	- 0.107	+ 0.275	International Stores	25
13	- 0.240	- 0.121	Caters	7
14	- 0.270	+ 0.537	Co-op	27
15	- 0.481	- 0.259	Tesco	13
16	- 0.659	- 0.508	Waitrose	12
17	- 0.718	+ 0.150	Foodrite	20
18	- 0.917	- 0.292	International Stores	11
19	- 1.027	- 2.275	Sainsbury	1
20	- 1.041	- 1.121	Bishops	16
21	- 1.187	- 0.624	Sainsbury	8
22	- 1.193	- 0.346	Co-op	26
23	- 1.304	- 1.173	Woolworth	3
24	- 1.999	- 2.088	Wallis	17
25	- 2.481	- 1.827	Tesco	6
26	- 2.904	- 2.678	Safeway	4
27	- 4.872	- 5.055	Key Markets	9
28	- 5.546	- 4.559	Key Markets	2

+ BASIS: Sample of Products with 20+ observations.

* Ranked according to Column (2).

TABLE 5.4

Change in Ranking after Substitution of Own-Labels

Second Prices Survey

* Ranking (1)	Sales Point No. and Operator (2)	Ranking after substitution of Own-Labels (3)	Column (3) c.f. Column (1)	
			Same	Within ± 3
			(4a)	(4b)
1	29 Wavy Line	1	×	
2	30 Alliance	2	×	
3	19 W.H. Cullen	3	×	
4	24 Old Coulsdon Stores	4	×	
5	22 Londis	5	×	
6	15 Budgen	8		×
7	21 Walton, Hassell & Port	6		×
8	5 Oakeshotts	7		×
9	14 Fine Fare	13	██████████	
10	23 Spar	9		×
11	28 Co-op	11	×	
12	25 International Stores	12	×	
13	7 Caters	15		×
14	27 Co-op	10	██████████	
15	13 Tesco	16		×
16	12 Waitrose	19		×
17	20 Foodrite	14		×
18	11 International Stores	17		×
19	1 Sainsbury	25	██████████	
20	16 Bishops	21		×
21	8 Sainsbury	20		×
22	26 Co-op	18	██████████	
23	3 Woolworth	22		×
24	17 Wallis	24	×	
25	6 Tesco	23		×
26	4 Safeway	26	×	
27	9 Key Markets	27	×	
28	2 Key Markets	28	×	

* Ranked according to Column (2).

TABLE 5.5

Implied Pricing Policies - (Branded Goods) - % Mean Deviations

Analysed by Sales Point Category Size, Location and Function

Second Prices Survey

	Small Self Service 1999 sq. ft. <Sales Area	Large Self Service 2000-3999 sq. ft. Sales Area	Supermarket 4000-7999 sq. ft. Sales Area	Large Supermarket 8000 + sq. ft. Sales Area
<u>TOWN CENTRE</u>				
Multiple	+ 1.803	-	- 2.904	- 2.438
Voluntary/Independent	-	-	-	-
Co-op	-	-	- 1.193	-
Food Hall	-	-	-	- 1.304
<u>PRIMARY SUBURBAN CENTRE</u>				
Multiple	+ 0.968	+ 2.359	- 2.058	- 0.659
Voluntary/Independent	-	-	-	-
Co-op	-	+ 0.270	-	-
<u>SECONDARY SUBURBAN CENTRE</u>				
Multiple	+ 3.950	+ 0.048	- 1.999	-
Voluntary/Independent	+ 3.389	+ 5.606	- 0.718	-
Co-op	-	+ 0.119	-	-

BASIS: Sample of Products with 20+ observations in 28 shops.

TABLE 5.6

Implied Pricing Policies - (after substitution of own-labels) - % Mean Deviations
Analysed by Sales Point Category Size, Location and Function

Second Prices Survey

	Small Self Service <1999 sq. ft. Sales Area	Large Self Service 2000-3999 sq. ft. Sales Area	Supermarket 4000-7999 sq. ft. Sales Area	Large Supermarket 8000 + sq. ft. Sales Area
<u>TOWN CENTRE</u>				
Multiple	+ 1.778	-	- 2.678	- 2.320
Voluntary/Independent	-	-	-	-
Co-op	-	-	- 0.346	-
Food Hall	-	-	-	- 1.173
<u>PRIMARY SUBURBAN CENTRE</u>				
Multiple	+ 1.116	+ 1.593	- 1.980	- 0.508
Voluntary/Independent	-	-	-	-
Co-op	-	+ 0.537	-	-
<u>SECONDARY SUBURBAN CENTRE</u>				
Multiple	- 3.950	- 0.235	- 2.088	-
Voluntary/Independent	+ 2.684	+ 4.692	+ 0.150	-
Co-op	-	+ 0.281	-	-

BASIS: Sample of Products with 20+ observations in 28 shops.

6: CONCLUSION:

6.1: The element of the data base contained in this Report which has not been fully exploited is that which relates to mark-ups and how these vary for both products and retailers. The reasons for not doing so were described earlier in this part of the Report at paragraphs 2.7 and 2.8 and concern the qualifications that must be attached to mark-ups derived on the basis of assumed buying prices. Moreover, had this study attempted to ascribe particular mark-up policies to retailers utilising the approach adopted for inferring retail pricing policies, the use of a common buying price would only have revealed the same relative pattern for mark-ups. Whilst analysis of mark-ups using this assumption may reveal relative differences it is considered that before fully complying with the requirements of the Methodology it would be beneficial to attempt to discuss buying prices directly with retailers to elicit their cooperation.

6.2: As a topic subsidiary to the Methodology, the different pricing policies applied by retailers to their Branded and Own-Label goods merits further research based upon a larger number of comparable Brands and Own-Labels, and to include an examination of the price differentials for each product on a shop-by-shop basis. The emergence of Own-Label marketing and particularly the evolution of Own-Label prices is especially interesting for the way in which price competition amongst Own-labels is significantly different to that for Brands. The future role of Own-Labels in retailers' merchandising strategies and any concomitant effects upon Brand/Own-Label price competition is an interesting research topic in its own right.

6.3: At the present time the European Commission in Brussels is preparing a computer program to analyse the results of Price Survey work and thus it will be possible to consolidate the practical results within the methodological framework. We look forward therefore to conducting further Price Surveys in 1977.

THE DATA-BASE TABLES

APPENDIX 1, TABLE 1

A

DEFINITIVE LIST OF BRANDED AND OWN-LABEL PRODUCTS IN SAMPLE \bar{y}^*

Canned Fish, Vegetables & Fruit

1	Berisford's Osprey Medium Red Salmon	7 $\frac{1}{2}$ oz
2	John West Pink Salmon	3 $\frac{1}{2}$ oz
2a	John West Pink Salmon	7 $\frac{1}{2}$ oz
3	Glenryck Pilchards	1 lb
4	Marie Elisabeth Sardines	4 $\frac{3}{8}$ oz
4a	Marie Elisabeth Sardines	7 oz
5	Libby's Corned Beef	7 oz
5a	Libby's Corned Beef	12 oz
6	Heinz Baked Beans	5 oz
6a	Heinz Baked Beans	7 $\frac{3}{4}$ oz
6b	Heinz Baked Beans	15 $\frac{3}{4}$ oz
6c	Heinz Baked Beans	28 oz
7	Smedleys Garden Peas	5 oz
A 7a	Smedleys Garden Peas	10 oz
7b	Smedleys Garden Peas	19 oz
8	Smedleys Sliced Green Beans	9 $\frac{1}{2}$ oz
8a	Smedleys Sliced Green Beans	18 oz
9	Hartleys Garden Peas	10 oz
9a	Hartleys Garden Peas	15 oz
10	Del Monte Bartlett Pears	15 $\frac{1}{2}$ oz
11	Del Monte Sliced Peaches	15 $\frac{1}{2}$ oz
12	Del Monte Sliced Pineapple	15 $\frac{1}{2}$ oz

Baby Foods

13	Heinz Strained Dessert	4 $\frac{1}{2}$ oz
14	Heinz Junior Meal	4 $\frac{1}{2}$ oz
15	Gerber Strained Dessert	4 $\frac{1}{2}$ oz
16	Gerber Main Meal	4 $\frac{1}{2}$ oz

Soups

17	Heinz Vegetable Soup (Tin)	10 oz
17a	Heinz Vegetable Soup (Tin)	15 $\frac{1}{4}$ oz
18	Knorr Vegetable Soup (Packet)	1 $\frac{3}{4}$ pints

A - indicates the Own-Label lines that are more or less comparable with the branded goods and are included in products sample, \bar{y}^* , which equals 154.

