Part II of Article 3 (Review of Political Economy, 6,3)

Frederic S. Lee  De Montfort University

Appendix A

Summaries of studies on cost accounting and costing practices

1) 1907: Re cost accounts. The Accountant (March 16), 351.
   Costing of a business enterprise \( [M + W(1 + g)][1 + h] = ATC \)
   where \( M \) stands for per unit direct material costs;
   \( W \) stands for per unit direct wage costs;
   \( g \) is a percentage mark-up to cover factory overheads;
   \( h \) is a percentage mark-up to cover firm expenses; and
   \( ATC \) is average total costs.

   The article reported the results of two surveys on depreciation policies. The first was a questionnaire study involving 28 business enterprises from 28 different industries. The relevant results of the study are as follows:
   24 of the enterprises used original cost as the base on which they calculated depreciation;
   2/3 of the enterprises included depreciation in their product costs; and
   24 of the enterprises used a straight-line method in calculating depreciation.
   The second study also involved a questionnaire that covered 150 business enterprises engaged in the manufacture of machinery. The relevant results of the study are as follows:
   136 of the enterprises used original cost as the base on which they calculated depreciation for cost accounting purposes;
   2/3 of the enterprises included depreciation in their production costs; and
   2/3 of the enterprises used a straight-line method in calculating depreciation.

   N.A.C.A. Bulletin 19 917–34.
   The Research and Technical Service Department of the National Association of Cost Accountants undertook a questionnaire study to determine what methods business enterprises used to calculate normal capacity for burden rate determination. The study involved 224 business enterprises. The relevant results of the study are as follows.
   205 of the enterprises used predetermined or standard rates when applying overhead costs to direct costs;
   194 enterprises based their burden rates on estimated production or normal capacity; for enterprises who generally produced near or at full capacity, estimated production or normal capacity was largely based on its practical capacity; and
   for enterprises who generally operated at less than full capacity, estimated production or normal capacity was based on a number of factors, the most important being anticipated sales for the period under review, anticipated sales for a period of years in the future, average sales experience for a number of past years, and the practical capacity of the enterprise.


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The monograph covered five firms, two in the shoe industry, two in the paper industry, and one in the cotton textile industry. However we shall only be concerned with the first two firms. The shoe firms used a standard cost system to enable them to establish a selling price based upon estimated costs and to provide a standard for comparison with actual performance. Each firm calculated its standard average factory cost which included direct labour and material costs and overhead manufacturing expenses, with the standard volume of output based upon an estimate of sales for the upcoming six months. The actual costing procedure for standard average factory costs becomes:

\[ M + W + gW = SAFC \]

where \( M \) is standard average direct material costs;

\( W \) is standard average direct labour costs;

\( g \) is the percentage mark-up for manufacturing expenses which is based on a ratio of the total manufacturing expenses budget in dollars to the estimated total labour cost in dollars, computed from the production budget; and

\( SAFC \) is standard average factory costs.

Finally, selling and administrative expenses, i.e., firm expenses, are budgeted for and assigned to a particular line of shoes based on past experience. Thus, the pricing procedure becomes:

\[ SAFC + cp + m = price \]

where \( c \) is the percentage mark-up for firm expenses based on past experience;

\( p \) is the price; and

\( m \) is the absolute margin for profit.


In 1946, the Accounting Department of the Office of Price Administration carried out an investigation of the costing procedures used by American industry. A questionnaire was mailed to over 187370 companies in 150 industries and industrial groups. The answers received were informally compared with the cost information on file with the Accounting Department.

(1) The investigation found that approximately 41072 business enterprises, or just 22% of all the enterprises, had cost records.

(2) Of these 41072 enterprises, 40856 used a recognizable cost system.

(3) The 40856 cost systems used by the business enterprises broke down as follows:
   
   (a) 2422 or 5.9% of the enterprises used a job cost system;
   
   (b) 11550 or 28.27% of the enterprises used a process cost system;
   
   (c) 4050 or 9.91% of the enterprises used a standard cost system;
   
   (d) 3137 or 7.68% of the enterprises used a estimating cost system; and
   
   (e) 19697 or 48.21% of the enterprises used some other cost system.

(4) The investigation found that of the 40856 business enterprises which had cost systems, only 20282 or 49.64% of them could use their systems to calculate the average direct costs, average factory cost, or average total cost of their products.

   (a) 2292 or 11.3% of the business enterprises could only calculate their average prime or average direct costs.

   (b) 17990 or 88.7% of the business enterprises could calculate both their average direct costs and average factory costs which consisted of average direct costs plus the average shop expenses allocated to a specific product.

   (c) 16209 or 79.92% of the business enterprises could calculate their average direct costs, average factory costs, and average total costs which consisted of average factory costs plus the average firm expenses allocated to a specific product.


The study covered 72 business enterprises and how they used standard costs for pricing. The relevant results of the study are as follows.

62 of the enterprises made use of standard costs in pricing.

of the 51 enterprises that had catalogue prices for some or all of their products:
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5 of these enterprises adjusted material price standards to current market prices when using costs for pricing purposes,
12 of these enterprises adjusted standard costs to reflect anticipated changes in costs,
21 of the enterprises adjusted their standard costs by the ratio of actual cost to standard cost in preparing costs for pricing purposes; and
13 of the enterprises used the same standard costs for cost control and inventory costing purposes as for pricing; and
most of the 41 enterprises that had bid prices for some or all of their products built up cost on each order or request for price from detailed standards:
39 of the enterprises used quantity standards to estimate material and labour requirements of the order,
36 of the enterprises used material price and labour rate standards to estimate cost of material and labour of the order; and
37 of the enterprises used standard overhead rate to estimate overhead cost of the order.

7) Walkden, B. 1957: A consideration of some of the problems arising in the investigation of manufacturers' costs by the Ministry of Supply from 1939 to 1945 with particular reference to methods of uniform costing to price determination in the grey cloths section of the Lancashire cotton industry and in the textile narrow fabric industry. College of Technology, Barnsley, York.

In this monograph, the author noted the following,
(a) That the costing and pricing procedures used by the Board of Trade during the war to fix manufacturers' and distributors' prices for all consumer goods, except foodstuffs, were quite similar if not identical to the procedures used by the same business enterprises before and after the war.
(b) That the Ministry of Supply found that only large firms generally utilized systematic methods for arriving at costs.
(c) That the Ministry of Supply issued a Manual of Instruction by which all contracts were to be costed: the costing procedures embodied in the manual were \[ M + W(1 + g) \]
\[ (1 + h) = ATC \] where \( M \) is average direct material costs, \( W \) is average direct labour costs, \( g \) is a mark-up for administration costs, and \( h \) is a mark-up for selling and distribution costs, and \( ATC \) is average total costs.
(d) That the Ministry of Supply developed a method of costing/pricing for the cotton industry that was based on determining average direct and overhead costs at specific levels of output for each business enterprise and average-modified costs to create an average total cost for the industry as a whole; a margin for profit and depreciation (which took into account the different firms' cost structures and capital assets) was added to the average total cost to set the price.
(e) That the price for narrow fabrics set by the Ministry of Supply was based on the costing/pricing procedures \[ M + W (1 + g)/(1 + h) (1 + f) = \text{price} \] where \( f \) was a mark-up for profit which would give the 'average' enterprise a predetermined rate of return on capital employed.
(f) That the costing and pricing procedures used by the Yarn Spinners Association and Yarn Doubler's Association to fix prices after the war were quite similar to the costing and pricing procedures used by the Ministry of Supply during the war, especially in setting the price of narrow fabrics.
(g) That for enterprises in the same market or industry to jointly establish an 'industry' price equation, they must first have to accept and utilize a uniform cost accounting system.


The author tested the hypothesis that the costing method used by business enterprises was a function of their cost structure. A questionnaire, that included questions on cost structure and costing method, was mailed to 109 Norwegian industrial firms and 80 usable replies were received. The relevant results of the study are as follows:
19 enterprises used direct costing - i.e., costing restricted only to the product's direct costs;
17 enterprises used variable costing — i.e., costing which included direct costs and indirect variable costs;
44 enterprises used full costing — i.e. costing which included direct costs, indirect variable costs, and fixed costs; and
the enterprises which used full costing had a lower percentage of fixed costs than the enterprises which used the other costing methods.

Langolin re-evaluated his investigation a few years ago and found a tendency for many firms to move back to full costing (or at least use both direct and full costing procedures depending on the situation). This re-switching appeared to be correlated with the phenomenon of a greater survival frequency for firms who retained full costing. (Langolin, O. personal communication, 5 September 1981)


A questionnaire was sent to 58 members of the Institute of Cost and Works Accountants employed in the Nottingham-Derby area and in North Lincolnshire. The questionnaire was prepared with two basic objectives.
(1) To determine the extent to which marginal costing techniques were used by cost accountants in practice, and how and for what purposes they were used.
(2) To test out some notions based on practical experience of the use and understanding of marginal costing techniques by practical cost accountants.

Twenty-one completed questionnaires were returned. The relevant results of the study are as follows:
12 enterprises did not use marginal costing techniques.
9 enterprises did employ marginal costing techniques to various degrees.

To see whether the nine enterprises, plus two other enterprises who also wanted to complete the questionnaire, used marginal costing techniques for primary or secondary pricing decisions, they were asked the following question: 'Do you determine selling price, or at least make recommendations as regards selling price, on a marginal cost basis or on a full cost basis, or both?' The answers may be summarized as follows:

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Number of Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full cost</td>
<td>2 enterprises</td>
</tr>
<tr>
<td>Mainly full cost</td>
<td>2 enterprises</td>
</tr>
<tr>
<td>Both marginal and full cost</td>
<td>6 enterprises</td>
</tr>
<tr>
<td>Marginal cost</td>
<td>1 enterprise</td>
</tr>
</tbody>
</table>

The six enterprises who used both marginal cost and full cost appeared to restrict marginal cost to exceptional at sales, e.g. tenders, by-products, unusual work, sub-contracting, disposing of obsolete and out-dated production, exports, etc, and do not make use of marginal cost when pricing their main products in the home market.


A questionnaire on the use of cost data in pricing decisions was sent to the Fortune 1000 industrial enterprises and 505 usable responses were received. The relevant pricing results of the study are as follows.
(a) 54 enterprises marked up average direct labour, materials, and other variable costs to set the price — ($ADC \times (1 + k)) = price.
(b) 30 enterprises marked up average direct costs plus average variable firm expenses to set the price — ($ADC + AVFE \times (1 + k)) = price.
(c) 168 enterprises marked up average direct cost plus average shop expenses to set the price — ($ADC + AVS \times (1 + z)) = price.
(d) 41 enterprises marked up average factory costs plus average variable firm expenses to set the price — ($AVC + AVFE \times (1 + z)) = price.
(e) 208 enterprises marked up average factory costs plus average firm expenses to set the price — ($ATC \times (1 + r)) = price.

To summarize, 84 enterprises (or 17% of the enterprises) used mark-up pricing procedures, while 417 enterprises (or 83% of the enterprises) used normal cost or target rate of return pricing procedures. The 84 mark-up pricing industrial enterprises were spread throughout the industrial sector of the economy and were nearly evenly split between the Fortune 500
industrials and the Fortune 501–1000 industrials.

A second result of the study was that of the 449 enterprises who answered the question about depreciation, 425 reported the use of historical cost depreciation for typical pricing decisions, and only 24 enterprises reported the use of replacement cost depreciation. As was the case with pricing, the few users of replacement cost were found in only a few industries, and they were a small minority of the respondents even in these industries. Again, there was no substantial difference between the largest 500 enterprises and the next 500.


The Committee interviewed 17 manufacturing enterprises and one department store whose sizes ranged from less than 300 to approximately 3000 employees.

Direct costing involves dividing all costs into variable costs and fixed costs, with variable costs being the product costs and the fixed costs being a period cost which is covered by the margin for profit.

All the enterprises in the study used direct costing. There were, however, some particular findings which are of some interest.

(a) 16 of the enterprises used standard costing systems to determine direct costs, while the other two enterprises used historical costing systems.

(b) Those enterprises which used direct costing included variable manufacturing overheads as part of the direct manufacturing costs, even though these costs were, as a practical matter, assigned by allocation based on normal output.

(c) The enterprises acknowledged that direct costing was particularly useful in meeting price cutting and under conditions of capacity production when it was necessary to determine which products should have their production increased.

(d) All the enterprises had methods for assigning all costs to product classifications to develop product costs for use in pricing decisions.

(e) The general pricing procedure emerging from the study was \[ AVC (1 + z) = \text{price} \], where \( AVC \) is average variable costs based on normal output, and \( z \) is a mark-up for fixed costs at normal output and for profit.

(f) Six enterprises costed inventory at direct costs in preparing financial reports to stockholders; while eight enterprises employed direct costing of inventory for internal purposes, but adjusted inventory to an absorption cost basis in reports to stockholders.


The study covered 65 business enterprises who were interviewed to ascertain what practices they follow in the use of costs for pricing. The relevant results of the study are as follows.

(a) Pricing decisions were usually made by some administrative committee within the enterprise; responsibility for 'day-to-day' pricing is delegated, whereas top management attention is centred on policy and unfavourable deviations from planned profits.

(b) The accounting department usually supplies the following types of information for use by executives responsible for pricing:

(i) costs of the individual products to be sold;
(ii) anticipated profit, computed on a unit basis and compared with the standard objective established by company policy; and
(iii) historical reports of profits realized.

(c) The enterprises interviewed commonly prepared for pricing by adjusting historical costs to reflect changes that have taken place or which are expected to take place in the near future.