Packet Vegetables

19	Wondermash Instant Potato	3 servings
19a	Wondermash Instant Potato	6 servings
20	Surprise Peas	2-3 servings
20a	Surprise Peas	4 servings

Meat Extracts and Savoury Relishes

21	Bovril	2 oz
21a	Bovril	4 oz
21b	Bovril	8 oz
21c	Bovril	16 oz
22	Marmite	2 oz
22a	Marmite	4 oz
22b	Marmite	8 oz
22c	Marmite	16 oz
23	Colman's English Mustard	3½ oz
23a	Colman's English Mustard	6 oz
24	Branston Pickle	11 oz
24a	Branston Pickle	16 oz
25	H. P. Brown Sauce	9 oz
26	Heinz Tomato Ketchup	7 oz
26a	Heinz Tomato Ketchup	12 oz
26b	Heinz Tomato Ketchup	15 oz
26c	Heinz Tomato Ketchup	20 oz
27	Heinz Salad Cream	4¾ oz
27a	Heinz Salad Cream	7 oz
27b	Heinz Salad Cream	10 oz
27c	Heinz Salad Cream	20 oz
28	H. P. Epicure Pickled Onions	10 oz
28a	H. P. Epicure Pickled Onions	16 oz
28b	H. P. Epicure Pickled Onions	20 oz

Cooking Oils and Fats

A29	Spry Crisp 'n' Dry Vegetable Oil	16½ oz
29a	Spry Crisp 'n' Dry Vegetable Oil	32/35 oz
30	Mazola Corn Oil	16 oz/½ litre
30a	Mazola Corn Oil	32 oz/litre
31	Cookeen Cooking Fat	8 oz
32	Spry Cooking Fat	8 oz
33	Trex Cooking Fat	8 oz

Biscuits and Cakes

34	McVitie's Chocolate Homewheat	8 oz
34a	McVitie's Chocolate Homewheat	12 oz
35	Peak Freans Assorted Biscuits	14 oz
36	Nabisco Assorted Biscuits	16 oz
A37	Jacobs Cream Crackers	7 oz
38	Penguin Chocolate Count Line	6 pack
39	Lyon's Swiss Roll	
40	Lyon's Individual Fruit Pie	
41	McVitie's Ginger Cake	

Crispbread, Cake Mixes, Custard, Flour, Salt, Sugar & Jellies

42	Ryvita Crispbread	6½ oz
43	Ry-king Starch Reduced Crispbread	6½ oz
44	Green's Cake Mix (Sponge)	6½ oz
45	Bird's Custard Powder	6 pints
45a	Bird's Custard Powder	11 oz
45b	Bird's Custard Powder	11b 6 oz
46	McDougall's Self-Raising Flour	11b
A46a	McDougall's Self-Raising Flour	3lb
47	Homepride Self-Raising Flour	11b
47a	Homepride Self-Raising Flour	3lb
48	Saxa Salt (packet)	11b
48a	Saxa Salt (drum)	1½lbs
49	Tate & Lyle Sugar (granulated)	2lbs
50	Rowntrees Jelly	1 pint

Cereals

51	Kellogg's Cornflakes	13.2 oz (375g)
52	Scott's Porage Oats	1½lbs
53	Quaker Oats	1½lbs
54	Batchelors Savoury Rice	Std
55	Colmans Semolina	11b
A56	Own Label Plain Rice	11b
57	Uncle Bens Rice	12 oz

Preserves

A58	Robertson's Golden Shred	11b
A59	Robertson's Jam (Raspberry)	11b

Beverages

A60	Nestles Nescafe Instant Coffee (powder)	4 oz
60a	Nestles Nescafe Instant Coffee (powder)	8 oz
61	Maxwell House Instant Coffee (powder)	4 oz
61a	Maxwell House Instant Coffee (powder)	8 oz
A62	P.G. Tips Tea	4 oz
63	Typhoo Tea	4 oz
64	Tetley Tea Bags	36 bags
64a	Tetley Tea Bags	72 bags
64b	Tetley Tea Bags	144 bags
65	P.G. Tips Tea Bags	36 bags
65a	P.G. Tips Tea Bags	72 bags
65b	P.G. Tips Tea Bags	144 bags
66	Typhoo Tea Bags	72 bags
66a	Typhoo Tea Bags	144 bags
67	Cadbury's Cocoa	1lb
68	Ribena Blackcurrant	12 fl oz
68a	Ribena Blackcurrant	17½ fl oz
69	Lucozade	Large
70	Robinson's Barley Water	
A71	Coca-Cola	11.5 fl oz
A72	Top Deck Shandy	11.5 fl oz
A73	Quosh Orange Squash	

Dairy and Related

A74	Carnation Evaporated Milk	1¾ pints
75	Nestles Ideal Evaporated Milk	1¾ pints
A76	Nestles Sterilised Cream	6 oz
A77	Stork Margarine (packet)	8 oz
78	Echo Margarine (packet)	8 oz
79	Flora Soft Margarine (tub)	8 oz
80	Eden Vale Cottage Cheese	8 oz
A81	Dairylea Cheese Spread	3½ oz
82	Kraft Processed Cheddar Cheese	7 oz

Frozen Foods

83	Birds Eye Fish Fingers	6 pack
83a	Birds Eye Fish Fingers	10 pack
83b	Birds Eye Fish Fingers	16 pack
84	Findus Fish Fingers	6 pack
84a	Findus Fish Fingers	10 pack
84b	Findus Fish Fingers	14 pack
85	Birds Eye Garden Peas	½ lb
85a	Birds Eye Garden Peas	1lb
85b	Birds Eye Garden Peas	2lb
86	Findus Garden Peas	½ lb
86a	Findus Garden Peas	1lb
86b	Findus Garden Peas	2lb

APPENDIX 1, TABLE 2

SALES POINTS AND THEIR OPERATORS

Sales Point No.	Trading Name and Location	Operator
1	SAINSBURY, Whitgift Centre, Croydon	J. Sainsbury Ltd.
2	KEYMARKETS, Whitgift Centre, Croydon	Key Markets Ltd.
3	WOOLWORTHS, Whitgift Centre, Croydon	F.W. Woolworth & Co. Ltd.
4	SAFEWAY, George St., Croydon	Safeway Food Stores Ltd.
5	OAKESHOTTS, George St., Croydon	Oakeshotts Ltd.
6	TESCO, Church St, Croydon	Tesco Stores (Holdings) Ltd.
7	CATERS, Surrey St., Croydon	Cater Bros. (Provisions) Ltd.
8	SAINSBURY, Lower Addiscombe Rd.	J. Sainsbury Ltd.
9	KEYMARKETS, Royal Oak Centre, Purley	Key Markets Ltd.
*10	OAKESHOTTS, Purley	Oakeshotts Ltd.
11	INTERNATIONAL STORES, Warlingham	International Stores Ltd.
12	WAITROSE, Coulsdon	Waitrose Ltd.
13	TESCO, Coulsdon	Tesco Stores (Holdings) Ltd.
14	FINE FARE, Hamsey Green	Fine Fare Ltd.
15	BUDGEN, Selsdon	Booker McConnell Ltd.
16	BISHOPS, Mitcham	Bishops Food Stores Ltd.
17	WALLIS, S. Norwood	F. J. Wallis Ltd.
*18	LIPTONS, Coulsdon	Lipton (Retail) Ltd.
19	W. H. CULLEN, Old Coulsdon	Cullens Stores Ltd.
20	FOODRITE, Caterham	Foodrite Ltd.
21	WALTON, HASSELL & PORT, Purley	Walton, Hassell & Port Ltd.
22	LONDIS, Cherry Orchard Road	Londis Holdings Ltd.
23	SPAR, near Royal Oak Centre	Spar (Food Holdings) Ltd.
24	OLD COULSDON STORES, Old Coulsdon	Independently owned
25	INTERNATIONAL STORES, Purley	International Stores Ltd.
26	CO-OP, London Road, Croydon	South Suburban Co-op Soc.
27	CO-OP, Coulsdon	" " " "
28	CO-OP, Lower Addiscombe Road	" " " "
+29	WAVY LINE, Old Lodge Lane	Wavy Line Grocers Ltd.
+30	ALLIANCE, Brighton Road, S. Croydon	Alliance Wholesale Grocers Ltd.

* Ceased trading between First and Second Price Surveys.

+ Substituted for *

APPENDIX 1, TABLE 3

FIRST PRICES SURVEY

AVERAGE PRICES (tpj) OF PRODUCTS SAMPLE ^{*}y

PRODUCT NO.	* AVERAGE PRICE (tpj) (New Pence)	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS
		HIGH (New Pence)	LOW (New Pence)		
1	59.00	63	52	11	9
2	26.50	30	24	6	7
2a	45.05	51	41	10	9
3	25.08	32.5	23	9.5	18
4	20.08	24.5	15	9.5	18
4a	36.13	36.5	36	0.5	4
5	33.25	37	29.5	7.5	2
5a	52.21	59	49	10	7
6	7.00	7	7	Nil	1
6a	9.06	9.5	7	2.5	27
6b	14.00	15.5	13.5	2	5
6c	26.50	27	25.5	1.5	3
7	7.36	7.5	7	0.5	7
7a	11.32	12.5	10	2.5	11
A 7a	9.69	11	8.5	2.5	13
7b	18.25	18.5	18	0.5	2
8	12.79	17	11.5	5.5	14
8a	18.83	20	18	2	3
9	10.86	12	9	3	7
9a	14.79	15.5	14	1.5	7
10	20.20	22	18.5	3.5	5
11	20.50	22.5	17.5	5	8
12	22.30	24	21	3	5
13	7.20	9	6	3	20
14	8.28	9.5	6.5	3	20
15	8.14	10	7.5	2.5	11
16	9.60	14.5	7.5	7	10
17	11.35	12	9.5	2.5	27
17a	13.19	14.5	10.5	4	8
18	11.73	12.5	10	2.5	20
19	15.00	15	15	Nil	5
19a	27.75	29.5	26	3.5	18
20	12.32	14	10.5	3.5	20
20a	17.90	19	16	3	5
21	17.90	18.5	16	2.5	5
21a	33.14	35	30	5	21
21b	63.67	68	60	8	6

PRODUCT NO.	* AVERAGE PRICE (tpj) (New Pence)	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS
		HIGH (New Pence)	LOW (New Pence)		
21c	127.80	134	120	14	5
22	14.5	14.5	14.5	Nil	2
22a	23.83	27	20	7	20
22b	47.42	49	43	6	6
22c	94.13	95.5	91	4.5	4
23	19.31	20	18	2	24
23a	31.75	32	31	1	8
24	22.54	24.5	18.5	6	25
24a	27.71	32	25	7	7
25	17.27	19.5	13.5	6	22
26	17.00	17	17	Nil	5
26a	24.43	25	23.5	1.5	21
26b	28.50	30	25	5	6
26c	35.40	36	34	2	5
27	15.00	15	15	Nil	6
27a	20.47	21	18	3	17
27b	28.33	29	27	2	12
27c	52.00	53	49	4	8
28	20.04	23	17.5	5.5	12
28a	28.00	29	27	2	2
28b	30.00	30	30	Nil	1
29	36.03	38	34	4	15
A 29	29.21	31	18	3	14
29a	70.33	79	65	14	6
30	35.85	38	34	4	20
30a	65.71	68	64	4	7
31	12.15	13	11.5	1.5	24
32	13.53	14.5	13	1.5	17
33	14.83	15.5	14	1.5	15
34	21.33	24	18	6	23
34a	30.97	32	26	6	15
35	34.11	39	29	10	14
36	31.95	34	29	5	11
37	12.08	14	9.5	4.5	24
A 37	10.79	12	10	2	12
38	20.63	22	17	5	23
39	16.27	16.5	14.5	2	11
40	12.97	13	12.5	0.5	19
41	20.75	21	18	3	16
42	9.59	10	7.5	2.5	22
43	15.87	16.5	14	2.5	23
44	11.25	12	9.5	2.5	18
45	11.50	12	11	1	17

PRODUCT NO.	*	AVERAGE PRICE (tpj) (New Pence)	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS
			HIGH (New Pence)	LOW (New Pence)		
	45a	18.86	19.5	18	1.5	14
	45b	37.75	37	33	4	8
	46	9.25	9.5	8.5	1	6
	46a	21.52	23	19.5	3.5	23
	47	9.42	9.5	9	0.5	6
A	47a	21.38	23	17.5	5.5	21
	48	7.33	7.5	6	1.5	18
	48a	11.15	11.5	10	1.5	10
	49	22.86	25	21	4	25
	50	12.00	13	10	3	27
	51	20.70	22	17	5	20
	52	26.02	28	21	7	24
	53	25.85	28.5	22	6.5	17
	54	20.18	21	19	2	20
	55	26.12	26.5	24.5	2	12
A	56	16.18	23.5	13.5	10	16
	57	24.70	25	23	2	7
	58	22.65	28	19	9	26
A	58	20.17	22	18	4	18
	59	26.40	28	22	6	21
A	59	22.60	25	14.5	9.5	20
	60	40.90	54	37	17	19
A	60	37.82	50	33	17	20
	60a	78.67	85	73	12	6
	61	41.50	54	37.5	16.5	21
	61a	82.42	95.5	78	17.5	6
	62	10.20	12	8.5	3.5	26
A	62	8.97	10	8	2	18
	63	10.72	12	9	3	23
	64	16.40	17.5	15	2.5	5
	64a	30.94	33	26.5	6.5	16
	64b	60.62	64	52	12	12
	65	16.50	16.5	16.5	Nil	4
	65a	32.00	34	29	5	15
	65b	62.13	67	57	10	8
	66	30.90	34	27	7	10
	66a	62.13	67	57	10	8
	67	53.00	53	53	Nil	6
	68	34.62	46	30	16	20
	68a	45.95	47	41	6	11
	69	29.31	33	26	7	21
	70	29.11	31	27	4	23
	71	11.37	12.5	10	2.5	23
A	71	9.40	10.5	9	1.5	11

PRODUCT NO.	*	AVERAGE PRICE (tpj) (New Pence)	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS	
			HIGH (New Pence)	LOW (New Pence)			
		72	11.65	12.5	11	1.5	17
A		72	10.50	11.5	9	2.5	15
		73	26.31	28.5	24.5	4	13
A		73	21.75	25.5	16.5	9	16
		74	16.04	17.5	13	4.5	24
A		74	14.80	16	12.5	3.5	22
		75	16.22	17	15	2	9
		76	13.98	18	11.5	6.5	20
A		76	12.09	13	10	3	16
		77	11.50	12.5	9.5	3	28
A		77	10.31	12.5	9	3.5	16
		78	10.96	11.5	10	1.5	23
		79	18.61	19	17.5	1.5	22
		80	22.31	24	22	2	13
		81	16.14	18	14.5	3.5	28
A		81	10.17	13	9	4	12
		82	35.21	39	29.5	9.5	21
		83	23.36	25.5	23	2.5	7
		83a	35.11	38	29	9	18
		83b	55.00	55	55	Nil	2
		84	23.00	23	23	Nil	5
		84a	35.67	36	33	3	9
		84b	49.40	50	47	3	5
		85	15.67	16.5	15.5	1	6
		85a	24.32	27	22	5	14
		85b	46.56	49	44.5	4.5	8
		86	15.90	16.5	13.5	3	5
		86a	25.50	27	22	5	5
		86b	42.93	49	35	14	7

* PRODUCT NO. - relates to products listed in Appendix 1, Table 1, and Suffix 'A' identifies own-label items. Subscripts identify different size category of same product.

APPENDIX 1, TABLE 4

SECOND PRICES SURVEY

AVERAGE PRICES ($t + 1p_j$) OF PRODUCTS SAMPLE \bar{y} *

PRODUCT NO.	*	AVERAGE PRICE	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS
		$t + 1p_j$ (New Pence)	HIGH (New Pence)	LOW (New Pence)		
1		61.09	66	55	11	11
2		30.21	32.5	27.5	5	7
2a		51	57.0	47	10	13
3		27.04	29	23.5	5.5	13
4		18.44	23	15.5	7.5	16
4a		35.08	36.5	33	2.5	6
5		39	39	39	-	1
5a		56.33	65	49	16	12
6		7.32	7.5	7	0.5	17
6a		9.57	10	8.5	1.5	27
6b		14.54	16.5	12	4.5	27
6c		27.45	28.5	25	3.5	10
7		7.55	8.5	7	1.5	11
7a		11.34	13	8.5	4.5	16
A 7a		9.88	11	8.5	2.5	20
7b		17.05	18.5	14	3.5	10
8		12.75	13.5	12	1.5	4
8a		19.60	21	19	2	5
9		11.17	11.5	11	0.5	3
9a		14.5	15	14	1	4
10		21.43	22.5	20	2.5	7
11		21.10	23.5	19.5	4	10
12		21.44	27.5	15	12.5	8
13		8.06	9	7	2	18
14		8.64	9.5	7.5	2	18
15		8.96	11	7	4	14
16		8.56	9.5	7	2.5	8
17		11.72	12.5	11	1.5	27
17a		14.32	15	12.5	2.5	28
18		12.54	15	9.5	5.5	24
19		14.64	15	13	2	11
19a		27.21	29.5	24	5.5	17
20		13.32	14	11.5	2.5	17
20a		19.43	21.5	18.5	3	20
21		18.43	18.5	17.5	1	20
21a		34.21	35	31	4	26
21b		66.64	68	62.5	5.5	25

PRODUCT NO.	* † + 1p (New Pence)	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS
		HIGH (New Pence)	LOW (New Pence)		
21c	126.23	129	122	7	13
22	15.07	16.5	14	2.5	23
22a	27.19	29	25	4	26
22b	50.78	55	47	8	25
22c	94.55	99	87	12	19
23	19.30	20	17	3	20
23a	30.95	32	26.5	5.5	22
24	26.30	24.5	19.5	5	25
24a	31.65	34	27	7	17
25	18.33	20	17.5	2.5	21
26	16.78	18	16	2	20
26a	24.4	25	22	3	21
26b	28.64	30	25	5	18
26c	35.41	36	34	2	16
27	14.77	15	14	1	11
27a	20.34	21	19.5	1.5	16
27b	26.86	29	23	6	17
27c	51.00	57	48	9	16
28	21.68	25	19	6	17
28a	28.47	33	24	9	17
28b	-	-	-	-	-
29	34.44	39	32	7	16
A 29	27.31	32	24	8	16
29a	65.44	83	59	24	18
30	35.71	38	33	5	19
30a	66.05	72	55	17	20
31	12.85	14.5	11	3.5	26
32	14.14	15.5	13.5	2	18
33	14.33	15.5	12.5	3	20
34	22.41	23.8	18.1	5.7	23
34a	28.93	32	24	8	23
35	33.10	38	25	13	15
36	29.44	35	24.5	10.5	9
37	14.00	16	9.5	6.5	25
A 37	11.03	12.5	10	2.5	17
38	20.58	21	16	5	24
39	16.18	16.5	15	1.5	14
40	13.22	13.5	11	2.5	18
41	20.29	21	17.5	3.5	21
42	10.25	11.5	8.5	3	24
43	17.14	18.5	14	4.5	21
44	11.45	12	9.5	2.5	20
45	12.26	13	11.5	1.5	17
45a	20.50	21.5	17	4.5	26