(d) Basis for costing products:

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current market or standard cost adjusted</td>
<td>30 enterprises</td>
</tr>
<tr>
<td>Anticipated replacement price or standard cost adjusted</td>
<td>6 enterprises</td>
</tr>
<tr>
<td>Actual historical cost</td>
<td>12 enterprises</td>
</tr>
<tr>
<td>Standard cost unadjusted</td>
<td>6 enterprises</td>
</tr>
<tr>
<td>Practice not ascertained</td>
<td>1 enterprise</td>
</tr>
</tbody>
</table>
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(i) 36 enterprises used current market or anticipated replacement price to cost material costs.
(ii) Overhead costs which are based on labour use are usually revised when changes in labour rates occur.
(iii) Most of the enterprises used historical costs when dealing with depreciation.
(e) Although plant and equipment were fully depreciated, some enterprises still included provisions for them in their product costs.
(f) Practice in determining the volume base for overhead costs:
   (i) 42 enterprises used normal or standard output to determine overhead costs.
   (ii) 13 enterprises used actual output to determine overhead costs.
   (iii) The enterprises based normal or standard output on long-period average sales expectancy, average actual sales from past years, production budgeted for the coming period, or the capacity to manufacture.
(iv) The enterprises based actual output on sales experience in a recent period.
(g) Enterprises which used 'marginal analysis' and 'marginal costs' in pricing generally did so in extreme price-cutting situations in which a 'bottom-lined' price had to be determined.


The following findings were based upon a study of 151 Danish manufacturing enterprises.
(a) Concerning the principles governing the allocation of shop expenses on products:
   (i) 26 enterprises used labour hours or labour costs.
   (ii) 85 used labour and material costs or physical unit and/or machine hours.
   (iii) 30 used more detailed systems.
(b) Marketing costs were distributed over the products by a uniform mark-up.
(c) Only two enterprises used direct costing; other enterprises had tried direct costing, but returned to allocation costing — the enterprises know of direct costing, but prefer allocation costing.
(d) Enterprises used allocation costing because of the belief that it produced the 'right price', the 'best price'.
(e) The enterprises calculated depreciation based on historical costs and the calculation procedures were laid down by the government revenue commission.
(f) Some enterprises allocated shop and firm expenses based on competitive pressures.


The study involved visiting 53 American manufacturing and retail enterprises in 1950. The study attempted to find out what accounting, costing and statistical information was provided for American management at different levels and by what methods it was obtained and how it was used. The relevant results of the study are as follows.
(a) Financial accounting and costing functions are strongly represented at top executive level in American enterprises.
(b) Generally, overtime premiums were treated as an indirect expense.
(c) For most enterprises, the sales forecast was made by studying the actual figures of the past, current conditions and possible future trends; forecasts were generally made in dollars but in many cases sales quantities were substituted or added.
(d) Selling prices were almost always fixed by the sales department who were supplied with the necessary figures by the cost department.
(e) Over half of the enterprises used standard costs as the basis of their product costs; many other enterprises used current expenditure (i.e. historical costs) as the basis of their product costs; one enterprise used marginal costing as the basis of their product costs.
(f) Most of the enterprises revise their standard costs for their products on an annual basis.
(g) Nearly all of the enterprises based their depreciation charges on historical or original costs.


This study reports the results of a questionnaire survey and a follow-up series of telephone
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interviews into the standard costing and budgeting systems of British industrial companies. The study involved 453 completed questionnaires and 15 telephone interviews. The relevant results of the study are as follows.
(a) 345 (76.2%) of the industrial companies used standard costing systems, and the use of these accounting systems increased with company size.
(b) 36 (8%) of the companies had abandoned standard costing within the last decade.
(c) 285 of the companies reported modifying their standard costing systems for the following reasons:
- 166 companies — to improve effectiveness of the control system
- 79 companies — to reflect changes in technology
- 8 companies — standards too frequently out of date due to inflation
- 31 companies — standards too frequently out of date due to change in circumstances/markets
- 10 companies — other, such as too expensive to maintain, manufacturing curtailed, insufficient understanding and support at plant level, and switched to an actual cost system
(d) 245 of the 345 companies using standard costing systems revise their standards annually.
(e) 108 of the 345 companies using standard costing systems revise their standards when circumstances change.
(f) Basis on which standards are prepared:
- 192 companies — absorption cost based on budgeted volume
- 103 companies — direct/marginal/variable cost
- 43 companies — absorption cost based on normal volume
- 6 companies — absorption cost based on a different volume basis


The study involved 22 industrial enterprises, and its relevant results are as follows.

Summary of costing systems used by the enterprises
- 22 of the enterprises used absorption-based costing systems
- 17 of the enterprises used a historical cost depreciation policy
- 5 of the enterprises fully expensed all assets in the current period (so they had, as a result, no assets to depreciate)
- 1 enterprise used both a historical cost depreciation policy and fully expensed assets policy
- 1 enterprise had no depreciation policy since it leased its assets


The study was designed to find out what actual accounting practices manufacturing enterprises used when making pricing decisions. As a result, a questionnaire was sent to 697 manufacturing enterprises in the Greater Manchester area and 99 usable replies were received. The relevant results of the study are as follows.
(a) Treatment of depreciation charges
- 64 enterprises used used historical costs.
- 21 enterprises used current replacement costs.
- 7 enterprises used revaluation of fixed assets.
(b) Treatment of fixed overheads
- 64 enterprises included fixed overhead in product costs.
- 27 enterprises made allowance for fixed overhead in the profit mark up even though it was not allocated.
- 5 enterprises made information on marginal costs available to their price setters.
(c) The use of accounting information for pricing decisions
- 67 of the enterprises regularly used accounting information.
20 of the enterprises did not regularly use accounting information.

(d) The use of non-routine information for pricing decisions

Non-routine information is defined as information not routinely provided by the formal accounting system in place.

10 enterprises used such information for over 75% of pricing decisions.
10 enterprises used such information for 50–75% of pricing decisions.
19 enterprises used such information for 25–50% of pricing decisions.
55 enterprises used such information for under 25% of pricing decisions.

(e) The relative use of regular accounting information and non-routine information

42 of the enterprises which regularly used accounting information used non-routine information in under 25% of their pricing decisions.
13 of the enterprises which regularly used accounting information used non-routine information in 25–50% of their pricing decisions.
11 of the enterprises which did not regularly use accounting information used non-routine information in under 25% of their pricing decisions.
5 of the enterprises which did not regularly use accounting information used non-routine information in 25–50% of their pricing decisions.

(f) Accounting practices and pricing decisions

79 enterprises indicated that long-established company practice determined the type of information the accountant provided for pricing decisions.
55 of the 79 enterprises add new information from time to time.

(g) Conclusions

(i) The accounting systems of the responding enterprises generally reported traditional data to the managers responsible for pricing decisions.

(ii) Regular accounting information is provided for pricing decisions much more frequently than non-routine information.

(iii) Accounting information provided by the accountant is based on relatively stable practice, which suggests that the provision of information is itself the result of historical decisions and subject only to minor adjustments.


The study involved interviewing manufacturing enterprises whose essential characteristic was that they were divisionalized in management structure. The relevant results of the study are as follows:

(a) Long-term investment strategy and capital budgeting

28% of the enterprises' long-term strategy was imposed by top management. 72% of the enterprises' long-term strategy was agreed with divisional management by top management.

All enterprises originated and evaluated their own capital budget; however, the approval of expenditures remained a group responsibility, divisions competing for limited capital resources.

(b) Divisional performance measured

Multiple objectives frequently set.
92% of the enterprises used return on capital employed.
31% of the enterprises used profit percentage on sales. Budget achievement, cash generation, working capital control, and market share were also used.
Where multiple methods were employed there was a considerable subjective element in the weighting of evaluation factors.

(c) Accounting systems

Most enterprises used absorption-based costing systems.
Enterprises made little use of marginal costing or flexible budgetary control.

(d) Transfer pricing

Transfer prices on goods and services were mostly set by negotiation; but there was a
marked preference for the centralized determination of methods of charging for central services, usually at full cost.


The study involved investigating ten electronics business enterprises. The objective of the study was to determine the extent to which the enterprises had adopted existing management accounting practices and created new ones to cope with the demands of their dynamic environment. In addition to examining the main management accounting reports with these enterprises, interviews were held with the senior management accountants, members of the staff and a sample of managers who made use of the management accounting information. The relevant results of the study are as follows.

(a) Factors influencing the management accounting systems used by an enterprise

Resourcing of the management accounting function.
- Parent company
- Organizational structure
- Structure of product cost
- Competitive strength of the market
- Production technology
- Prior experience of management accounting staff in other enterprises
- Financial performance
- Managerial influence

(b) Costing systems

Although some of the enterprises were using a partial standard costing system, most were using an actual (or historical) costing system.

Costing focuses on direct material costs which comprise from 50% to 90% of production costs.

Most enterprises treat direct labour costs as overhead costs.

(c) Performance measurement

Financial performance indicators: return on investment, sales margin percentage, working capital turnover, cash flow.


Most managers saw limitations in using financial performance indicators and so viewed the non-financial performance indicators as becoming relatively more important.

(d) Investment decisions

All the enterprises used discounted cash flow methods on substantial long-term investment projects.

The enterprises accepted that uncertainty inherent in DCF usually rendered the results of quantitative analysis extremely tentative.

For all enterprises, the case for investment had normally been well established on qualitative grounds before DCF analysis was done; the application of DCF techniques tended to be a final justification process for a decision more or less already taken.

For new products whose life cycles were short (averaging two years), a target payback period of a few years was frequently applied instead of using DCF appraisal.


The author interviewed 20 manufacturing and retail enterprises on a variety of items, one of which was their cost accounting procedures. The relevant results of the study are as follows.

(a) Type of accounting system used

(i) 11 enterprises used a standard costing accounting system.
(ii) 8 enterprises used a budgeting accounting system.
(iii) 3 enterprises used a budgetary control accounting system.
(iv) 3 enterprises used a historical accounting system.

(b) The budget or planning period used by the enterprises was usually one year.

(c) The enterprises calculated depreciation based on historical cost.

(d) Costing systems

11 enterprises used standard costing.
2 enterprises used estimated costing.
11 enterprises used historical costing.
Some enterprises used more than one type of costing.

(e) Depreciation methods
21 enterprises used the straight-line method.
3 enterprises used the diminishing balance method.
1 enterprise used the accelerated rate on fixed balance method.

(f) Methods of taking account of higher cost of replacement
5 enterprises used depreciation based on revalued assets.
12 enterprises used appropriation to specific reserve.
2 enterprises bore in mine the higher replacement costs when making general appropriations.
6 enterprises had no separate method.

(g) Detail of product profitability information in income statement
6 enterprises had it for products.
5 enterprises had it for product groups.
9 enterprises had it for departments or processes (often equivalent to product groups).
2 enterprises had it for a combination of product groups and departments.
2 enterprises had it only for the business as a whole.

(h) Use of various methods of allocating manufacturing overhead to units of product
1 enterprise used % of direct cost only.
1 enterprise used % of materials or direct labour cost (DLC) according to department.
7 enterprises used % of DLC only.
2 enterprises used % of DLC or labour hour rate (LHR) according to department.
2 enterprises used LHR only.
3 enterprises used LHR or weight according to department.
2 enterprises used LHR or machine hour rate (MHR) according to department.
2 enterprises used MHR only.
3 enterprises used department hour rate only.
1 enterprise used units of product.

(i) Output base to determine the costs for pricing
3 enterprises used historical output.
2 enterprises estimated last year's output adjusted for forecasted changes.
7 enterprises used estimated sales forecast for the coming year.
1 enterprise used standard output of a base year.
7 enterprises used normal capacity.
3 enterprises used maximum output of planned capacity.

(j) Bases used in allocating non-manufacturing overhead to units of product
15 enterprises used a blanket rate.
If selling and advertising costs are allocated together the following bases used were % on conversion costs, % on works cost, % on invoice value, units of product.
If selling and advertising costs are allocated separately the following bases used for selling costs were % on invoice cost and % of sales conversion margin and for advertising costs were % of conversion costs and hourly rate.
6 enterprises used department rates.
If selling and advertising costs were allocated together then the % on work costs base was used.
If selling and advertising costs were allocated separately they were generally allocated with a manufacturing overhead.

(k) The accountants of the enterprises thought that all costs should be assigned for the purpose of product pricing.

(l) 3 enterprises used marginal costing theory in which marginal costs consists of average direct costs plus average variable overhead.


104 business enterprises located among the Fortune 1000 largest industrial enterprises were
surveyed with regard to their use of standard cost accounting. The relevant results of the study are as follows.
(a) 50 enterprises used standard cost accounting.
   22 enterprises used actual cost accounting.
   32 enterprises used both standard cost and actual cost accounting.
(b) 57 enterprises changed their price standards once a year.
   25 enterprises changed their price standards several times a year as required.


The study covered 55 business enterprises who were interviewed to ascertain what practices they follow regarding depreciation. The relevant results of the study are as follows.
(a) Prior to 1954, 52 business enterprises used the straight line method almost exclusively, both for taxes and for accounting purposes.
(b) Post-1954 for tax purposes, 40 business enterprises used declining charge methods, 14 used the straight line method, and 1 used the output units method applied to all units.
(c) To value capital assets, business enterprises in the US used historical costs.
(d) One-third of the business enterprises restated depreciation charges in terms of the current price level and used this information for various managerial purposes.
(e) 49 business enterprises used the same methods for profit and loss accounts as for income tax returns; 5 business enterprises used declining charge methods elected solely for tax purposes, straight line or output unit method in profit and loss accounts; and 1 business enterprise used straight line method for tax purposes and declining balance methods for profit and loss accounts.
(f) Many business enterprises used multiple depreciation methods; methods used were affected by the tax laws.
(g) 12 business enterprises treated depreciation on manufacturing facilities as a period charge as opposed to product costs; of these 12 enterprises, only a few used direct costing.
(h) For most of the business enterprises, the amount of depreciation determined for overall financial reporting purposes was also charged into departmental costs. The same depreciation methods were thought to yield satisfactory costs for internal use as well as for external reporting.
(i) In business enterprises where the depreciation methods employed in the general financial accounts differed from those used to determine product costs, we have the following cases: (1) standard machine-hour rates based upon departmental cost budgets which included depreciation calculated by the straight line method; and (2) operating costs were charged with straight line depreciation and the increased or decreased amounts due to accelerated rates charged or credited to administrative expense.
(j) Only 3 business enterprises prepared product costs for pricing purposes which included depreciation on current replacement value of the assets.


This study reports the results of a questionnaire survey into the management accounting techniques used by British industrial and service enterprises. The relevant results of the study are as follows.
(a) **Costing systems**
   108 enterprises maintained a costing system.
   31 of the enterprises used a standard costing system.
   6 of the enterprises employed a formalized system of marginal costing while 20 others did not use a formalized system.
   20 enterprises representing 8 broad industrial classifications indicated that there was a uniform costing system of some kind in the industry in which the concern operated, but only 13 of the enterprises affected did in fact use such a system.
   48 of the enterprises used a budgetary control costing system.
   Many of the enterprises used more than one costing system.
(b) **Overhead**
   Methods for ‘absorbing’ shop expenses (or production overhead) included direct material
costs, direct labour costs, direct costs, man-hour rate, machine-hour rate, and units produced.

Methods for 'absorbing' firm expenses (administration and selling and distribution overhead) included direct labour costs, direct costs, production costs, sales value, and units sold.

When calculating absorption rates, the level of capacity over which such overheads were spread was stated to be budgeted or estimated production, normal capacity, average capacity and maximum capacity.

(c) Marginal costing

20 enterprises used marginal costing for the following decision-making purposes: which job or order to accept in preference to some other job or order (cited by 7 enterprises), whether to produce in-house or buy outside, to subject a by-product to further processing, to determine which machine to do a certain job, and to introduce double-shifting working (cited a total of 30 times by the enterprises), and to determine the lowest price chargeable for a product during a trade depression or when surplus capacity exists (cited by 17 enterprises).

(d) Objectives of the enterprises

Maximization of Profits — 43 enterprises.
Qualified maximization of profits — 4 enterprises.
Reasonable profits — 44 enterprises.
Qualified reasonable profits — 23 enterprises.
Remain in business — 5 enterprises.
Other — 6 enterprises.
None — 7 enterprises.

(e) Forecasting demand

19 enterprises used market research alone.
52 enterprises used only past experience.
21 enterprises used both market research and past experience.

(f) Utilization of excess capacity

21 enterprises would do nothing to employ excess capacity.
27 enterprises would make components, make for stock, or make new products.

(g) Increasing share of market (86 enterprises provided information)

40 enterprises would reduce prices.
48 enterprises would increase advertising.
44 enterprises would extend trade credit, grant cash discounts, etc.

(b) Pricing policies

81 enterprises fixed prices by reference to costs, 21 enterprises did not, and 30 enterprises did not respond.
79 enterprises fixed prices by reference to normal or standard average factory costs or average total costs.
1 enterprise fixed prices by reference to marginal costs.
23 enterprises stated that they considered marginal costs to have any relevance to price-fixing in normal trading conditions.
33 enterprises would sell at prices below ATC in a trade depression.
22 enterprises would sell at prices below ATC when faced with surplus capacity.
16 enterprises would sell at prices below ATC when marketing a new product or breaking into a new area.
60 enterprises would sell at prices below ATC when disposing of obsolete or surplus stock.

(i) Measurement of the desired level of profit

22 enterprises used % on capital employed.
47 enterprises used % on sales.
10 enterprises used both.
2 enterprises used % on costs.
Capital employed was defined usually in terms of assets at historical costs.

(j) Depreciation

Methods normally used were straight-line and reducing balance.
To deal with higher replacement costs 15 enterprises increased the charge for deprecia-
tion, 25 enterprises put profits in reserve, and 2 enterprises valued the assets at current prices.

(k) 42 of the enterprises said that investment allowances induced them to replace or add to their plant and equipment.

(l) Methods for making replacement of plant decisions
   31 enterprises used pay-back period only.
   22 enterprises used rate of return on original investment only.
   2 enterprises used discounted cash flow.
   4 enterprises used all three methods.
   3 enterprises used two of the three methods.
   12 enterprises used other methods.
   57 enterprises did not provide any information.

Appendix B

Summaries of studies in pricing

In evaluating the empirical evidence supporting the use of mark-up, normal cost, and target rate of return pricing procedures by business enterprises, many economists have commented on the lack of empirical investigations into the subject matter. Others have argued that the empirical evidence is suspect because of the investigators' reliance on the questionnaire method. The purpose of this appendix is to indicate the breath and depth of the empirical evidence supporting the use of such pricing procedures by business enterprises, and the multifact research methods used in the investigations. This will be done by presenting a summary of each study. The studies covered in this Appendix have been cited by economists at one time or another as showing business enterprises using one or more of the above procedures. In some cases, studies have been grouped together if they were conducted by the same individual(s) or if they covered the same business enterprise or industry.

Key to summary studies

(1) Origin of investigation — i.e., business, economic, or accounting.
(2) Methodology — i.e., survey, interviews, questionnaire, case study, etc.
(3) Number of business enterprises.
(4) Nature of business enterprises — i.e., industrial, manufacturing, wholesale, or retail.
(5) Pricing procedures and price policies — `price policies' refers to price stability over the business cycle or for a series of sequential transactions, to the stability of the costing margin or mark-up over the business cycle or for a series of sequential transactions, to the considerations used when determining the costing margin or mark-up and the price, and to administering the price or the costing margin or mark-up to the market.
(6) Pervasiveness of pricing procedures and price policies. (Absence of any number in a summary means that the study did not provide the required information.)


(1) Business and economic.
(2) Case study.
(3) One.
(4) Automobile manufacturer.
(5) \[M + W(1 + g)](1 + \delta) = \text{price}\]
   where \(M\) is average direct material costs based on standard volume;
$W$ is average direct labour costs based on standard volume;
$g$ is a standard mark-up for shop expenses; and
$t$ is the mark-up on standard average factory costs to cover firm expenses, which
are calculated as a standard percentage of the price, and to produce enough
profits at standard output to meet the target rate of return on capital (which
included both working and fixed capital).

(a) The price set by the pricing procedures is called the standard price and it may
coincide with the actual selling price.

(b) Standard volume is based on the normal average rate of plant operation in light of
the cyclical and seasonal fluctuations of sales; for General Motors it is 80% of
capacity.

(c) If actual output differs from standard volume, then the actual rate of return will differ
from the target rate of return; $t$, hence the price, is not reduced when sales are
expanding, or increased when sales are contracting, in order to equate the actual rate
of return with the target rate.

(d) Changes in the standard price arise from long-term changes in $g$ and $t$, such as
competitive pressures affecting production and distribution costs, as an increased
fixed investment ratio due to the construction of additional plant for the purpose of
manufacturing parts previously purchased from outside sources of supply, and as the
need to generate profits to finance expansion of plant and equipment.

(e) On the other hand, short-term competitive pressures are reflected by setting the
actual price different from the standard price, which means the target rate of return
will differ from the standard target rate of return if standard volume is obtained.

(f) The target rate of return is not the highest attainable, but rather the highest return
consistent with attainable volume.

(g) Automobile prices fall within historically defined price groups — low price cars,
medium price cars, and high price cars — which are based on supernumerary
income.

(h) A car is designed for a specific price group so as to make the target rate of return on
investment, if standard volume is obtained over a period of years.

(i) Prices are set in advance of production and administered to the market; they are
rarely changed during the model year.

(j) Automobile sales depend on income not price, especially in a ‘mature’ market.

   (1) Business.
   (2) Personal interview and case studies.
   (3) Not stated.
   (4) Manufacturing and retail firms.
   (5) $M \times (W + AOHC)(1 + r) = price$
      where $M = $average direct material costs based on normal output;
      $W = $average direct labour costs based on normal output;
      $AOHC = $average overhead costs based on normal output;
      $r = $mark-up for profit based on normal output;
      $c = $purchase price of the good; and
      $k = $standard mark-up.

   (a) Costs and price are based on normal output; hence output can vary without prices
changing.

   (1) Economic.
   (2) Questionnaire.
   (3) 45 firms returned the questionnaire, but only 41 of them answered the question on
pricing and price policy.
   (4) Manufacturing business enterprises.
   (5) $[(ADC)(1 + t)](1 + r) = price$
      $[(ADC)(1 + g)(1 + h)](1 + r) = price$
\[\{ATC\} (1 + r) = \text{price}\]

where \(ATC\) is average total costs;

\(ADC\) is average direct costs;

\(g\) is a mark-up for shop expenses;

\(h\) is a mark-up for firm expenses;

\(v\) is a mark-up for overhead costs; and

\(r\) is a mark-up for a fair margin of profit.

(a) All costs are based on estimated production or normal capacity.

(b) \(r\), hence the price, is affected by competitive pressure.

(c) Most business enterprises had products whose prices were determined after considering the prices of competing products; they also had products whose prices were simply set.

(d) In some cases, market prices for particular products were 'conventional'; thus pricing procedures were used by the enterprise to see if it could make normal profits selling the product.

(6) Over 65% of the firms used the above pricing procedures.


(1) Economic.

(2) Interviews guided by a questionnaire.

(3) 38.

(4) Manufacturers, retailers, and builders.

(5) \([(ADC) (1 + v)] (1 + r) = \text{full cost price}\]

where \(ADC\) is average direct costs;

\(v\) is the percentage mark-up for average overhead costs at expected, historically estimated, or normal output; and

\(r\) is the mark-up for profit.

(a) \(r\) is 'conventional' for many firms and will vary between firms.

(b) Within a firm, \(r\) will vary for different product lines, especially in light of the different degree of market competition faced by each product.

(c) Changes in input prices and taxes will lead to a revision in the full cost price.

(d) Once set, firms would adhere to the full cost price for many sequential transactions.

(e) When faced with a severe decline in sales or with price wars, some of the firms may reduce their price below the full cost price by reducing their mark-up for profit.

(f) Firms who are price followers may not be able to set a full cost price, i.e. one which gives them their conventional margin for profit.

(g) Permanently increases in sales which lead to a lower average total cost will lead firms to revise their full cost price downward so as to prevent the entry of new competitors into their markets.

(6) The costing and pricing procedures were used by at least 35 of the firms, while the 'full cost' price policy was adhered to in principle, if not in fact, by at least 30 of the firms.


(1) Economic.

(2) Interviews, studying company documents, gathering data from manufacturers, dealers, and farmers, and case studies.

(3) Eight.

(4) Agricultural implements manufacturers.

(5) \([[W + M] (1 + g) (1 + h)] (1 + r) = \text{price}\]
\[ M + W(1 + g)(1 + z) = \text{price} \]

where \( W \) is normal average direct labour costs;
\( M \) is normal average direct material costs;
\( g \) is a mark-up for normal average shop expenses;
\( h \) is a mark-up for normal average firm expenses;
\( z \) is a mark-up for firm expenses and profit; and
\( r \) is a mark-up for profit.

(a) The manufacturers felt that pricing was primarily a cost accounting problem.
(b) Normal costs are based on an estimated normal level of capacity utilization or on a normal level of output, which in turn is based on past production covering a considerable period of time and designed to average good years with bad and possibly some factors which may reasonable be expected to influence normal production in future years.
(c) Prices are maintained for the selling season.
(d) The normal costs on which the price is based can be different from the actual costs incurred during the season.
(e) Price changes occur at the end of the season and can be due to cost changes or changes in competitive conditions which necessitates a change in policy.
(f) The manufacturers believed that price changes within practical limits will not influence the sale of agricultural implements to any appreciable degree; rather, farm income is considered to be the most important factor in determining the volume of sales.
(g) The retail prices are set by the manufacturers and their distributors must follow them if they want their contracts renewed; this prevents distributors of a specific manufacturer from competing with each other and thus causing distribution problems.
(h) The view that price stability on the input side contributed greatly to output price stability observed during the depression years.
(i) All of the manufacturers.


(a) Costing procedures
(i) \( ATC \) is average total costs; and \( r \) is a mark-up for profit.
(ii) \( ATC \) is based on a predetermined level of output.
(iii) This predetermined level is based on full maximum output, normal or standard output (which ranges from less than 75% to over 90% of full maximum capacity), historical output, or expected output.
(iv) Depreciation is part of costs and is based on historical costs and its actual amount is derived by a straight-line approach or a diminishing balance approach; there are some enterprises which do not include depreciation as part of costs and simply deduct a particular amount from profits each year.

(b) Price policy
(i) When setting output prices, most the enterprises try to make contracts with the suppliers of the material inputs which would last the pricing period.
(ii) Most of the enterprises fixed prices for a specific period of time (a 'season' or the pricing period) which generally ranged from 6 months to a year; during the pricing period, variations in sales or in input prices will not affect the price.
(iii) Some prices which are set are 'charm prices' and hence are not easily changeable.
(c) Demand and price changes

(i) Enterprises generally obtain their information about demand for their products by field service organization, agents’ or travellers’ reports, and wholesalers’ or retailers’ reports.

(ii) Given the above information, many of the enterprises believe that they can make a reliable estimate of demand.

(iii) Many of the enterprises divided their products into price classes which were roughly associated with income groups within the community; these price classes are somewhat discontinuous.

(iv) Most of the enterprises found that varying their prices by 5% above or below the price in the market would not affect sales; but variations greater than this would, and a 10% variation would have a significant impact on sales.

(v) Enterprises changed their prices between pricing periods, generally because of a change in costs.

(vi) Resistance to price changes can come from wholesalers, retailers, or customers; common price-fixing agreements deter price changes, especially price cutting.