PRODUCT NO. *	AVERAGE PRICE	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS	
	† + 1pj (New Pence)	HIGH (New Pence)	LOW (New Pence)			
	45b	38.74	40	34	6	19
	46	9.32	9.5	9	0.5	17
	46a	21.20	24	18	6	6
A	46a	17.18	18.5	15.5	3	19
	47	9.43	9.5	9.0	0.5	14
	47a	21.35	24	17	7	24
	48	9.04	13	8	5	14
	48a	12.77	16	11.5	4.5	13
	49	23.26	24.5	22	2.5	23
	50	12.67	14	12	2	21
	51	22.21	25.5	21	4.5	21
	52	30.52	33	25	8	22
	53	30.00	32.5	26.5	6	19
	54	21.76	22.5	20	2.5	23
	55	26.64	30	25.5	4.5	11
A	56	17.43	21	14.5	6.5	14
	57	18.82	25	13.5	11.5	17
	58	23.78	28.5	19.5	9	27
A	58	20.63	25	17.5	7.5	19
	59	25.98	28	22	6	26
A	59	23.64	26	20	6	22
	60	54.44	67	51	16	17
A	60	48.40	54	42	12	20
	60a	108.31	125	99	26	13
	61	54.31	65	49	16	21
	61a	107.10	125	98	27	20
	62	10.35	12	8	4	27
A	62	9.03	10	8	2	16
	63	11.08	12.5	9	3.5	27
	64	16.70	17	16	1	15
	64a	32.13	37	29	8	20
	64b	61.84	65	55	10	16
	65	16.73	18.5	14.5	4	20
	65a	30.86	34	27	7	21
	65b	61.36	67	53	14	22
	66	30.95	33.5	26	7.5	20
	66a	60.89	65	56	9	9
	67	57.80	59	53	6	5
	68	34.16	38	31	7	16
	68a	45.76	50	43	7	21
	69	31.41	33.5	22	11.5	23
	70	32.00	33.5	31	2.5	5
	71	11.66	13	9.5	3.5	16
A	71	9.70	10.5	8.5	2	10

PRODUCT NO.	*	AVERAGE PRICE	RANGE		VARIATION (New Pence)	NO. OF OBSERVATIONS
		t + 1p _j (New Pence)	HIGH (New Pence)	LOW (New Pence)		
	72	11.58	13	10.5	2.5	6
A	72	10.69	11.5	9.5	2	8
	73	25.5	26.5	24.5	2	2
A	73	22.29	24	21	3	7
	74	16.40	18	14.5	3.5	26
A	74	15.27	16.5	14	2.5	22
	75	16.00	22	12	10	11
	76	14.48	16	12.5	3.5	25
A	76	13.21	14.5	11	3.5	17
	77	11.78	13.5	10.5	3	27
A	77	10.27	11.5	9.5	2	15
	78	10.98	12	10	2	25
	79	18.98	19.5	18.5	1	20
	80	23.46	26	21	5	13
	81	15.83	18.5	13.5	5	27
A	81	11.04	12	10	2	12
	82	35.89	39.5	29.5	10	18
	83	24.28	25	20	5	18
	83a	39.97	40	33	7	19
	83b	59.77	61	56	5	13
	84	25	25	25	0	11
	84a	39.13	40	35	5	15
	84b	55.00	55	55	0	7
	85	15.45	15.5	14.5	1	19
	85a	25.59	29	21	8	16
	85b	42.20	47	39	8	5
	86	16.5	16.5	16.5	0	9
	86a	24.77	29	19.5	9.5	11
	86b	46.17	48	37	11	7

* PRODUCT NO. - relates to products listed in Appendix 1, Table 1, and Suffix 'A' identifies own-label items. Subscripts identify different size category of same product.

APPENDIX 1, TABLE 5

FIRST PRICES SURVEY

DERIVED AVERAGE MARK-UPS

Product No.	Average Retail Price * (pence)	Assumed Buying + Price (pence)	Derived Average Mark Up (pence)	Mark Up (%)
1	59.00			
2	26.50			
2a	45.05			
3	25.08	19.2	5.88	30.6
4	20.08			
4a	36.13			
5	33.25			
5a	52.21			
6	7.00	5.8	1.20	20.7
6a	9.06	7.9	1.16	14.7
6b	14.00	12.9	1.10	8.5
6c	26.50	22.5	4.00	17.8
7	7.36	6.2	1.16	18.7
7a	11.32	9.5	1.82	19.1
A 7a	9.69			
7b	18.25			
8	12.79	10.3	2.49	24.2
8a	18.83			
9	10.86	9.2	1.66	18.0
9a	14.79			
10	20.20			
11	20.50			
12	22.30			
13	7.20	6.5	0.70	10.8
14	8.28	7.7	0.58	7.5
15	8.14	8.25	-0.11	-1.3
16	9.60	8.25	1.35	16.4
17	11.35	10.00	1.35	13.5
17a	13.19	12.5	0.69	5.5
18	11.73	10.3	1.43	13.9
19	15.00	12.4	2.60	20.9
19a	27.75	23.6	4.15	17.6
20	12.32	11.0	1.33	12.1
20a	17.90	15.6	2.30	14.7
21	17.90	15.5	2.40	15.5
21a	33.14	29.4	3.74	12.7
21b	63.67	57.0	6.67	11.7
21c	127.80	108.2	19.60	18.1
22	14.5	12.1	2.40	19.8

Product No.	Average Retail Price * (pence)	Assumed Buying Price + (pence)	Derived Average Mark Up (pence)	Mark Up (%)
22a	23.83	21.7	3.13	14.4
22b	47.42	41.1	6.32	15.4
22c	94.13	79.7	14.43	18.1
23	19.31	16.0	3.23	20.2
23a	31.75	25.7	6.05	23.5
24	22.54	20.0	2.54	12.7
24a	27.71	27.9	-0.19	-0.7
25	17.27	14.2	3.06	21.5
26	17.00	14.2	2.80	19.7
26a	24.43	20.8	3.63	17.4
26b	28.50	25.0	3.50	14.0
26c	35.40			
27	15.00	12.5	2.50	20.0
27a	20.47	17.5	3.00	17.1
27b	28.33	24.2	4.13	17.1
27c	52.00	44.2	7.80	17.6
28	20.04	16.8	3.24	19.3
28a	28.00	22.8	5.20	22.8
28b	30.00			
29	36.03	32.3	3.73	11.5
A 29	29.21			
29a	70.33	61.7	8.63	14.0
30	35.85	31.5	4.35	13.8
30a	65.71	59.3	6.41	10.8
31	12.15	10.5	1.65	15.7
32	13.53	11.7	1.83	15.6
33	14.83	12.6	2.30	18.2
34	21.33	16.4	5.80	35.4
34a	30.97	23.8	7.17	30.1
35	34.11	27.0	7.11	26.3
36	31.95	27.5	4.45	16.2
A 37	12.08			
37	10.79	11.3	0.80	7.1
38	20.63	15.0	4.80	32.0
39	16.27			
40	12.97			
41	20.75			
42	9.59	8.2	1.40	17.1
43	15.87	13.4	2.47	18.4
44	11.25	9.7	1.55	16.0
45	11.50	9.0	2.50	27.8
45a	18.86	15.5	3.36	21.7
45b	37.75	30.1	5.65	18.8
46	9.25	7.8	1.45	18.6
46a	21.52	20.9	0.62	3.0
A 46a	17.65			

Product No.	Average Retail Price * (pence)	Assumed Buying Price + (pence)	Derived Average Mark Up (pence)	Mark Up (%)
47	9.42	9.3	0.12	1.3
47a	21.38	23.5	-2.12	-9.0
48	7.33	6.2	1.13	18.2
48a	11.15	9.3	1.85	19.9
49	22.86			
50	12.00	10.8	1.20	11.1
51	20.70			
52	26.02	24.0	1.90	7.9
53	25.85			
54	20.18	17.3	2.88	16.6
55	26.12	22.1	4.03	18.2
A 56	16.18			
57	24.70	21.4	3.31	15.5
58	22.65	21.9	0.75	3.4
A 58	20.17			
59	26.40	23.7	2.70	11.4
A 59	22.60			
60	40.90	38.8	2.15	5.5
A 60	37.82			
60a	78.67	83.3	-4.63	-5.5
61	41.50	42.4	-0.90	-2.1
61a	82.42	82.3	0.12	0.14
62	10.20	10.3	-0.11	-1.06
A 62	8.97			
63	10.72	10.5	0.17	1.6
64	16.40	14.1	2.30	16.3
64a	30.94	27.8	3.14	11.3
64b	60.62	55.2	5.43	9.8
65	16.50	14.5	2.00	13.8
65a	32.00	26.2	5.80	22.1
65b	62.13	56.6	5.53	9.8
66	30.90	28.8	2.10	7.3
66a	62.13	57.0	5.13	9.0
67	53.00	46.5	6.50	14.0
68	34.62	26.1	8.48	32.5
68a	45.95	34.6	11.35	32.8
69	29.31	22.3	7.01	31.4
70	29.11	21.4	7.69	35.9
71	11.37	8.5	2.87	33.8
A 71	9.40	-		
72	11.65	8.4	3.37	40.1
A 72	10.50			
73	26.31	20.6	5.71	27.7
A 73	21.75			
74	16.04	15.0	1.04	6.9
A 74	14.80			

Product No.	Average Retail Price * (pence)	Assumed Buying Price + (pence)	Derived Average Mark Up (pence)	Mark Up (%)
75	16.22	14.0	2.22	
76	13.98	12.7	1.29	10.1
A 76	12.09			
77	11.50	11.0	0.50	4.5
A 77	10.31			
78	10.96	9.9	1.06	10.7
79	18.61	15.8	4.05	25.6
80	22.31	17.0	5.31	31.2
81	16.14	12.8	3.27	25.5
A 81	10.17			
82	35.21	26.6	8.64	32.5
83	23.36	19.1	4.26	22.3
83a	35.11	29.8	5.20	17.4
83b	55.00	45.8	9.20	20.1
84	23.00	19.0	4.00	21.0
84a	35.67	29.8	5.87	19.7
84b	49.40	39.0	10.40	26.7
85	15.67	12.7	3.00	23.6
85a	24.32	21.7	2.62	12.1
85b	46.56	41.5	5.06	12.2
86	15.90	13.5	3.00	22.2
86a	25.50	21.7	3.80	17.5
86b	42.93	40.0	2.93	7.3

* From Appendix 1, Table 3. Column 1.