(d) Mark-up for profit and profit policy

(i) $r$ will generally vary among the enterprise’s products based on competitive pressures being faced by that product.

(ii) $r$ is generally set on costs and is not designed to produce a specific rate of return on capital assets.

(iii) Some enterprises varied $r$ from pricing period to pricing period in response to changes in competitive pressures.

(iv) When deciding the amount of profits to be distributed as dividends, most enterprises took into account the amount of finance needed for expansion; most enterprises desired to finance their expansion internally.


(1) Business.

(2) Survey.

(3) Not stated.

(4) Manufacturing enterprises.

(5) (ATC) $(1 + r) = price$

(6) (ATC) $(1 + n) = price$

where ATC is average total costs determined at normal capacity utilization:

$r$ is a mark-up for a fair margin of profit; and

$n$ is a mark-up for profit for a fair return on investment.

(a) The percentage mark-up is tempered by competition, especially when the business enterprise is a price follower and/or small compared with its principal competitors.

(b) When raw materials, whose prices continually fluctuate, represent the principal cost of doing business, the business enterprises will base their prices upon the replacement cost of the raw materials.

(c) If the product is perishable, the business enterprise will eventually have to sell it at any price.

(d) Trade practices, in terms of customary discounts given to distributors and retailers and traditional price levels expected by consumers, will affect the determination of the price.

(e) The basis for estimating ATC, depending on the circumstances of the business enterprise, will be probable future costs, most recent historical costs, or standard costs.

(f) Normal output may be based upon an average expected output for a ten-year period with due consideration to the business cycle and to increased capacity.


(1) Business.

(2) Not stated.

(3) Ninety-eight.
(4) Manufacturing enterprises.

(5) \[ \frac{\text{ADC}}{1 + g} \times \frac{1 + r}{1 + z} = \text{price} \]
\[ M + W (1 + g) = \text{price} \]
\[ \text{ADC} (1 + g) (1 + h) (1 + r) = \text{price} \]
\[ \text{AFC} (1 + r) = \text{price} \]
\[ \text{ATC} (1 + r) = \text{price} \]

where ADC is average direct costs;
AFC is average factory costs;
ATC is average total costs;
\[ M \] is the per unit direct material costs;
\[ W \] is the per unit direct labour costs;
\[ h \] is a mark-up for shop expenses;
\[ r \] is a mark-up for overhead costs;
\[ z \] is a mark-up for firm expenses and profit; and
\[ r \] is a mark-up for profit.

(a) \( r \) and \( z \) can vary among product lines and is susceptible to competitive market forces (what the market can bear, although few enterprises do know what the market can actually bear).

(b) Changes in average direct costs will result in changes in the price.

(c) In some cases, a retail price level is given or a price is considered traditional, and in other cases price followers simply meet the price set by the price leader, so pricing actually becomes a price – cost pricing.

(d) With the same enterprise, \( r \) or \( z \) on custom-produced products would be higher than \( r \) or \( z \) on standard products.

(e) For some products whose direct costs change constantly, they are priced by administering the overhead and profit mark-ups — thus prices change frequently while the overhead and profit mark-ups remain stable for long periods of time.

(f) Price increases are initiated by the market leader, but price declines can be initiated by anyone.

(g) Traditional prices remain unchanged for many years.

(h) Output for costing purposes are based on previous years’ sales and anticipated sales for the current year.

(i) Mark-ups for profit are generally hidebound by tradition both within a given industry and across industries.

(6) 67 enterprises used the pricing procedures and adopted the price policies.


(1) Economic.

(2) Synthesizing existing case studies.

(3) Not stated.

(4) Retail trade — department stores.

(5) \[ \frac{\text{WCM}}{1 + k} = \text{price} \]
where WCM is the wholesale cost of merchandise; and
\[ r \] is the mark-up for overhead costs and profit.

(a) The mark-up is set with reference to the estimated costs of doing an anticipated volume of business and to obtain normal profits.

(b) The mark-up is not uniform among the various commodities.

(c) Once set, prices remained fixed for a period of time, usually for six months (the length of the pricing period) and for a number of sequential transactions.

(6) Wide-spread


(1) Economic.

(2) Personal interview.

(3) Twenty.

(4) Eight large and 12 small manufacturing enterprises.
(5) \( (ATC) \times (1 + r) = \text{price} \)
where ATC is average total costs; and
\( r \) is the mark-up.

(a) Costs were estimated and based on expected level of output.
(b) The mark-up was based largely on convention and was reasonable for long period profits.
(c) The enterprises viewed output and price as unrelated.
(d) The enterprises tried to maintain price stability over the trade cycle.
(e) All firms used the pricing procedures and 18 used the price policy.

(1) Economic.
(2) Case study.
(3) Entire industry.
(4) Gray-iron foundry business enterprises.
(5) Simple pricing procedure:
\( \text{(weight of the rough casting) (2 cents) + time required by the moulder) ($50.00 per day) = price} \)
Complex pricing procedure:
\( \left[ (M + W(1 + g)(1 + h)) \right] (1 + r) = \text{price} \)
where \( M \) is the per unit direct material costs;
\( W \) is the per unit direct labour costs;
\( g \) is a mark-up for shop expenses;
\( h \) is a mark-up for firm expenses; and
\( r \) is a mark-up for profit.

(a) Demand for casting is partially derived from the demand for the buying industries’ products; because the buying industries have sticky prices, a reduction of the price of casting will have no impact on the demand for casting in this context.
(b) In general, the demand for castings is not responsive to price changes, except when the price change is so large that alternative methods to casting become feasible or uneconomic.
(c) The simple pricing procedure was used principally by the small business enterprises; the largest enterprises used the complex procedures.
(d) Many very small enterprises follow the local ‘price leader’ and charge a price slightly below its prices.
(e) The mark-ups to deal with shop and firm expenses are, for many enterprises, based on custom.
(f) The mark-up for profit and prices are modified in an arbitrary manner in light of competition or conditions of production such as maintaining a balanced and efficient production.
(g) Shop and firm expenses are based on a normal volume of output.
(h) Between 1929–1933, the average prices of gray-iron casting declined by 14% while the rate of production declined by 63%.
(i) The gray-iron foundry enterprises did not use marginalist calculations nor is there any recorded evidence that they tried.
(j) The pricing formulas were used by a majority of the business enterprises and had been used since at least 1920.

(1) Economic.
(2) Personal interviews.
(3) Not stated.
(4) Not stated.
(5) \( (ATC) \times (1 + r) = \text{price} \)
where ATC is average total costs or fully allocated costs; and
\( r \) is a mark-up for a fair profit.
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(a) Cost means either actual, expected, or standard cost; actual cost usually means historical cost for the latest available period; expected cost is a forecast of actual cost for the pricing period on the basis of expected prices, output rates, and efficiency; and standard cost is a conjecture as to what cost would be at some normal rate of output, with efficiency at some standard level.

(b) Mark-ups will differ among industries and among firms.

(6) The majority of the businessmen used such pricing procedures.

(1) Business.
(2) Historical analysis of early business records.
(3) One.
(4) Rubber manufacturing enterprise.
(5) \[(ADC) (1 + \nu) (1 + r) = \text{price}\]
where ADC is average direct costs;
\(\nu\) is a mark-up for overhead costs; and
\(r\) is a mark-up for profit.

(a) Costs were based on a given level of output and determined through experimentation.

(b) Price changes were primarily based on cost changes.

(c) Fluctuations in output were not considered a proper basis to change prices.

(d) The yearly rate of return was measured as the ratio of net profits to yearly sales.

(6) The author came to the conclusion that the firm regarded the above pricing procedures and price policies as the norm, and anything else as an undesirable exception.

(1) Business.
(2) A personal account of how a business enterprise sets its price.
(3) One.
(4) Publishing enterprise specializing in scholarly works.
(5) \[(AFC) (1 + z) = \text{price}\]
where AFC is average factory cost; and
\(z\) is a mark-up, which is about 350\%, and is designed to cover firm expenses and to produce a profit.

(a) An estimated print of the book is assumed in order to determine AFC.

(b) Sales are generally independent of prices, especially with regard to price reductions.

(c) Prices are administered to the market via the Net Book Agreement and maintained throughout the time the book is in print.

(d) Mark-ups will vary on different classes of books.

(1) Economic.
(2) Personal interviews.
(3) 21 business enterprises interviewed intensively and many others less thoroughly.
(4) Manufacturing enterprises.
(5) \[(M + W(1 + g))/ (1 + z) = \text{price}\]
where \(M\) stands for per unit material costs;
\(W\) stands for per unit labour costs;
\(g\) is a mark-up to cover factory overhead costs; and
\(z\) is a mark-up for firm expenses and profit.

(a) Printing enterprises used the formula of the Master Printers’ Association, which consists of raw material cost plus an hourly rate for each machine used for the particular job to cover labour and machine charges, plus a gross margin to cover selling, administration and net profit.

(b) A food processing enterprise added a ‘poundage’ to the estimated factory cost to cover packing cost before adding the gross margin.
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(c) The percentage for factory overheads is applied only to direct labour costs because the enterprises believed that factory overheads varied directly with direct labour costs.

(d) Enterprises reduced their prices below those dictated by the pricing procedures if it was necessary to match the lower prices of the price leaders.

(6) All enterprises used the pricing procedures or some variant of them.

(1) Economic and cost accounting.
(2) Personal interviews.
(3) Forty.
(4) Manufacturing enterprises — 36 were large and nationally known and 4 were either small or medium-sized. Two firms were under each of the 20 classifications of manufacturing industries designated in the Standard Classification Manual.

(5) 
\[ \text{ADC} \times (1 + k) = \text{price} \]
\[ \{ADC \} \{1 + k\} = \text{price} \]
\[ \{ADC\} \{1 g \} \{1 + r\} = \text{price} \]
\[ \{ADC\} \{1 + r\} = \text{price} \]
\[ \{APC\} \{1 + z\} = \text{price} \]

where \( ADC \) is average direct costs; 
\( APC \) is average factory costs; 
\( g \) is a mark-up for shop expenses; 
\( k \) is a mark-up for firm expenses; 
\( r \) is a mark-up for profit; 
\( k \) is a mark-up for overhead costs and profit; 
\( z \) is a mark-up for firm expenses and profit; and 
\( t \) is a mark-up for firm expenses and profit which would return a target rate of return on capital.

(a) 17 of the enterprises based their costs on normal capacity utilization and 14 of the enterprises based their costs on expected production or sales.

(b) 30 of the enterprises modified their mark-up for profit in light of competitive conditions; while 4 of the enterprises did not modify their mark-up for profit when setting the price.

(c) 37 of the enterprises have a knowledge of product costs for pricing purposes.
(d) All the enterprises based depreciation on historical costs (so as to be in accordance with the law).
(e) Of those enterprises which expressed the opinion, 14 stated that sales were unresponsive to price declines, while nine stated that sales were responsive to price declines.
(f) The enterprises varied \( r \), \( k \), \( z \) and \( t \) across their product in light of prevailing competitive conditions.
(g) Only two of the enterprises used target rate of return pricing procedures.
(h) Some enterprises noted that they desired to maintain the same selling price for their products for an entire year; other enterprises noted that price stability for their industry was encouraged by their national trade association.

(1) Economic.
(2) Questionnaire.
(3) Twenty-three.
(4) 22 manufacturing enterprises and 1 wholesaler.

(5) \[ \text{ADC} + \text{AOHC} (1+r) = \text{price} \]

where \( ADC \) is average direct costs estimated at a predetermined level of output;
\( AOHC \) is average overhead costs estimated at a predetermined level of output; and
\[ r \] is a mark-up for profit.

(a) The predetermined level of output is based on full capacity, average of the
experience of the corresponding month in the past three years, or a forecast of what can be sold.

(6) More than half of the firms used the pricing procedures.

(1) Economic.
(2) Questionnaire and personal interview.
(3) One hundred.
(4) Manufacturing enterprises of which 30 were small, 50 medium, and 20 large.
(5) \[(W + M (1 + \nu)) (1 + r) = \text{price}\]
   where \(W\) is average direct labour costs;
   \(M\) is average direct material costs;
   \(\nu\) is a mark-up for overhead costs; and
   \(r\) is a mark-up for profit.
(a) This pricing procedure was reported by one manufacturing enterprise.
(b) 74 of the enterprises consider price stability to be good.
(c) The enterprises establish pricing policies to ensure their survival — the policies included those which promoted the long run welfare, set prices to meet changes in economic conditions, and adopted prices to fit individual competitive situations.
(d) The enterprises based their price policies on competitive conditions and cost analysis, and a reasonable return.
(e) The majority of the enterprises would maintain their price policies in a depression.
(f) 80 of the enterprises believed that there are other factors, such as quality, style, and service, which are more important than price in marketing strategy.
(g) The majority of the firms used the pricing procedures and adopted one or more of the price policies.

(1) Economic.
(2) Requisitioning information from enterprises, trade associations, and individuals, and holding hearings.
(3) 12 trade associations and their 70 member enterprises.
(4) Manufacturing enterprises.
(5) \[(M (1 + r_1) + CC (1 + r_2) = \text{price}\]
   where \(M\) is average direct metal costs
   \(CC\) is conversion costs which includes all the wage, material, overhead and shipping costs incurred in converting the metal to a specific product;
   \(r_1\) is the mark-up for profit on metal costs; and
   \(r_2\) is a mark-up for profit on conversion costs.
(a) \(r_1\) and \(r_2\) can change and vary across trade associations and hence products, and therefore within the same enterprise.
(b) All trade associations change their prices when metal costs change, although there is an agreed minimum for these changes.
(c) The trade associations review their costs of specific products for pricing purposes, ranging from every three months to once in three years.
(d) Prices of metals themselves are not controlled by the trade associations, and metal costs represent from 60% to 70% of the price.
(e) Sales of products are not responsive to price changes; demand for the industry output is greatly influenced by armament production.
(f) Because of the vast number of products, the trade associations set prices by establishing a basic price of a basic product and then add extras to the price when a product that deviates from the basic product is desired.
(g) Price affects substitution with other metals.
(h) All trade associations fixed minimum prices for their members; some of the associations have been doing so for 15 to 32 years.
(i) The trade associations have provisions to allow members to quote prices lower than the set minimum prices when needed to meet competition; in general, all prices and
other concessions are administratively determined and applied to the market.

(j) Non-Members frequently observe the minimum prices set by the trade associations.

(k) Most of the associations stipulate, in contrasts with middlemen, that on re-sale the prices must not be less than those quoted by association members.

(l) Some of the associations had a quota scheme backed by a pool payment scheme as a way to ensure that business was shared among their members.

(m) For one trade association, its minimum prices were set in light of the prices set by a non-member enterprise.

(n) Prior to 1940 regarding international trade, the imports of many products were regulated by a quota system; this regulation of international trade was re-established after the war complete with an international price list.

(o) Reacting to potential competition from customers, trade associations have given special prices to large users, given special consideration to the price of certain products sold largely to potential competitors and by supplying non-standard specifications at less than the cost of producing them would justify.

(6) All the trade associations and enterprises investigated used the above pricing procedures and price policies.

20) **Cook, A.C., Duffy, N.F., and Jones, E.H. 1956: Full cost pricing in the multi-product firm. The Economic Record 32 142-47.**

(1) Economic — the principal question of the investigation was if, in the multi-product business enterprise, the price for each product is fixed according to the degree of competition in the particular market, does this mean that the full cost principle is not adhered to?

(2) Personal interview.

(3) Twelve.

(4) Multi-product manufacturing enterprises.

(5) *(APC)* \((1 + r) \cdot \text{price}*

where *APC* is average factory costs; and

\[ t \text{ is a mark-up to cover firm expenses and for profit which would return a desired target rate of return on capital.} \]

(a) The enterprises desired a specific mark-up on the whole of their output and this mark-up was called the standard mark-up.

(b) The standard mark-up is calculated on standard or normal output.

(c) The standard mark-up is calculated so as to provide the firm a reasonable level of profits and a specific target rate of return over time.

(d) The factors which determine the target rate of return or standard mark-up include goodwill, preserving market share, amount of profit needed to pay a reasonable dividend, potential competition, and the need to finance a desired growth rate of the enterprise.

(e) The standard mark-up and the actual mark-ups in the various product lines are administered to the market and can only be changed by administrative action.

(f) The actual mark-up for each different product line may differ from the standard mark-up but as a group they varied around the standard mark-up so as to ensure that the enterprise will achieve its target rate of return.

(g) The deviation of the actual mark-up in a specific product line from the standard mark-up is generally due the specific characteristics of the market, the degree of market competition, and the level of capacity utilization.

(h) The manufacturing enterprises did not attempt to maximize short-period profits or use short-period or long-period marginal costs and revenue to calculate prices or to maximize profits.

(6) All 12 enterprises used the above procedures and policies.


(1) Economic.

(2) Requisitioning information from enterprises, trade associations, and individuals, and holding hearings.

(3) A single trade association — the Hard Fibre Cordage Federation.
(4) Manufacturing enterprises.
(5) \( M + CC + cm = \text{price} \)

where \( M \) is average direct material costs;

\( CC \) is the weighted average of conversion costs figures which contains average direct labour costs and overhead costs of individual business enterprises; and

\( cm \) is the costing margin for profit.

(a) The magnitude of \( cm \) is affected by relative costs and actual stocks of different fibres, the previous relationship between the prices of particular sizes, the market conditions relating to the various products, and the possibility of foreign competition.

(b) The prices for binder and bale twines are fixed for the season while output is left to fluctuate.

(c) Prices are of standard products which are not necessarily the actual products sold.

(d) Prices are fixed so as to be fair and reasonable and so that the average manufacturer does not go bankrupt.

(e) The enterprises and the trade associations state that a reduction in price does not lead to any increase in demand.

(f) A change in material costs leads to a change in the price.

(g) The rate of profit is felt to be reasonable and is expressed in terms of a percentage of turnover.

(h) The code of the trade association was based on the customary rules observed by the business enterprises in the industry.


(1) Economic.

(2) Requisitioning information from enterprises, trade associations, and individuals, and holding hearings.

(3) A single trade association — the Metal Window Association (MWA) Ltd — with 38 member enterprises.

(4) Manufacturing enterprises.

(5) Pricing as administered by the Ministry of Works, 1946–1952

\[(wATC) (1 + r) = \text{price} \]

where \( wATC \) was a weighted \( ATC \); and

\( r \) was set to give a 10% profit on the selling price.

Decontrolled pricing, post-1952

\[(wADC + wAOHC) (1 + r) = \text{price} \]

where \( wADC \) is weighted average direct costs;

\( wAOHC \) is weighted average overhead costs based on a notional percentage of capacity utilization; and

\( r \) is an 'optimal' mark-up for profits.

(a) \( r \) varies among windows based on the popularity of the window, on the need to recoup overhead expenses which are not properly reflected in the costing of the less popular windows, and on the need to popularize certain windows and so secure the manufacturing advantages of long run.

(b) A change in costs will be reflected in the price.

(c) Some of the enterprises produced for stock, but most planned production in accordance with orders received.

(d) The MWA had a cost determination committee whose function was the preparation of cost information as a basis for price fixing, a price policy committee to deal with matters of broad pricing policy in the light of the findings of the cost determination committee, and a pricing committee to deal with pricing details; consequently, the MWA dealt administratively with the problems of competition and price cutting.

(e) Costing

(i) To determine the \( ATC \) for pricing, the MWA used the weighted \( ATC \) of the three largest producers together with the \( ATC \), similarly weighted, of any enterprise whose \( ATC \) was lower than the lowest of the three; these costs were used in the pricing of 164 windows.

(ii) For 174 windows the \( ATC \) of a particular enterprise was taken as the base.

(iii) The MWA told its members to determine their \( AOH \) at a specific national
percentage of 'optimal' capacity utilization.

(iv) Depreciation was to be based on historical or replacement costs.

(f) **Pricing**

(i) For 48 of the 164 windows, the MWA simply increased the existing price without making any reference to costs.

(ii) For 116 of the 164 windows, the MWA marked up the weighted \( ATC \) to obtain the minimum association price; the mark-up included a margin for profit and a provision for a cash discount.

(iii) For 174 windows, the MWA marked up the \( ATC \) to obtain the minimum association price; the mark-up included a margin for profit and a provision for a cash discount.

(iv) The MWA used 'customary' mark-ups when setting the majority of its prices; but for some window prices the mark-ups used deviated from the customary ones.

(v) The MWA contends that the determination of prices requires judgement and a balance between conflicting considerations (which is why the Price Policy Committee of top management from the member enterprises was appointed) and is not therefore susceptible to a purely mathematical exposition.

(vi) The MWA justification for 'common' price fixing is that they are an essential condition for the achievement of increased efficiency and reduction of costs by the exchange of technical and costing information.

(vii) Many of the independent manufacturers follow the prices set by the MWA.

(g) Competition between wood and metal windows is based on quality, not price.

(h) The MWA had a resale price maintenance arrangement with merchants who sold their windows exclusively.

(i) Prices for rustproof windows did not change from 1952 to 1955: the MWA also did not change prices from 1955 to 1956; and finally, prices for government contracts remained unchanged for the period 1953 to 1955.

(j) For a 12-month period, 7.5% of the sales of members of the MWA were affected by price cutting.


(1) Economic.

(2) Personal interviews.

(3) One.

(4) Manufacturing enterprise, which produces to order.

(5) \[ W + M + AOHC + cm = \text{price} \]

where \( W \) is estimated average direct labour costs;

\( M \) is estimated average direct material costs;

\( AOHC \) is average overhead costs based on the level of overhead costs of the previous year divided by the total number of hours in which machines were either running or being prepared for running in that year; and

\( cm \) is the normal costing margin for profit.

(a) Conditions of production are assumed always to be normal when determining costs.

(b) The estimated selling price always include a normal costing margin which will produce normal profits.

(c) The normal costing margins are administratively determined and are set to produce a target rate of return on the firm's net worth.

(d) The costing margin can vary among commodity lines and over time.

(e) The costing margin is sensitive to competitive conditions and thus can vary between customers and vary pro-cyclically over the business cycle.


(1) Economic.

(2) Personal interviews with questionnaire.

(3) Manufacturing enterprise.

(5) \[ (M + W(1 + v))(1 + r) = \text{price} \]

where \( M \) is average direct material costs;
$W$ is average direct labour costs;
$v$ is a mark-up to cover overhead costs at normal output; and
$r$ is a mark-up for profit.

(a) For many products, the price is a conventional price and, therefore, is given to the enterprise.

(b) $r$ is variable in that, given costs, it must adopt itself to the conventional price, to competitive pressures from other enterprises, and to the possible competition from the enterprise’s own product lines.

(c) The enterprise, in particular commodity lines where it has some latitude in setting the price, will try to set higher than normal profit margins; a normal profit margin is a mark-up which gives a reasonable return on cost.

(d) Prices are maintained for the selling season; hence changes in demand will be met by changes in output.

(e) Lowering the price by simply cutting the percentage mark-up will not increase sales.

(f) Cost changes will result in price changes.

(g) When deciding to produce a new product at a conventional price, a careful estimate of cost is made and quality adjusted so that a fair profit margin will be earned.

(h) Prices are reviewed twice a year, five or six months in advance of the opening of the selling season, and become effective two or three months later.


(1) Economic.

(2) Personal interviews.

(3) Twenty-six.

(4) Garment manufacturers.

(5) \( (ADC) (1 + k) = \text{price} \)

where \( ADC \) is estimated average direct costs; and

\( k \) is a mark-up to cover overhead costs and leave a suitable net profit.

(a) Price allowances permit the fixing of different prices for different classes of customers; the allowances are established by industry customs and through past dealings of the particular manufacturers with their customers.

(b) The mark-up only generates a ‘fair return’.

(c) The pricing objectives of the manufacturers included a ‘fair return,’ survival, share of market, and breaking into a market.

(d) Most of the manufacturers had the policy of meeting competitors’ price reductions.

(e) Prices are modified in order to meet existing market conditions, namely retailers’ demands that their traditional mark-ups be maintained, competitors’ actions, and the threat of potential competitors.

(f) All the manufacturers used the pricing procedures as their basic pricing procedure. However, in very particular circumstances they will use other pricing procedures.


(1) Economic.

(2) A personal account of how an enterprise sets its prices.

(3) One.

(4) Manufacturing enterprise in the clothing industry.

(5) \( \text{Pre-war} \ [M + W] (1 + k) = \text{price} \)

\( \text{Post-war} \ [(M + W) + vW] (1 + r) = \text{price} \)

where \( M \) is average direct material costs;

\( W \) is average direct labour costs;

\( k \) is mark-up to cover overhead costs and produce a profit — it is derived from the most recent financial accounts;

\( v \) is a mark-up for overhead costs — it is derived from the accounts from the most recent financial year; and

\( r \) is the mark-up for profit.

(a) In the majority of cases, the prices set by the pricing procedures will be the actual selling price.
(b) A price lower than the price set by the pricing procedures may be offered to a buyer to prevent the buyer from going elsewhere and to maintain an uninterrupted supply of the firm's goods to the buyer's shops.

(c) Price reductions will be made if based on direct cost reductions.

(d) Actual prices lower than the prices set by the pricing procedures will be offered in times of bad trade, but the lower price has not significantly increased sales.

(e) Actual prices above the prices determined by the pricing procedures will not be set simply because demand has increased.


(a) Business.

(b) Survey.

(c) One hundred and fifty-five.

(d) Manufacturing enterprises.

(e) \((ATC) (1 + t) = \text{price}\)

\(t\) is a mark-up for profit which would return a desired rate of return on capital investment.

(a) The manufacturers keep their prices stable and as low as possible in order to expand their markets.

(b) The pricing of new products is the same as for old products.

(c) The manufacturers try to adhere to the established and published price list.

(d) Many manufacturers noted that their price policies were tempered by competition.

(e) 30% of the manufacturers reviewed their prices on a periodic basis, whereas the other 70% carried out 'continual,' 'frequent,' or 'whenever necessary' reviews.

(f) Widespread among the enterprises surveyed.


(a) Business.

(b) Interviews with a questionnaire.

(c) Sixty-nine.

(d) Manufacturing, distributing, wholesale and retail enterprises.

(e) \(\text{cost} + \text{cm} = \text{price}\)

\(\text{cm}\) is the costing margin for profit.

(a) The desired costing margin is either set independently of competitive conditions or is set in light of competitive conditions.

(b) A change in labour and material costs are the basic causes for a change in price, followed by overhead and general sales administration costs.

(c) A change in price can also come about by the need to alter the desired costing margin because of changes in competitive conditions or in the needs for profits, or to achieve a particular rate of return.

(d) Prices and the costing margin are set by individuals or committees with the enterprise.

(e) Those enterprises using distribution channels considered the distributors' mark-ups when setting prices and set suggested list prices.

(f) 36% of the enterprises said that they decided on the price and made a product to fit it.

(g) 68 of the business enterprises used the pricing procedures and adopted the price policies.


(a) Economic.

(b) Interviews and questionnaire — the focal points of the questionnaire were the degree of competition facing the enterprise, the enterprise's growth rate, and the enterprise's source of finance.