+ Extracted from "The Grocer" 3rd January 1976. Where no buying price has been assumed, none was available in this publication.

APPENDIX 1, TABLE 6
SECOND PRICES SURVEY
DERIVED AVERAGE MARK UPS

Product No.	Average Retail Price * (pence)	Assumed Buying Price + (pence)	Derived Average Mark Up (pence)	Mark Up (%)
1	61.09			
2	30.21			
2a	51.00			
3	27.04	19.8	7.28	36.8
4	18.44	14.5	4.00	27.6
4a	35.08	24.8	10.28	41.4
5	39.00			
5a	56.33			
6	7.32	6.3	1.02	16.2
6a	9.57	8.3	1.27	15.3
6b	14.54	13.8	0.74	5.4
6c	27.45	23.8	3.65	15.3
7	7.55	6.3	1.25	19.8
7a	11.34	9.9	1.44	14.5
A 7a	9.88			
7b	17.05			
8	12.75	10.6	2.15	20.2
8a	19.60			
9	11.17	9.2	1.97	21.4
9a	14.5			
10	21.43			
11	21.10			
12	21.44			
13	8.06	7.3	0.76	10.4
14	8.64	8.1	0.54	6.7
15	8.96	9.1	-0.14	-1.5
16	8.56	9.1	-0.54	-5.9
17	11.72	10.0	1.72	17.2
17a	14.32	12.5	1.82	14.6
18	12.54	11.0	1.54	14.0
19	14.64	12.4	2.18	17.6
19a	27.21	23.6	3.60	15.2
20	13.32	11.4	1.92	16.8
20a	19.43	16.5	2.93	17.7
21	18.43	15.5	2.93	18.9
21a	34.21	29.4	4.81	16.4
21b	66.64	57.0	9.64	16.9
21c	126.23	108.2	18.03	16.7
22	15.07	12.1	2.97	24.5

Product No.	Average Retail Price * (pence)	Assumed Buying Price † (pence)	Derived Average Mark Up (pence)	Mark Up (%)
22a	27.19	21.7	5.49	25.3
22b	50.78	41.1	9.68	23.5
22c	94.55	79.7	14.85	18.6
23	19.30	16.0	3.30	20.6
23a	30.95	25.7	5.25	20.4
24	22.52	20.0	2.22	11.1
24a	31.65	27.9	3.75	13.4
25	18.33	15.9	2.48	15.6
26	16.78	14.2	2.58	18.2
26a	24.4	20.8	3.60	17.3
26b	28.64	25.0	3.64	14.6
26c	35.41			
27	14.77	12.5	2.27	18.2
27a	20.34	17.5	2.84	16.2
27b	26.86	24.2	2.48	10.2
27c	51.00	44.2	6.80	15.4
28	21.68	18.1	3.58	19.8
28a	28.47	24.5	4.26	17.4
28b	-			
29	34.44	32.3	2.14	6.6
A 29	27.31			
29a	65.44	61.7	3.74	6.1
30	35.71	31.5	4.21	13.4
30a	66.05	59.3	6.75	11.4
31	12.85	11.8	1.05	8.9
32	14.14	13.0	1.14	8.8
33	14.33			
34	22.41			
34a				
35	33.10	28.9	4.20	14.5
36	29.44			
37	14.00	12.7	1.50	11.8
A 37	11.03			
38	20.58	15.7	4.88	31.1
39	16.18			
40	13.22			
41	20.29	16.8	3.58	21.3
42	10.25	8.2	2.05	25.0
43	17.14	14.9	2.24	15.0
44	11.45	9.7	1.75	18.0
45	12.26	9.4	2.86	30.4
45a	20.50	16.4	4.10	25.0
45b	38.74	30.9	7.84	25.4
46	9.32	7.8	1.52	19.4
46a	21.20	20.9	0.30	1.4
A 46a	17.18			

Product No.	Average Retail Price * (pence)	Assumed Buying Price + (pence)	Derived Average Mark Up (pence)	Mark Up (%)
47	9.43	9.3	0.14	1.5
47a	21.35	23.5	-3.96	-16.8
48	9.04	7.4	1.64	22.2
48a	12.77	10.5	2.27	21.6
49	23.26			
50	12.67	11.2	1.47	13.1
51	22.21			
52	30.52	28.1	2.42	8.6
53	30.00			
54	21.76	18.6	3.16	17.0
55	26.64	22.1	4.54	20.5
A 56	17.43			
57	18.82	18.2	0.62	3.4
58	23.78	21.9	1.88	8.6
A 58	20.63			
59	25.98	23.7	2.28	9.6
A 59	23.64			
60	54.44	61.3	-6.83	-11.1
A 60	48.40			
60a	108.31	119.9	-11.59	-9.7
61	54.31	51.7	2.61	5.0
61a	107.10	100.9	6.20	6.1
62	10.35	10.3	0.05	0.5
A 62	9.03			
63	11.08	10.5	-0.24	-2.3
64	16.70	14.1	2.60	18.4
64a	32.13	27.8	4.33	15.6
64b	61.84	55.8	6.64	11.9
65	16.73	14.5	2.23	15.4
65a	30.86	26.2	4.66	17.8
65b	61.36	56.6	4.78	8.4
66	30.95	28.8	2.15	7.5
66a	60.89			
67	57.80	51.9	5.90	11.4
68	34.16	26.1	8.06	30.9
68a	45.76	34.6	11.16	32.2
69	31.41	23.8	7.61	31.9
70	32.00	23.9	8.30	34.7
71	11.66	8.5	3.16	37.2
A 71	9.70			
72	11.58	8.6	2.98	34.6
A 72	10.69			
73	25.5	20.6	4.90	23.8
A 73	22.29			
74	16.40	15.0	1.40	9.3
A 74	15.27			

Product No.	Average Retail Price * (pence)	Assumed Buying Price + (pence)	Derived Average Mark Up (pence)	Mark Up (%)
75	16.00			
76	14.48	12.7	1.78	14.0
A 76	13.21			
77	11.78	10.9	0.88	8.1
A 77	10.27			
78	10.98	9.9	1.08	10.9
79	18.98	16.3	2.70	16.6
80	23.46	18.0	5.46	30.3
81	15.83	12.8	3.03	23.7
A 81	11.04			
82	35.89	26.6	9.29	34.9
83	24.28	20.8	3.48	16.7
83a	39.97	33.3	4.92	14.8
83b	59.77	50.8	8.97	17.6
84	25.00	20.7	4.30	20.8
84a	39.13	33.2	5.93	17.9
84b	55.00	45.7	9.30	20.3
85	15.45	12.7	2.75	21.6
85a	25.59	21.7	3.89	17.9
85b	42.20	41.5	0.70	1.7
86	16.50	13.5	3.00	22.2
86a	24.77	21.7	3.06	14.1
86b	46.17			

* From Appendix 1, Table 4. Column 1.

+ Extracted from "The Grocer" 3rd July 1976. Where no buying price has been assumed, none was available in this publication.

APPENDIX 1, TABLE 7

RANK ORDER OF PERCENTAGE MARK UP

FIRST PRICES SURVEY

Rank	Product No.	Product Name	% Mark Up
1	70	Robinsons Barley Water	35.9
2	34	McVitie's Chocolate Homewheat 8 oz	35.4
3	71	Coca-Cola 11.5 fl oz	33.8
4	(82)	Kraft Processed Cheddar Cheese 7 oz	(32.5
	(68)	Ribena Blackcurrant 12 fl oz	(32.5
6	38	Penguin Chocolate Count Line	32.0
7	69	Lucozade Large	31.4
8	79	Flora Soft Margarine 8 oz	25.6
9	81	Dairylea Cheese Spread	25.5
10	25	H.P. Brown Sauce 9 oz	21.5
11	23	Colman's English Mustard 3½ oz	20.2
12	43	Ry-king Starch Reduced Crispbread 6½ oz	18.4
13	26a	Heinz Tomato Ketchup 12 oz	17.4
14	42	Ryvita Crispbread 6½ oz	17.1
15	54	Batchelors Savoury Rice Std	16.6
16	31	Cookeen Cooking Fat 8 oz	15.7
17	6a	Heinz Baked Beans 7¾ oz	14.7
18	22a	Marmite 4 oz	14.4
19	18	Knorr Vegetable Soup Packet 1¾ pints	13.9
20	30	Mazola Corn Oil 16 oz/½ litre	13.8
21	17	Heinz Vegetable Soup Tin 10 oz	13.5
22	(21a)	Bovril 4 oz	(12.7
	(24	Branston Pickle 11 oz	(12.7
24	20	Surprise Peas 2-3 servings	12.1
25	59	Robertsons Jam (Raspberry) 1lb	11.4
26	50	Rowntrees Jelly 1 pint	11.1
27	13	Heinz Strained Dessert 4½ oz	10.8
28	78	Echo Margarine 8 oz	10.7
29	76	Nestles Sterilised Cream	10.1
30	52	Scotts Porage Oats	7.9
31	14	Heinz Junior Meal 4½ oz	7.5
32	37	Jacobs Cream Crackers 7 oz	7.1
33	74	Carnation Evaporated Milk 1¾ pints	6.9
34	77	Stork Margarine 8 oz	4.5
35	58	Robertsons Golden Shred 1lb	3.4
36	46a	McDougalls S.R. Flour 3lb	3.0
37	63	Typhoo Tea 4 oz	1.6
38	62	PG Tips Tea 4 oz	-1.1
39	61	Maxwell House Instant Coffee 4 oz	-2.1
40	51	Kelloggs Cornflakes 375g	-8.0
41	47a	Homepride S.R. Flour 3lbs	-9.0
42	49	Tate & Lyle Sugar (gran) 2lb	...

APPENDIX 1, TABLE 8

RANK ORDER OF PERCENTAGE MARK UPS

SECOND PRICES SURVEY

Rank	Product No.	Product Name	% Mark Up
1	68a	Ribena 17½ fl oz	32.2
2	69	Lucozade Large	31.9
3	38	Penguin Chocolate Count Line 6 pack	31.1
4	22a	Marmite 4 oz	25.3
5	(42)	Ryvita Crispbread 6½ oz	(25.0)
	(45a)	Birds Custard Powder 11 oz	(25.0)
7	22	Marmite 2 oz	24.5
8	81	Dairylea Cheese Spread 3½ oz	23.7
9	22b	Marmite 8 oz	23.5
10	41	McVities Ginger Cake	21.3
11	23	Colmans English Mustard 3½ oz	20.6
12	23a	Colmans English Mustard 6 oz	20.4
13	21	Bovril 2 oz	18.9
14	26	Heinz Tomato Ketchup 7 oz	18.2
15	44	Greens Cake Mix 6½ oz	18.0
16	65a	PG Tips Tea Bags 72 bags	17.8
17	20a	Surprise Peas 4 servings	17.7
18	26a	Heinz Tomato Ketchup 12 oz	17.3
19	17	Heinz Vegetable Soup Tin 10 oz	17.2
20	54	Batchelors Savoury Rice	17.0
21	21b	Bovril 8 oz	16.9
22	79	Flora Soft Margarine 8 oz	16.6
23	21a	Bovril 4 oz	16.4
24	(25)	H.P. Sauce 9 oz	(15.6)
	(64a)	Tetley Tea Bags 72 bags	(15.6)
26	65	PG Tips Tea Bags 36 bags	15.4
27	6a	Heinz Baked Beans 7¾ oz	15.3
28	43	Ry-king Starch Reduced Crispbread 6½ oz	15.0
29	17a	Heinz Vegetable Soup Tin 15¼ oz	14.6
30	(18)	Knorr Vegetable Soup Packet 1¾ pints	(14.0)
	(76)	Nestles Sterilised Cream 6 oz	(14.0)
32	50	Rowntrees Jelly 1 pint	13.1
33	37	Jacobs Cream Crackers	11.8
34	30a	Mazola Corn Oil 1 litre	11.4
35	24	Branston Pickle 11 oz	11.1
36	78	Echo Margarine 8 oz	10.9
37	59	Robertsons Jam (Raspberry) 11b	9.6
38	74	Carnation Evaporated Milk 1¾ pints	9.3
39	31	Cookeen Cooking Fat 8 oz	8.9
40	52	Scotts Porage Oats 1½lb	8.6
41	58	Robertsons Golden Shred 11b	8.6
42	65b	PG Tips Tea Bags 144 bags	8.4

Rank	Product No.	Product Name	% Mark Up
43	77	Stork Margarine 8 oz	8.1
44	66	Typhoo Tea Bags 72 bags	7.5
45	61a	Maxwell House Instant Coffee 8 oz	6.1
46	6b	Heinz Baked Beans 15 $\frac{3}{4}$ oz	5.4
47	61	Maxwell House Instant Coffee 4 oz	5.0
48	62	PG Tips Tea 4 oz	0.5
49	63	Typhoo Tea 4 oz	-2.3
50	47a	Homepride S.R. Flour 3 lb	-16.8
51	33	Trex Cooking Fat 8 oz	...
52	34	McVities Chocolate Homewheat 8 oz	...
53	34a	McVities Chocolate Homewheat 12 oz	...
54	46a	McDougalls S.R. Flour 3lb	...
55	49	Tate & Lyle Sugar (gran)	...
56	51	Kelloggs Cornflakes 375g	...

THE QUESTIONNAIRE SENT TO RETAILERS

APPENDIX 2, TABLE 1

The following retail distribution companies completed the questionnaire and are thanked for their cooperation.

Tesco Stores (Holdings) Ltd.	for one Sales Point
Booker McConnell Ltd.	for one Sales Point
J. Sainsbury Ltd.	for two Sales Points
Safeway Food Stores Ltd.	for one Sales Point
South Suburban Co-operative Society	for three Sales Points
F.W. Woolworth & Co. Ltd.	for one Sales Point
Bishops Food Stores Ltd.	for one Sales Point
Fine Fare Ltd.	for one Sales Point
Oakeshotts Ltd.	for one Sales Point
* International Stores Ltd.	for Group
*Key Markets Ltd.	for two Sales Points

* Unfortunately, the replies from these two companies were received too late to be incorporated in the analysis presented in Section 4. Only one company expressly refused to cooperate.

Please indicate (✓) which of the following Branded (and/or Own Label) lines you stock at present

(1)

JOHN WEST Pink Salmon		GLENRYCK Pilchards		HARTLEYS Garden Peas		HEINZ Tomato Ketchup		HEINZ Salad Cream	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
3½ oz		8 oz		5 oz		7 oz		4¾ oz	
7½ oz		16 oz		10 oz (A1)		12 oz		7 oz	
				15 oz (UT)		15 oz		10 oz	
				19 oz (A2)		20 oz		20 oz	
OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
Any Comments?		Any Comments?		Any Comments?		Any Comments?		Any Comments?	

(Facsimile of the Questionnaire sent Retailers)

Please indicate () which of the following Branded (and/or Own Label) lines you stock at present.

(2)

HEINZ Tinned Soup		HEINZ Baked Beans		BOVRIL		MARMITE		STORK Margarine	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
10 oz		5 oz		2 oz		2 oz		8 oz packet	
15 oz		7 $\frac{3}{4}$ oz		4 oz		4 oz			
		15 $\frac{3}{4}$ oz		8 oz		8 oz			
		20 oz		16 oz		16 oz			
OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
Any Comments?		Any Comments?		Any Comments?		Any Comments?		Any Comments?	

Please indicate (✓) which of the following Branded (and/or Own Label) lines you stock at present.

COOKEEN Cooking Fat		SAXA Salt		McDOUGALL'S Self Raising Flour		BIRD'S Custard Powder		McVITIE Chocolate Homewheat	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
8 oz pkt		11b pkt		11b		6 pint pkt		8 oz	
		1½lb drum		3lb		11 oz tin (Family)		12 oz	
						20 oz tin (Economy)			
OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
Any Comments?		Any Comments?		Any Comments?		Any Comments?		Any Comments?	

Please indicate () which of the following Branded (and/or Own Label) lines you stock at present.

(4)

JACOBS Cream Crackers		KELLOGG'S Corn Flakes		SCOTT'S Porage Oats		ROBERTSON'S Golden Shred		CARNATION Evaporated Milk	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
7½ oz		8 oz		¾ lb		1lb		¾ pt	
10½ oz		375 g		1½ lb				1¾ pt	
		500 g							
OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
Any Comments?		Any Comments?		Any Comments?		Any Comments?		Any Comments?	

Please indicate () which of the following Branded (and/or Own Label) lines you stock at present.

(5)

NESTLES Sterilised Cream		NESTLES Nescafe Instant Coffee		TETLEY Tea Bags		CADBURY'S Bournville Cocoa		RIBENA Blackcurrant Drink	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
4 oz		2 oz		36 bags		8 oz		12 fl. oz	
6 oz		4 oz		72 bags		1lb		17½ fl.oz	
		8 oz		144 bags					
		12 oz							
OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)	
RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK	RANGE	TICK
Any Comments?		Any Comments?		Any Comments?		Any Comments?		Any Comments?	

Please indicate (✓) which of the following Branded (and/or Own Label) lines you stock at present.

(6)

LUCOZADE		BIRDS EYE Frozen Garden Peas		BIRDS EYE Frozen Fish Fingers	
RANGE	TICK	RANGE	TICK	RANGE	TICK
Small		4 oz		6 pack	
Large		8 oz		10 pack	
		1lb		16 pack	
		2lb			
OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)		OWN LABEL EQUIVALENT (if any)	
RANGE	TICK	RANGE	TICK	RANGE	TICK
Any Comments?		Any Comments?		Any Comments?	