(c) 876.
(4) Small and medium size manufacturing enterprises.
(5) \( (\text{ADC}) (1 + k) = \text{price} \)
where \( \text{ADC} \) is average direct costs; and
\( k \) is a mark-up for overhead costs and profit.
(a) 50% of the enterprises had the same mark-up for all product lines and 50% did not.
(b) Slightly more than 50% of the enterprises said that the mark-up for a specific product
line was altered from time to time.
(c) 22% of the enterprises said they never reduced their mark-ups, while the rest said
they did on specific occasions, such as to get a large order or new customers. This
behaviour was unrelated to enterprise size, but was somewhat related to the
perceived strength of market competition.
(d) 72% of the enterprises would not immediately raise prices in response to a rise in
wages. This behaviour was related to type of work and somewhat related to length of
the order book.
(6) Nearly 85% of the enterprises used the pricing procedures. Enterprise size, type of
work, or strength of market competition did not affect the kind of pricing method an
enterprise decided to employ. Variability of the mark-up was slightly more common
in the larger enterprises.

Leicester: Leicester University Press.
(1) Economic.
(2) Personal interview.
(3) Twenty-seven.
(4) Hosiery manufacturers.
(5) \( (\text{ATC}) (1 + r) = \text{price} \)
where \( \text{ATC} \) is average total costs; and
\( r \) is a mark-up for profit.
(a) Average total costs are estimated before production commences.
(b) The determination of the mark-up varied among the manufacturers: for some who
were unaffected by competitive conditions, a 'standard mark-up' was applied
uniformly to all product lines; for others who were also unaffected by competitive
conditions 'standard' but differential mark-ups to the various product lines; and
finally for some of the manufacturers, the 'standard' mark-up applied to each product
line was modified in light of the current competitive/demand conditions, thus the
mark-up varied among their product lines.
(c) The manufacturers reviewed their prices before each 'season' (e.g., twice a year
before the spring and autumn seasons), but once set, the prices remain fixed for the
'season' and therefore are unaffected by fluctuations in sales during this time.
(d) Price changes can come about at the end of the season if costs or competitive
conditions have changed.
(e) The manufacturers expected to sell less at a higher price than at a lower one, but
none had attempted to estimate the precise relationship between the level of demand
and the level of price.
(f) If a particular line of hosiery was selling, the manufacturers would not increase the
price, but rather would gear their production to make the most of the brisk demand.
(g) For some manufacturers, the 'standard' mark-up was related to a longer-period
assessment of market possibilities.
(6) 24 of the manufacturers used the pricing procedures.

enterprise in a competitive system. Washington, DC: The Brookings Institution. Kaplan,
(1) Economic.
(2) Field-studies based personal interviews.
(3) Twenty-eight.
(4) Large industrial enterprises.
(5) \[ ADC \] \[ 1 + k \] = price
\[ SATC + cm = price \]
\[ ATC \] \[ 1 + r \] = price

where \( ADC \) is average direct costs;
\( ATC \) is average total costs;
\( SATC \) is standard average total costs;
\( cm \) is a margin for profit;
\( k \) is a mark-up for overhead costs and profits; and
\( r \) is a mark-up for profit which would return a target rate of return on capital.

(a) Normal capacity utilization used in determining costs was assumed to be 80%.

(b) Mark-ups for profit and target rates of return

(i) For all enterprises they will vary among products, product lines, and geographically depending on competition, product design, estimated economic worth to the buyer, historical/custom reasons, particular characteristics of the market, newness of the product (new products could have higher mark-ups and older products have lower mark-ups), prices of substitute materials, whether the product is a by-product or a principal product, whether the product is an intermediate product or end product, and whether the enterprise is carrying out a strategy of market penetration with some of its products and not with others.

(ii) For International Harvester, the mark-up on a product must generate enough profit to pay for its development within a specified period of time, usually 3 to 10 years; in general, for many enterprises, especially the chemical enterprises, mark-ups for profit should be high enough to permit internal financing of plant expansion and improvement, technical development and improvement, and research and development into new products.

(iii) US Steel increased its average costing margin to cover increased depreciation and replacement costs.

(iv) For A & P many of its costing margins and mark-ups are customary or 'standard'.

(v) For some enterprises, the mark-up or target rate of return for a new product line is influenced by the amount of research and development and investment that has gone into it; the mark up may also be affected by the pay-back period adopted.

(c) Pricing procedures

(i) Some enterprises revise their \( SATC \) to include the higher capital cost of new plant and equipment.

(ii) In some cases where an enterprise was facing extreme competitive pressure, it would use incremental cost pricing — i.e., \( ADC \) \( 1 + k \) = price — where the value of \( k \) would be unpredictable.

(iii) In the case of made-to-order established electrical equipment, a handbook containing a wide variety of electrical, mechanical, and design features, and price information is used to build up the price.

(iv) Alcoa's pricing procedures have been the same for the period 1921 to 1955.

(v) The enterprises used pricing procedures as a method through which they could administer their prices to the market; that is, in these enterprises pricing is an administrative activity carried out by a group or committee or business administrators or managers drawn from different departments and levels of management; in the case of Alcoa, the top management decides the prices of new products, and then lets the subsequent price modifications be carried out by lower level personnel.

(vi) For new consumer products, market surveys and pricing experiments are carried out to find the right market price which everybody accepts, and then the product is produced and costed within this context — price minus costs pricing.

(d) Pricing policy

(i) In booms US Steel charges the list price, but in recession follows price cuts.

(ii) Many enterprises noted that prices for some products were restricted to
hierarchical price classes, traditional mark-ups, and price points.

(iii) Pricing to achieve a target rate of return on investment — many enterprises achieved this by mixing high and low mark-up products together so that the average mark-up would produce the desired target rate of return; thus many products do not have strict target rates of return.

(iv) Stabilization of price and profit margins — most enterprises accept this policy but to relatively different degrees.

(v) Pricing to maintain or improve market position — this includes pricing for market penetration.

(vi) Pricing to meet or follow competition.

(vii) Pricing subordinated to product differentiation because the enterprise was associated with many different products.

(viii) All the enterprises adopted more than one of the above pricing policies, but only one will be dominate at any one time; however, over time the dominant pricing policy can change due to court antitrust rulings and changes in the competitive market environment. This means that the enterprises cannot be characterized by a single all encompassing behavioural motive.

(ix) Some prices are administered but without using a cost-plus pricing formula and held for long periods of time — perhaps in the context of stable market shares.

(x) Product mix affects pricing strategies and tactics (such as full-line pricing); it may also have an affect on costing procedures used by the enterprise.

(e) Profit policy

(i) US Steel does not try to maximize short-term or long-term profits; in fact most the enterprises took a long-term view towards profits, preferring not to maximize short-term profits — it seeks fair profits.

(f) Price changes

(i) Some of the enterprises believe that price stability is good for buyers and sellers and that it protects the value of a product in production.

(ii) For many enterprises, the existence of quarterly or yearly contracts helps to hold prices constant.

(iii) Many of the enterprises did not believe that price reductions would result in the sales of their products increasing to any extent.

(iv) Some enterprises will change the price (and the mark-up for profit and/or the target rate of return for the product) of their products over time as the product goes through its life cycle; in this case, it may be found that prices of mature products are held steady for long periods of time, while the prices of new products are changed with much more frequency.

(v) For mature products in which their mark-ups have become relatively fixed, a change in costs will result in a change in price; but for new products this is not necessarily the case since the mark-up for profit is not fixed.

(6) Complete.


(1) Economic.

(2) Personal interviews, correspondence, case study, and survey.

(3) Fourteen enterprises were studied closely and, in addition, the largest 100 manufacturing industries were surveyed as to their views regarding their cost-price-output-profit policies.

(4) Manufacturing enterprises.

(5) \[ M + W(1 + g) \] \[ (1 + h) \] \[ (1 + \ell) \] = price

\[ W + M(1 + g) \] \[ (1 + h) \] \[ (1 + \ell) \] = price

\[ M + W \] \[ (1 + g) \] \[ (1 + h) \] \[ (1 + \ell) \] = price

\[ SATC \] \[ (1 + \ell) \] = price

where \( M \) = average direct material costs;

\( W \) is average direct labour costs;

\( g \) is a mark-up for shop expenses;

\( h \) is a mark-up for firm expenses;
SAC is standard average total costs; and
\( r \) is a mark-up for a target level of profits.

(a) The enterprises prefer greater output/sales to lesser output/sales for the sake of
customer goodwill and of the future market which is largely unforeseeable; no
enterprise ever turned down sales because it thought that the theoretical optimum
point for profit maximization had been reached.

(b) The profit policy of all enterprises was not to maximize profits in the short term, but
to earn more in the long-term with the view towards continuous survival and growth;
the enterprises thought in terms of a fair rate of return.

(c) The enterprises used a variety of costing procedures at the same time; for a specific
product the enterprises used the same costing procedures for extended periods of
time, but changes in the procedures do come about, especially when methods used to
allocate overhead costs change.

(d) For all enterprises, prices are predetermined in administrator's conferences and then
administered to the market and managed in light of the enterprises' given price
policies.

(e) The administered price does not vary with short period variations in output.

(f) The enterprises allocated profits to reserves, dividends, and retained earnings.

(g) Complete.

fertilizers.

(a) Economic.

(b) Requisitioning information from enterprises, trade associations, and individuals, and
holding hearings.

(c) 4 business enterprises and 1 trade association.

(d) Manufacturing enterprises.

(e) ICI pricing of nitrogenous fertilizers

\[ \text{ATC} (1 + t) = \text{price} \]

where ATC is average total costs; and

\( t \) is a mark-up for profit which would return a desired target rate of return on
capital employed in the production of a specific nitrogenous fertilizer.

(f) Average total costs are estimates which take account of actual costs in the preceding
calendar year and the first quarter of the current year, of expected changes in the
quantities to be sold, and of any known or expected variations in costs in the ensuing
year.

(g) Capital employed is calculated as all pre-1950 capital assets revalued at 1950 prices
plus post-1950 capital assets valued at historical costs; this amount does not decline
each year via depreciation, although depreciation is dealt with as a cost. This method
of calculating capital employed ensures that the 'real' value of ICI assets are
maintained in the face of rising prices.

(h) Prices are fixed for the whole of the fertilizer year.

(i) Prices are administratively determined and approved at ICI.

(j) The actual selling price deviates from the calculated target rate of return price by less
than 1.5%.

(k) ICI thinks in terms of reasonable profits.

Potash Ltd. pricing of potash

\[ (M + SC + R) (1 + z) = \text{price} \]

where \( M \) is the cost of the potash;

\( SC \) is the estimated average costs incurred in shipping the potash;

\( R \) is the estimated average costs of rebates to specific customers; and

\( z \) is a mark-up to cover firm expenses and for profit.

(a) The cost of the potash is arrived at via negotiations with suppliers.

Fisons pricing of ground rock phosphate and superphosphate

\[ \text{ATC} (1 + t) = \text{price} \]

where ATC is average total costs; and

\( t \) is a mark-up for profit which would return a reasonable rate of return on capital
employed in the entire fertilizer business.
(a) Prices are fixed for the season, except in cases of significant changes in materials costs.

(b) The various allowances which Fisons make to particular classes of buyers are not related to any ascertained saving in cost, and, in particular the allowances on sales of superphosphate to mixers are fixed, partly to encourage them to buy home-produced superphosphate.

(c) Expansion of sales and enlarged technical staff enabled Fisons to hold down costs when wage rates and other costs were increasing.

Other

(a) In some cases, a member of a trade association sets prices and the association accepts them as binding on its members.

(b) British Basic Slag: unground slag is a by-product of steel production so it cannot be costed; changes in the price of basic slag are based on increased production costs, carriage charges, bagging and provision for storage, movement of wages and other costs at the steel works, the need to maintain a differential between the grades, and the prices charged by other suppliers of basic slag.

(c) British Basic Slag which is a joint-enterprise made up of steel enterprises aims at making no greater profits than is sufficient to cover the preference dividends and income tax.

(d) By-product producers of ammonium sulphate will follow the price lead of the producers of synthetic ammonium sulphate.

(e) In 72 months the price of ammonium sulphate changed 8 times, nitro-chalk changed 6 times, single superphosphate changed 9 times, and triple superphosphate changed 9 times.


(1) Economic.
(2) Case study by interview.
(3) 139.
(4) Manufacturing enterprises.

5) \( \text{ATC} \) \( (1 + \ell) = \text{price} \)

\( \text{ATC} + cm = \text{price} \)

\( A(1 + \ell) = \text{price} \)

\( A(1 + v)(1 + \ell) = \text{price} \)

where \( \text{ATC} \) is average total costs;

\( \text{ADC} \) is average direct costs;

\( r \) is a mark-up for profit;

\( cm \) is the costing margin for profit;

\( k \) is a mark-up to cover overhead costs and produce a profit; and

\( v \) is a mark-up for overhead costs.

(a) In some enterprises, \( r \), \( cm \) and \( k \) are rarely changed and are uniform among product lines; in this case they are not based on existing market conditions.

(b) In other enterprises \( r \), \( cm \) and \( k \) can vary among product lines and (slowly) over time because of different degrees of competition in their various markets.

(c) Finally, for many enterprises, \( r \), \( cm \) and \( k \) are historical artifacts of their industry, determined by their trade association, copied from other firms, and/or felt to be reasonable or ethical, especially if sanctioned by the Danish Monopolies Commission.

(d) The enterprises had various objectives, including survival, steady long-term profits which are both the greatest amount obtainable in the long-term and fair and reasonable, greatest possible sales (which leads to greatest profits), and market share modified by profit goal.

(e) The enterprises believed that they faced a vertical price-quantity relationship for a specific band and any price outside the band, above or below it, the price-quantity relationship was horizontal; in addition, the enterprises believed they faced a vertical market price-quantity relationship.
(f) If the enterprise attempts to sell an unknown brand, its price would be set below the price of the brand leader if sales are to materialize.