	Please complete this table for your branch at:
--	--

THANK YOU FOR YOUR CO-OPERATION

PLEASE RETURN TO:

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49 Lower Addiscombe Road,
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Tel: 01-681 2249

SUPPLEMENTARY TABLES ON IMPLIED PRICING POLICIES

APPENDIX 3, TABLE 1

BRANDED PRODUCTS WITH 20 + OBSERVATIONS

AVERAGE RETAIL PRICES, NUMBER OF OBSERVATIONS (N), STANDARD DEVIATIONS AND STANDARD ERRORS

FIRST PRICES SURVEY

Product No.	Product Name	Average Retail Price (pence)	N	Standard Deviation	Standard Error
6a	Heinz Baked Beans 7 $\frac{3}{4}$ oz	9.06	27	0.533	0.103
13	Heinz Strained Dessert 4 $\frac{1}{2}$ oz	7.20	20	0.224	0.05
14	Heinz Junior Main Meal 4 $\frac{1}{2}$ oz	8.28	20	0.766	0.171
17	Heinz Vegetable Soup. Tin 10 oz	11.35	27	0.677	0.130
18	Knorr Vegetable Soup Pkt 1 $\frac{3}{4}$ pts	11.73	20	0.559	0.125
20	Surprise Peas 2-3 servings	12.32	20	0.952	0.213
21a	Bovril 4 oz	33.14	21	1.566	0.341
22a	Marmite 4 oz	23.83	20	1.890	0.422
23	Colmans English Mustard 3 $\frac{1}{2}$ oz	19.31	24	0.674	0.138
24	Branston Pickle 11 oz	22.54	25	1.892	0.378
25	H.P. Brown Sauce 9 oz	17.27	22	1.145	0.244
26a	Heinz Tomato Ketchup 12 oz	24.43	21	0.583	0.130
30	Mazola Corn Oil $\frac{1}{2}$ litre	35.85	20	1.442	0.323
31	Cookeen Cooking Fat 8 oz	12.15	24	0.307	0.063
34	McVities Chocolate Homewheat 8 oz	21.33	23	1.464	0.305
37	Jacobs Cream Crackers 7 oz	12.08	24	1.532	0.313
38	Penguin Chocolate Count Line 6 pack	20.63	23	1.195	0.249
42	Ryvita Crispbread 6 $\frac{1}{2}$ oz	9.59	22	0.596	0.127
43	Ry-king Starch Reduced Crispbread 6 $\frac{1}{2}$ oz	15.87	23	0.638	0.133
46a	McDougalls Self-Raising Flour 3lb	21.52	23	0.994	0.207
47a	Homepride Self-Raising Flour 3lb	21.38	21	1.204	0.263
49	Tate & Lyle Sugar (gran) 2lbs	22.86	25	0.782	0.156
50	Rowntrees jelly 1 pint	12.00	27	0.732	0.141
51	Kelloggs Cornflakes 375g	20.7	20	0.967	0.216
52	Scotts Porage Oats 1 $\frac{1}{2}$ lbs	26.02	24	2.143	0.437
54	Batchelors Savoury Rice Std	20.18	20	0.507	0.113
58	Robertson's Golden Shred 1lb	22.65	26	2.350	0.461
59	Robertson's Jam (Raspberry) 1lb	26.4	21	1.623	0.354
61	Maxwell House Instant Coffee(powder) 4 oz	41.5	21	3.911	0.853
62	PG Tips Tea 4 oz	10.2	26	0.822	0.161
63	Typhoo Tea 4 oz	10.72	23	0.791	0.165
68	Ribena Blackcurrant 12 fl oz	34.62	20	3.687	0.824
69	Lucozade Large	29.31	21	1.508	0.329
70	Robinsons Barley Water	29.11	23	1.103	0.230
71	Coca Cola 11.5 fl oz	11.37	23	0.594	0.124

Product No.	Product Name	Average Retail Price (pence)	N	Standard Deviation	Standard Error
74	Carnation Evaporated Milk $1\frac{3}{4}$ pts	16.04	24	1.146	0.234
76	Nestles Sterilised Cream 6 oz	13.98	20	1.512	0.338
77	Stork Margarine pkt 8 oz	11.5	28	0.850	0.161
78	Echo Margarine pkt 8 oz	10.96	23	0.488	0.102
79	Flora Soft Margarine 8 oz	18.61	22	0.354	0.075
81	Dairylea Cheese Spread $3\frac{1}{2}$ oz	16.14	28	0.817	0.154
82	Kraft Processed Cheddar Cheese 7 oz	35.21	21	2.185	0.477

APPENDIX 3, TABLE 2

BRANDED PRODUCTS WITH 20 + OBSERVATIONS

AVERAGE RETAIL PRICES, NUMBER OF OBSERVATIONS (N), STANDARD DEVIATIONS AND STANDARD ERRORS

SECOND PRICES SURVEY

Product No.	Product Name	Average Retail Price (pence)	N	Standard Deviation	Standard Error
6a	Heinz Baked Beans 7 $\frac{3}{4}$ oz	9.57	27	0.352	0.068
6b	Heinz Baked Beans 15 $\frac{3}{4}$ oz	14.54	27	1.283	0.247
17	Heinz Vegetable Soup Tin 10 oz	11.72	27	0.313	0.060
17a	Heinz Vegetable Soup Tin 15 $\frac{1}{4}$ oz	14.32	28	0.643	0.122
18	Knorr Vegetable Soup Pkt 1 $\frac{3}{4}$ pts	12.54	24	1.030	0.210
20a	Surprise Peas 4 servings	19.43	20	0.746	0.167
21	Bovril 2 oz	18.43	20	0.239	0.053
21a	Bovril 4 oz	34.21	26	1.076	0.211
21b	Bovril 8 oz	66.64	25	1.792	0.358
22	Marmite 2 oz	15.07	23	0.812	0.169
22a	Marmite 4 oz	27.19	26	1.415	0.278
22b	Marmite 8 oz	50.78	25	2.950	0.590
23	Colmans English Mustard 3 $\frac{1}{2}$ oz	19.30	20	1.017	0.227
23a	Colmans English Mustard 6 oz	30.95	22	1.901	0.405
24	Branston Pickle 11 oz	22.52	22	1.442	0.307
25	H.P. Brown Sauce 9 oz	18.33	21	0.630	0.137
26	Heinz Tomato Ketchup 7 oz	16.78	20	0.487	0.109
26a	Heinz Tomato Ketchup 12 oz	24.40	21	0.766	0.167
30a	Mazola Corn Oil 1 litre	66.05	20	3.363	0.752
31	Cookeen Cooking Fat 8 oz	12.85	26	0.744	0.146
33	Trex Cooking Fat 8 oz	14.33	20	0.811	0.181
34	McVities Chocolate Homewheat 8 oz	19.78	23	1.712	0.357
34a	McVities Chocolate Homewheat 12 oz	28.93	23	2.071	0.432
37	Jacobs Cream Crackers 7 oz	14.00	25	1.327	0.265
38	Penguin Chocolate Count Line 6 pack	20.58	24	1.047	0.214
41	McVities Ginger Cake	20.29	21	1.105	0.241
42	Ryvita Crispbread 6 $\frac{1}{2}$ oz	10.25	24	0.936	0.191
43	Ry-king Starch Reduced Crispbread 6 $\frac{1}{2}$ oz	17.14	21	1.311	0.286
44	Greens Cake Mix 6 $\frac{1}{2}$ oz	11.45	20	0.789	0.176
45a	Birds Custard Powder 11 oz	20.50	26	1.056	0.207
46a	McDougalls S.R. Flour 3lb	21.20	26	1.591	0.312
47a	Homepride S.R. Flour 3lb	21.35	24	1.565	0.319
49	Tate & Lyle sugar (gran) 2lbs	23.26	23	0.792	0.165
50	Rowntrees Jelly 1 pint	12.67	21	0.418	0.091
51	Kellogg Cornflakes 375g	22.21	21	0.971	0.212
52	Scotts Porage Oats 1 $\frac{1}{2}$ lb	30.52	22	1.861	0.397

Product No.	Product Name	Average Retail Price (pence)	N	Standard Deviation	Standard Error
54	Batchelors Savoury Rice Std	21.76	23	0.572	0.119
58	Robertson's Golden Shred 1lb	23.78	27	2.386	0.459
59	Robertson's Jame (Raspberry) 1lb	25.98	26	2.050	0.402
61	Maxwell House Instant Coffee(powder) 4 oz	54.31	21	3.929	0.857
61a	Maxwell House Instant Coffee 8 oz	107.10	20	6.949	1.554
62	PG Tips Tea 4oz	10.35	27	0.844	0.162
63	Typhoo Tea 4oz	10.26	27	0.986	0.190
64a	Tetley Tea Bags 72 bags	32.13	20	1.572	0.352
65	PG Tips Tea Bags 36 bags	16.73	20	0.782	0.175
65a	PG Tips Tea Bags 72 bags	30.86	21	2.105	0.459
65b	PG Tips Tea Bags 144 bags	61.36	22	3.938	0.840
66	Typhoo Tea Bags 72 bags	30.95	20	2.274	0.508
68a	Ribena 17½ fl oz	45.76	21	1.750	0.382
69	Lucozade Large	31.41	23	0.210	0.461
74	Carnation Evaporated Milk Large 1¼pts	16.40	26	0.721	0.141
76	Nestles Sterilised Cream 6 oz	14.48	25	0.888	0.178
77	Stork Margarine pkt 8 oz	11.78	27	0.711	0.137
78	Echo Margarine pkt 8 oz	10.98	25	0.519	0.104
79	Flora Soft Margarine 8 oz	18.98	20	0.335	0.075
81	Dairylea Cheese Spread 3½ oz	15.83	27	1.326	0.255

APPENDIX 3, TABLE 3

Implied Retail Pricing Policies ⁺

First Prices Survey

* Rank (1)	% Mean Deviation on Basis of Branded items (2)	% Mean Deviation after substitution of Own-Labels (3)	Operator (4)	Sales Point No. (5)
1	+ 4.514	+ 4.238	Oakeshotts	10
2	+ 3.809	+ 3.620	Londis	22
3	+ 3.548	+ 3.548	Old Coulsdon Stores	24
4	+ 3.387	+ 3.387	Walton, Hassell & Port	21
5	+ 3.146	+ 2.702	Spar	23
6	+ 3.098	+ 4.450	W.H. Cullen	19
7	+ 1.924	+ 1.850	Oakeshotts	5
8	+ 1.453	+ 0.010	International Stores	25
9	+ 1.306	- 1.461	Sainsbury	8
10	+ 0.794	+ 0.147	Bishops	16
11	+ 0.646	+ 0.213	Caters	7
12	+ 0.605	+ 0.847	International Stores	11
13	+ 0.080	- 0.567	Co-op	26
14	- 0.220	- 0.512	Co-op	27
15	- 0.281	+ 0.905	Foodrite	20
16	- 0.315	+ 1.399	Budgen	15
17	- 0.440	- 1.617	Sainsbury	1
18	- 0.579	- 0.238	Tesco	6
19	- 0.924	+ 1.525	Waitrose	12
20	- 1.441	- 1.852	Wallis	17
21	- 1.515	- 0.418	Woolworth	3
22	- 1.765	- 1.764	Co-op	28
23	- 1.787	- 2.211	Liptons	18
24	- 1.814	- 1.814	Safeway	4
25	- 2.674	- 2.647	Key Markets	9
26	- 2.973	- 3.051	Tesco	13
27	- 3.498	- 3.141	Fine Fare	14
28	- 4.386	- 4.136	Key Markets	2

+ BASIS: Sample of Products with 20+ observations.