(g) Large enterprises believe that competitors will react to their price changes, while small enterprises take competitors' prices as fixed; in addition, the enterprises expected competitors to match their price reductions but not necessarily follow their price increases; moreover, enterprises within an industry adopt the same 'traditional' price-structure for their products and thus are reluctant to alter it because they are not sure how their competitors will react; consequently, price stability in the face of output fluctuations emerges because of the fear of competitor reaction and consumer reaction.

(h) One enterprise did not increase their prices by increasing its mark-up in the short term because it would invite entry; other constraints upon the mark-up were the fears of long-term losses and nationalization.

(i) Nearly all industries had tendencies towards price leadership; in addition, trade associations help the leading enterprise to establish a price leadership.

(j) Prices can change with cost changes, leaving the mark-ups unchanged.

(k) When faced with a large competitor, some small firms take the initiative to lower prices when their profits were falling or when they needed funds due to liquidity problems.

(6) The majority of the manufacturing enterprises used one of the two pricing procedures. These pricing procedures are still widely used today in Danish industry, especially among the larger firms. (Bjarke Fog, personal communication, 3 May 1978; and Bjarke Fog, personal communication, 12 August 1981)


(1) Economic.

(2) Case study.

(3) Two.

(4) Launderette shops.

(5) $ATC + cm = price$

where $ATC$ is average total cost based on a normal volume of output; and $cm$ is the costing margin for profit.

(a) The magnitude of the costing margin is such as to give an adequate return on capital.

(b) The costing margin is tempered by the competition of alternative methods of washing, such as domestic washings.

(c) The price is administered for many sequential transactions or washings.

(d) Local trade associations ensure that its members all set the same price.

(e) Given the price, the profit margin increases as more washings take place per week because of declining $ATC$.

(6) Both.


(1) Economic.

(2) Personal interview and case study approach.

(3) 88 small business enterprises.

(4) 28 manufacturers; 26 retailers; 21 service outlets; 6 wholesalers; 5 gardener landscape nurseries; and 2 combined retail and service enterprises.

(5) $W(1 + s) = price$

$M(1 + x) = price$

$WCM(1 + k) = price$

$ADC(1 + k) = price$

$ATC(1 + r) = price$

where $W$ is average direct labour costs;

$M$ is average direct material costs;

$WCM$ is the wholesale cost of merchandise;
ADC is average direct costs;  
ATC is average total costs;  
s is a mark-up for material costs, overhead costs, and profits;  
x is a mark-up for labour costs, overhead costs, and profit;  
k is a mark-up for overhead costs and profit; and  
r is the mark-up for profit.  
(a) Some enterprises used the same mark-up for each of its product lines and the mark-up is not varied over time. 
(b) Other enterprises used different mark-ups for each of their product lines and the mark-up is not varied over time. 
(c) Some enterprises varied the mark-up over time. 
(d) Enterprises set mark-ups which will give them a fair or reasonable profit and not maximum profits; many enterprises had an ethical objection to trying to make as much profit as possible. 
(e) Many enterprises pay attention to the prices of competitors and other pressures from the demand side; they also pay attention to goodwill and its long term impact on prices. 
(f) Mark-up differentials on product lines within an enterprise are based on custom or the suggestions of outside parties. 
(g) Many enterprises believed that sales would decline if prices were raised, while a reduction in price would not increase sales at all. 
(h) Enterprises set prices which they do not alter for periods of time, in some cases up to a year. 
(i) 61 of the enterprises used the pricing procedures and pricing policies; many of the firms that did not use the above pricing procedures were also the same firms that had no idea of what their costs were.

(1) Economic. 
(2) Questionnaire and personal interview. 
(3) 120. 
(4) Small manufacturing enterprises. 
(5) The investigation did not delineate pricing procedures per se; however, it did provide evidence on the price policies adopted by manufacturing enterprises. 
(a) The main pricing policy was to promote the enterprises' long-run welfare; other policies included adapting price to fit individual competitive situations and having a set and systematic method of pricing products. 
(b) Enterprises would maintain their basic price policy over the business cycle. 
(c) Enterprises base their price policies on a reasonable return on investment, cost analysis, and competitive and cost analysis. 
(d) Enterprises attempt to keep prices constant and consider price stability to be good. 
(e) The majority of the enterprises maintain their prices for six-months or longer. 
(f) Taxation had no special impact on pricing policy; it was viewed as just one of many factors to be considered when setting a price. 
(g) Enterprises will change their prices in response to cost changes. 
(6) The majority of the firms adopted one or more of these price policies.

(1) Economic. 
(2) Personal interviews and questionnaire. 
(3) One hundred and three. 
(4) The business enterprises were from the furniture, paint, and woodpulp industries. 
(5) \( ( SC ) (1 + r) = \text{price} \) 
where \( SC \) is standard costs; and  
r is the mark-up for profit. 
(a) Standard costs are estimated before production and are based on a standard (or normal) capacity utilization.
(b) $r$ varies among commodity lines in response to competitive pressures and firm objectives.

(c) In the wood pulp industry the price is set by the price quote for Scandinavian imports, thus making $r$ a complete residual.

(d) Prices are kept stable for a period of time while output is allowed to fluctuate.

(e) $r$ is determined in a manner that would promote the long run welfare of the business enterprise, not to maximize profits.

(f) Business enterprises in the paint and varnish industry did not try to utilize idle plant capacity by lowering prices; it was found that competitors responded by lowering prices to retain market share.

(g) Prices were set by an administrative committee in a majority of the business enterprises.

(h) The business enterprise believes that when setting prices, the corporate tax is passed on to the buyer.

(i) When setting prices, the price setter focused attention on costs, sales, price and net operating income; inventories and unfilled orders were generally not considered by business enterprises in these industries.

(j) All the enterprises used the pricing procedures and adopted the price policies.


1. Economic.
2. Questionnaire and personal interview.
3. 256.
5. $W(1+s) = \text{price}$
   
   $M(1+x) = \text{price}$
   
   $ADC(1+k) = \text{price}$
   
   $ATC(1+r) = \text{price}$

   where $W$ is average direct labour costs;
   
   $M$ is average direct material costs;
   
   $ATC$ is average total costs;
   
   $ADC$ is average direct costs;

   $s$ is a mark-up for material costs, overhead costs, and profits;

   $x$ is a mark-up for labour costs, overhead costs, and profits;

   $r$ is a mark-up for profit; and

   $k$ is a mark-up for overhead costs and profits.

(a) In some cases, $ATC$ consists only of material costs, office expenses, and depreciation, with 'labour costs' coming out of profits.

(b) Because most enterprises were price followers, the mark-ups were varied so as to match the price leader's price.

(c) In setting selling prices, the enterprises' policy was to realize a predetermined percentage on investment, sales, or costs.

(d) Prices are changed in response to changes in the price leader's price, in response to cost changes, and in response to competition.

(e) In some cases enterprises simply adapted their competitors' prices in the belief that they will yield the desired rate of return on costs or sales.

(f) The majority of the manufacturing enterprises generated enough retained earnings to replace and buy additional machinery; the enterprises could also get long-term capital funds from conventional financial institutions to undertake minor and major expansions.

(g) More than 80% of the manufacturing enterprises used the pricing procedures and maintained the price policies.


1. Economic.
2. Personal interview, questionnaire, and the use of company documents.
3. Seven.
4. Small and medium size business enterprises.
(5) 

\[
\frac{\text{ADC}}{1 + v} [1 + r] = \text{price} \\
\frac{M + W(1 + v)}{1 + r} = \text{price} \\
\frac{M + W}{1 + k} = \text{price} \\
\frac{M + W(1 + g)}{1 + h} [1 + r] = \text{price} \\
\frac{M + W(1 + g)}{1 + z} = \text{price}
\]

where ADC is average direct costs;
M is average direct material costs;
W is average direct labour costs;
v is a mark-up for overhead costs and is historically determined;
g is a mark-up for shop expenses and is historically estimated;
h is a mark-up for firm expenses and is traditional and varies with product;
k is a mark-up for overhead costs and profit;
z is a mark-up for firm expenses and profit.

r is a mark-up for profit.

(a) Prices are reviewed annually, but they may change with less frequency.

(b) When direct costs change, they will be absorbed during the pricing period; but they will produce a change in the price for the following pricing period. Changes in overhead costs will be absorbed by the enterprises until the following year when the enterprise revises its mark-ups for overhead costs based on the past year's accounts. Price changes based on cost changes are easily accepted by customers — this is not so with changes in the mark-up for profit.

(c) Prices are set and maintained for the 'season' or period of time — such as a year; and at this price the enterprise will try to sell as much as possible.

(d) The enterprises maintain their prices in the face of output/sales fluctuations. If sales start declining at the set price, the enterprises step up sales effort, reduce the quality of the product, or start producing new products, rather than reducing their prices.

(e) Price stability is necessary for stability of the business enterprise because price cutting via reducing the mark-up for profit affects the profitability and hence its liquidity; while increasing the price via increasing the mark-up, say when demand conditions are favourable is not, the owners/managers of the business enterprises stated, morally correct and could not be defended before the buyers, hence a lost of goodwill and with it sales.

(f) Objectives

(i) To obtain a comfortable level of business activity through obtaining and maintaining goodwill with a comfortable or reasonable level of profits — there is concern primarily about profits for the upcoming year.

(ii) To obtain moderate profits which will permit steady growth over a long period of time; goodwill is important if this is to occur.

(iii) Survival was of primary concern with most of the enterprises; thus avoidance of loss or liquidity was more important than increasing profits.

(g) All the enterprises believed that price reductions via reducing the mark-up for profit has little if any impact on sales; consequently, they do not adopt the policy of trying to boost sales by through price reduction via a reduction in the mark-up for profit.

(h) Pricing is an administrative activity; and when price reductions are made, say in times of bad trade or price wars, the new prices are administratively determined and a minimum price is assigned to the market.

(i) Each enterprise stated that it did not equate marginal cost to marginal revenue when setting prices or try to maximize profits. Ethical considerations, goodwill, and public esteem combined with competitive pressures, such as competitors not following price increases, would be needed if profits were to be maximized. Therefore, in Barback’s view the neoclassical concepts of the firm demand curve, profit maximization, and equilibrium should be discarded when examining and describing the behaviour of the business enterprise.

(j) k, r and z will be different for different products which the enterprises produces; novel or new products carry higher mark-ups than more standard products; competitive pressures also affect the magnitude of the mark-up that the enterprise places on a product; finally, tradition and reasonableness plays an important part in determining the magnitude of the mark-up. Once the magnitudes of k, r and z are
Part II of Article 3 (Review of Political Economy, 6,3)

established, they will be maintained for long periods of time; however, changes in the magnitude occurs when competitive conditions in the market change significantly, as in the case when a novel product meets similar competitors.

(k) For all the enterprises, costed prices, list prices, and transaction prices were one-and-the-same prices.

(l) The enterprises view prices as short-term concerns, while investment was seen as a long-term concern.

(6) Complete.


(1) Economic.
(2) Personal interview.
(3) Not stated.
(4) Rubber-tyre manufacturing enterprises.
(5) \( (SAFC) (1 + \ell) = \text{price} \)
where SAFC is standard average factory costs; and
\( \ell \) is a mark-up to cover firm expenses and to produce a target rate of return on capital.
(a) \( \ell \) is fixed in light of existing competitive conditions and to obtain a targeted share of the market which is higher than the enterprise's historical market share; other pricing objectives include the stabilization of price and profit margin, and meeting completion.
(b) \( \ell \) will differ for different markets.
(c) In the replacement tyre market, many price changes are effected through altering the discount structure to dealers or by making concessions to large buyers.
(d) The upper limit of the price in the original equipment market is the price at which it would be cheaper for the automobile manufacturer to produce its own tyres or to subsidize plant expansion by one of the smaller tyre firms to produce the automobile company's private label.
(e) Demand for tyres is a function of supernumerary income and need; price has little if any impact on demand.
(f) In the original equipment tyres market, price is reached through a bargaining process; prices in this market are reconsidered every three months.


(1) Economic.
(2) Case study.
(3) Three.
(5) \( (CADC) (1 + k) = \text{price} \)
where CADC is constant average direct costs; and
\( k \) is the mark-up to cover overhead costs and profit.
(a) \( k \) is a rigid mark-up whose value is 2.50.
(b) The enterprises made no estimates of their price elasticity of demand.
(c) Prices are set via contracts for future periods.
(d) As CADC decline, so does the price because of the rigid mark-up.
(e) The pricing practice was adopted by the industry, the author argued, because it reduced the uncertainty as to whether a given technology was likely to be the lowest-cost technology.
(f) All three electronic enterprises.


(1) Cost accounting.
(2) Postal questionnaire coupled with interviews.
(3) 179.
(4) Manufacturing enterprises.
(5) (costs) \((1 + z) = \text{price}\)
   where \(z\) is a mark-up for profit and some overhead costs.
(a) Costs can be average direct costs or average total costs determined at normal or
    standard output which in turn were based on a forecast of capacity utilization for the
    next accounting period, on the utilization figures for the previous accounting period,
    or an average of several previous accounting periods.
(b) The profit part of the mark-up is based on a desired rate of return on employed
    capital; on a desired percentage profit on cost or sales value; or on a desired total
    profit for the year.
(c) The mark-up is not set to maximize profits.
(d) Half the enterprises review their prices yearly, while the others do it more frequently
    or when necessary; thus prices remain unchanged for periods of time and when they
    do change it is in response to cost changes, to changes in competitor's prices, or to the
    need for more or less profits.
(e) The majority of the enterprises varied the mark-ups over their products in accordance
    with the forces of competition and demand.
(6) More than 70% of the enterprises used the pricing procedures and price policies.