* Ranked according to Column (2).

APPENDIX 3, TABLE 4

Change in Ranking after Substitution of Own-Labels

First Prices Survey

* Ranking (1)	Sales Point No. and Operator (2)	Ranking after substitution of Own-Labels (3)	Column (3) c.f. Column (1)	
			Same	Within 3
			(4a)	(4b)
1	10 Oakeshotts	2		×
2	22 Londis	3		×
3	24 Old Coulsdon Stores	4		×
4	21 Walton, Hassell & Port	5		×
5	23 Spar	6		×
6	19 W.H. Cullen	1		
7	5 Oakeshotts	7	×	
8	25 International Stores	14		
9	8 J. Sainsbury	19		
10	16 Bishops	13		×
11	7 Caters	12		×
12	11 International Stores	11		×
13	26 Co-op	18		
14	27 Co-op	17		×
15	20 Foodrite	10		
16	15 Budgen	9		
17	1 J. Sainsbury	20		×
18	6 Tesco	15		×
19	12 Waitrose	8		
20	17 F.J. Wallis	23		×
21	3 Woolworth	16		
22	28 Co-op	21		×
23	18 Liptons	24		×
24	4 Safeway	22		×
25	9 Key Markets	25	×	
26	13 Tesco	26	×	
27	14 Fine Fare	27	×	
28	2 Key Markets	28	×	

* Ranked according to Column (2).

APPENDIX 3, TABLE 5

Implied Pricing Policies - (Branded Goods) - % Mean Deviations

Analysed by Sales Point Category Size, Location and Function

First Prices Survey

	Small Self Service <1999 sq. ft. Sales Area	Large Self Service 2000-3999 sq. ft. Sales Area	Supermarket 4000-7999 sq. ft. Sales Area	Large Supermarket 8000 + sq. ft. Sales Area
<u>TOWN CENTRE</u>				
Multiple	+ 1.924	-	- 1.814	- 1.297
Voluntary/Independent	-	-	-	-
Co-op	-	-	+ 0.080	-
Food Hall	-	-	-	- 1.515
<u>PRIMARY SUBURBAN CENTRE</u>				
Multiple	+ 1.845	- 0.315	- 1.696	- 0.924
Voluntary/Independent	-	-	-	-
Co-op	-	- 0.220	-	-
<u>SECONDARY SUBURBAN CENTRE</u>				
Multiple	+ 3.098	- 0.824	- 1.441	-
Voluntary/Independent	+ 3.536	-	- 0.281	-
Co-op	-	- 1.765	-	-

APPENDIX 3, TABLE 6

Implied Pricing Policies - (after substitution of own-labels) - % Mean Deviations
Analysed by Sales Point Category Size, Location and Function

First Prices Survey

	Small Self Service <1999 sq. ft. Sales Area	Large Self Service 2000-3999 sq. ft. Sales Area	Supermarket 4000-7999 sq. ft. Sales Area	Large Supermarket 8000 + sq. ft. Sales Area
<u>TOWN CENTRE</u>				
Multiple	+ 1.850	-	- 1.814	- 1.444
Voluntary/Independent	-	-	-	-
Co-op	-	-	- 0.567	-
Food Hall	-	-	-	- 0.418
<u>PRIMARY SUBURBAN CENTRE</u>				
Multiple	+ 1.356	+ 1.399	- 1.850	+ 1.525
Voluntary/Independent	-	-	-	-
Co-op	-	- 0.512	-	-
<u>SECONDARY SUBURBAN CENTRE</u>				
Multiple	+ 4.450	- 1.252	- 1.852	-
Voluntary/Independent	+ 3.290	-	+ 0.905	-
Co-op	-	- 1.764	-	-

MATRIX OF SALES POINT CATEGORIES
AND DEFINITIONS

APPENDIX 4, TABLE 1

MATRIX OF SALES POINT CATEGORIES

	Small Self Service < 1999 sq. ft. Sales Area	Large Self Service 2000-3999 sq. ft. Sales Area	Supermarket 4000-7999 sq. ft. Sales Area	Large Supermarket 8000 + sq. ft. Sales Area
<u>TOWN CENTRE</u>				
Multiple	01	02	03	04
Voluntary/Independent	05	06	07	08
Co-op	09	10	11	12
Food Hall	13	14	15	16
<u>PRIMARY SUBURBAN CENTRE</u>				
Multiple	17	18	19	20
Voluntary/Independent	21	22	23	24
Co-op	25	26	27	28
<u>SECONDARY SUBURBAN CENTRE</u>				
Multiple	29	30	31	32
Voluntary/Independent	33	34	35	36
Co-op	37	38	39	40

APPENDIX 4, TABLE 2

The shops included in the Sales Point Categories are as follows:

Sales Point Category 01	Oakeshotts, George St., Croydon.
Sales Point Category 03	Safeway, George St., Croydon.
Sales Point Category 04	Sainsbury, Whitgift Centre, Croydon Key Markets, Whitgift Centre, Croydon Caters, Surrey St., Croydon Tesco, Church St., Croydon
Sales Point Category 11	Co-op, London Rd., Croydon
Sales Point Category 16	Woolworths, Whitgift Centre, Croydon
Sales Point Category 17	*Liptons, Coulsdon Walton, Hassell and Port, Purley International Stores, Purley *Oakeshotts, Purley
Sales Point Category 18	Budgen, Selsdon
Sales Point Category 19	Key Markets, Volkswagen Centre, Purley Bishops, Mitcham Tesco, Coulsdon
Sales Point Category 20	Waitrose, Coulsdon
Sales Point Category 26	Co-op, Coulsdon
Sales Point Category 29	W.H. Cullen, Old Coulsdon
Sales Point Category 30	Fine Fare, Hamsey Green International Stores, Warlingham Green Sainsbury, Addiscombe
Sales Point Category 31	Wallis, Portland Rd., S. Norwood
Sales Point Category 33	Londis, Cherry Orchard Rd., Croydon Spar, near Volkswagen Centre, Purley Old Coulsdon Stores, Old Coulsdon +Alliance, South Croydon
Sales Point Category 34	+Wavy Line
Sales Point Category 35	Foodrite, Caterham Hill
Sales Point Category 38	Co-op, Morland Road, Croydon

* closed between 1st and 2nd Price Surveys.

+ substituted at 2nd Price Survey for *.

Definition of Sales Point Categories

LOCATION:

(1) Town Centre - that part of a town which is perceived by the shopper to offer the greatest relative attraction for shopping by virtue of the range and choice of both convenience and comparison shopping facilities. (Such centres may be characterised by the presence of one or more department stores as well as the larger stores of nationally known retailers. Furthermore, the trading activity of such centres may be readily identified by reference to the official statistics of the Census of Distribution for Great Britain).

(2) Primary Suburban Centre - a shopping area located away from the Town Centre which is relatively less attractive in overall shopping terms through the reduced choice of comparison shopping facilities. (Such centres may, however, have equal attraction with Town Centres in terms of convenience or food shopping and it is possible to identify some of these in relation to the G.B. Census of Distribution statistics).

(3) Secondary Suburban Centre - a shopping area orientated essentially to serve localised residential populations.

TYPE OR FORM OF TRADING

(1) Multiple - a retail distribution enterprise having 10 or more branches (establishments).

(2) Voluntary/Independent

- (i) Voluntary - a retail outlet that is a member of a Voluntary Group; that is, an arrangement under which a single wholesaler, or group of wholesalers, cooperates with retail members in both buying and retailing activity.

(ii) Independent - single establishment traders and businesses having 9 or less branches.

(3) Co-op - a retail co-operative society is an organisation engaged in retail trade and registered under the Industrial and Provident Societies Acts 1893 and 1961.

(4) Food Hall - an area of a store exclusively devoted to food sales in a store operated basically as a non-food outlet e.g. Department Store.

SIZE

(1) Small Self-Service - up to 1,999 sq. ft. of sales area.

(2) Large Self-Service - between 2,000 and 3,999 sq. ft. of sales area.

(3) Supermarket - between 4,000 and 7,999 sq. ft. of sales area.

(4) Large Supermarket - 8,000 + sq. ft. of sales area.

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