44) Howe, M. 1960: Competition and the multiplication of products. *Yorkshire Bulletin of
Economic and Social Research* 12: 57–72; 1961: Account Information and Product
Decisions, in the Multi-Product Firm. Ph. D. dissertation University of Sheffield; 1966: The
restrictive practices court and the definition of the market. *The Manchester School of
Economic and Social Studies* 34: 41–61; 1968: The Iron and Steel Board and Steel Pricing,
(1) Economic.
(2) Personal research, interviews, and government records.
(3) Four trade associations, Iron and Steel Board, and 28 business enterprises.
(4) Manufacturing and retailing enterprises.
(5) Trade association price fixing
   \((ATC)(1 + r) = \text{price}\)
   where \(ATC\) is average total costs; and
   \(r\) is the mark-up for profit.
(a) The average total costs is an average of, say, the six lowest average total costs
    submitted to the trade association, the enterprises could submit either historical or
    standard costs.
(b) \(r\) is a target mark-up on sales or costs and its magnitude is decided by the members
    through discussion and negotiation in the light of their experience of market
    conditions facing the industry as well as their individual profit objectives.
(c) \(r\) and price are insensitive to demand changes over the business cycle.
(d) The individual enterprises in the trade associations set their price by marking up their
    average total costs based on normal output to the point where it equals the price
    established by the trade association.
(e) \(r\) will be different for different kinds of customers, orders, and products.

*Iron and steel board pricing procedures 1953–1956*
\[ATC + tm = \text{price}\]
where \(ATC\) is average total costs; and
\(tm\) is a target margin for depreciation, obsolescence, and profit.
(a) Average total costs was an average of the enterprises' \(ATC\).
(b) The profit element in the target margin was designed to give a reasonable return on
    the average capital employed in the production of the product.
(c) The average total costs and target margin was based on a normal capacity
    utilization.
(d) \(tm\) was uniform across the main product lines and its size was based on the relative
    riskiness of the industry, the prevailing level of interest rates and what was
considered a normal level of capacity utilization over a period of years.

Iron and steel board pricing procedures 1956–1967

ATC + tm = price

where ATC is average total costs; and

tm is a target margin for depreciation, obsolescence, and profit.

(a) Average total costs was that of a new (ideal) plant.

(b) The profit element in the target margin was designed to give a reasonable return on the current valuation of plant and equipment.

(c) Prices were reviewed every two years or so; in between the reviews, prices remained steady, even in the face of demand fluctuations.

(d) The Board varied the tm from product line to product line and over time.

Enterprise pricing procedures

\[ \frac{M + W(1 + g)}{1 + h} \frac{1 + r}{1 + i} = \text{price} \]

\[ M + \frac{CC}{1 + z} = \text{price} \]

\[ (AFC) (1 + h) \frac{1 + r}{1 + i} = \text{price} \]

\[ (ATC) (1 + r) = \text{price} \]

\[ (ATC) (1 + i) = \text{price} \]

where M is average direct material costs;

W is average direct labour costs;

CC is conversion costs which include average direct labour costs and shop expenses;

AFC is average factory costs;

ATC is average total costs;

g is a mark-up for shop expenses;

h is a mark-up for firm expenses;

z is a mark-up for firm expenses and profit;

r is a mark-up for profit; and

i is a mark-up for profit which would return a target rate of return on capital or a target amount of profit.

(a) The average total costs are based on standard or normal output.

(b) Pricing procedures

(i) To obtain information on sales, many of the enterprises use past sales data and length of order book.

(ii) Many of the enterprises were parties to trade associations or other common pricing agreements and the types of pricing procedures found in these agreements are as follows:

\[ \frac{\text{[ideal costs]}}{1 + r} = \text{price} \]

[an average of the ATC of some/all the enterprises in the market] \[ 1 + r = \text{price} \]

price arrived at by negotiation.

(iii) When faced with a variety of products slightly different from the basic product, many enterprises either price the basic product and apply that price to the slightly different products or establish an 'extras system' based on the basic price to price the different products.

(c) Pricing policy

(i) 20 of the enterprises set ideal prices before modifying them in light of competition; while 3 enterprises simply follow prices set by other enterprises; and finally, 3 enterprises negotiate prices.

(ii) For new products, some enterprises prefer to have a low price as to a high price so as to discourage competition.

(iii) A price structure for competitive products produced by an enterprise tends to make for price stability since a change in one product's price means that all prices have to change, even if costs did not change.

(d) Price changes

(i) Prices are increased when input prices have increased.

(ii) Many of the enterprises do not increase their prices via increasing r or i when sales are high because it could adversely affect its long term position — its
customers could see it as a profit-grabber.

(iii) Most enterprises, especially those associated with common pricing agreements, maintained prices in the face of falling demand because prices set by the above pricing procedures were seen as the Right price.

(iv) Financial crisis sets off price-cutting by an enterprise.

(v) For many of the enterprises, they find that prices in the market can be slightly different without affecting their sales, but the prices cannot be too different from each other.

(e) Profit objectives

(i) Profit objectives relate to a period of time longer than a single planning period.

(ii) The enterprises held the following primary profit objectives.

- Maximum rate of return on capital employed, but which must be consistent with maintaining proper standards of remuneration, working conditions, and business ethics (3 enterprises).
- Target rate of return on capital employed (7 enterprises).
- Maximum aggregate long term profits (6 enterprises).
- Reasonable (historical) target aggregate long term profits which is expressed as a ratio of profits to sales (2 enterprises).
- Reasonable aggregate long term profits, but no profit target (3 enterprises).
- Increased aggregate profits compared with previous year (3 enterprises).

(iii) The enterprises also held secondary objectives, such as maintaining market share (sometimes in co-operation with other enterprises) and keeping the enterprise full of work.

(iv) The magnitudes of the target rates of return for many of the enterprises are historical/conventional; hence $t$ (and $r$) is historical/conventional as well.

(v) Many of the enterprises seek stable profits and stable growth through product multiplication; this tendency is further reinforced if legal constraints prevent the enterprises from seeking growth and profits in existing markets and industries.

(vi) Many of the enterprises want to finance investment with internal funds and not rely on the capital markets.

(vii) For some enterprises they portion their planned profit into two parts — one to cover the replacement cost of plant and equipment when depreciation is based on historical cost, and a second portion to cover dividends, interest charges, and investment; other enterprises divide their profits into investment funds and dividends and the dividends portion is whatever is leftover after the decision on investment funds is made.

(f) Mark-ups for profit

(i) 20 of the enterprises work with a historical/conventional $r$ or $t$ when setting prices; however, once the 'normal' price is set and then compared with the competing market prices, the enterprises modify costs and $r$ and $t$ accordingly.

(ii) Because the enterprises see $r$ and $t$ as conventional for the industry/market they are reluctant to alter it even if their prices are out-of-line with their competitors; rather, they will first try to lower costs, but if that fails, $r$ and $t$ will be altered or the enterprises will simply not produce the product.

(iii) $r$ and $t$ are affected by competition, age of product, desire to retain markets or maintain a full-line of products; consequently, $r$ and $t$ are not uniform across products of an enterprise.

(iv) Many of the enterprises vary $r$ and $t$ around its normal value.

(g) For some enterprises, product differentiation is based on different income groups.

(h) Many of the enterprises maintain stable dividend payments over long periods of time.

(6) Complete.


(1) Economic.

(2) Personal interviews based on a questionnaire.
(3) Twenty-nine.
(4) Electrical and mechanical engineering enterprises.
(5) Pricing in the home market
\[ \text{ATC} (1 + r) = \text{price} \]
where ATC is estimated average total costs based on a standard rate of production; and
\[ r \] is the mark-up for profit.
(a) 41 products were covered in which 27 had list prices and 14 individual quotations.
(b) Price setting involved setting a minimum price and then discovering the maximum
which can be extracted from the market; if the minimum price is greater than the
maximum market price, then the enterprise would not enter the market.
(c) Of the 27 list prices, 15 were calculated using a traditional margin and 12 using a
margin based on a more or less intuitive assessment of market conditions at the time
when each order is negotiated; and of the 14 quoted prices, the margin was
determined by an assessment of current market prices.
(d) Prices were reviewed annually by many of the enterprises and many of the
enterprises do not change their prices between reviews; an increasing inflation rate
did cause some firms to review their prices more frequently.

Pricing in the export market
\[ \text{ATC} (1 + r) = \text{price} \]
where ATC is estimated average total costs based on a standard rate of production; and
\[ r \] is the mark-up for profit.
(a) In the home market, the enterprises were opposed to setting a price below ATC;
however, in the export market, 9 enterprises were prepared to consider it and if
necessary accept prices less than ATC.
(b) No enterprise mentioned any beneficial effect from the 1967 devaluation.
(c) With devaluation, of the 41 products, the prices of 12 increased by the amount of the
devaluation, and the rest did not; the differential responses were based on competi-
tive pressures in the export market and on cost pressures.
(d) The majority of the enterprises made the same response when the pound floated
downward in 1972.
(e) Complete.

Research Limited.
(1) Business.
(2) Postal questionnaire.
(3) 220.
(4) Manufacturing enterprises.
(5) \[ (ADC) (1 + k) = p \text{ or } ADC + gem = p \]
\[ \text{ATC} (1 + r) = p \text{ or } ATC + cnn = p \]
where ADC is average direct costs;
ATC is average total costs;
\[ k \] is a mark-up for overhead costs and profits;
\[ r \] is a mark-up for profit;
\[ gem \] is the gross costing margin for overhead costs and profits; and
\[ cnn \] is the costing margin for profit.
(a) Enterprises used more than one kind of costing and pricing procedure.
(b) For industrial selling, price lists often exist as a basis for discounting rather than as
prices that customers in general are expected to pay.
(c) The majority of the enterprises modify their prices based on non-cost
considerations.
(d) There is significant variation in mark-ups and costing margins between product lines
sold by a single enterprise and this is widespread among enterprises.
(e) The majority of the enterprises believe that the effective price range for their
industry, defined as the percentage by which the highest competitive price exceeds
the lowest, is below 20\%. 
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(f) In industrial marketing, virtually no use is made of price as a specific plus feature; however, for most enterprises, price is an important variable in marketing strategy.

(g) Most enterprises change their prices in response to cost changes; enterprises also change their prices when greater profit is required.

(h) Most enterprises regularly review their prices to keep them in line with costs and/or profit margins required.

(i) Most enterprises pass on their price changes through changes in list or tender prices.

(6) Over 85% of the enterprises used the costing and pricing procedures.


(1) Economic.

(2) Personal interviews.

(3) Fifty-two.

(4) Industrial enterprises.

(5) \( (ADC) \) \((1 + k) = \text{price} \)

\[ \begin{align*}
\text{(costs)} (1 + r) &= \text{price} \\
\text{(costs)} (1 + i) &= \text{price}
\end{align*} \]

where \( ADC \) is average direct costs;

\( k \) is a mark-up for overhead costs and profit;

\( r \) is a mark-up for profit; and

\( i \) is a mark-up for profit which would return a target rate of return on capital or a target level of profits.

(a) The enterprises set prices which were insensitive to short-term demand fluctuations through time and between countries.

(b) \( k, r \) and \( i \) were modified in light of competitive market conditions and in light of reactions by overseas distributors; mark-ups differed among products.

(c) With regard to devaluation, some enterprises passed it through completely, while others only partially, and others not at all; the degree of pass-through depended on competitive conditions, on the desire to maintain goodwill with buyers for the sake of the future, and on the desire to obtain increased sales as opposed to increased profits.

(d) Some enterprises would only change prices in response to cost changes.

(e) While the enterprises mentioned the possibility of potential competition, only two stated they set their prices at the level which they estimated that potential competitors could put their product on the market.

(6) 50% of the firms used the pricing procedures and adopted the pricing policies.


(1) Economic.

(2) Questionnaire-interview approach.

(3) 60.

(4) 20 small electrical engineering business enterprises and 40 small mechanical engineering business enterprises.

(5) \( (\text{production costs}) (1 + k) = \text{price} \)

\[ \begin{align*}
(\text{production costs}) (1 + r) &= \text{price} \\
(\text{production costs}) (1 + i) &= \text{price}
\end{align*} \]

where \( k \) is a mark-up for overhead costs and profit; and

\( r \) is a mark-up for profit.

(a) Production costs are estimated.

(b) Prices are held constant for periods of time, but over time they varied as internal and external conditions changed; similarly some firms held mark-ups constant for a period of time, but varied them over time.

(c) Conversely, output is left to vary in the short term in response to current demand; the enterprises do not adopt an output determination policy, i.e. consciously to raise or lower their output in the short term in an attempt to optimize sales, profits, or costs.
(d) Some enterprises applied different mark-ups to different products.
(e) 63% of the enterprises adjusted their prices no more than every 12 months; another
8% adjusted their prices every six months.
(f) Many of the enterprises felt that marginal adjustments in price (net of inflation)
would not affect sales, but large adjustments would; a 10% change in price would result,
the enterprises believed, in a 5% to 20% change in sales in the short term and
a 7.5% to 30% change in sales in the long term.
(g) There was no evidence that the enterprises used entry-forestalling pricing.
(h) 85% of the enterprises do not pursue 'price flexibility' in the short term, but prefer to
keep prices constant.
(i) 97% of the enterprises have no link between pricing and investment; thus there is no
link between investment and the magnitude of the mark-up. In addition, 90% of the
enterprises do not link investment with increasing output — they do not deliberately
undertake output expanding/diversifying investment projects.
(j) Mark-ups were set, in general, by convention and to get a 'fair and reasonable return
on assets' or 'the traditional industry concept of a fair return.'
(k) The enterprises preferred to use their own funds for investment purposes and
external finance was generally avoided.
(l) The principal goals of the enterprises were satisfactory profits, survival, sales growth,
and customer satisfaction; while the measure of success was seen as survival, good
reputation, good profit record, and growth.
(m) The enterprises believed that cost-plus pricing would result in their profits being
'maximized in the long run.'
(n) 98% of the enterprises do not estimate or forecast demand.
(6) All.

(1) Business.
(2) Not stated.
(3) One.
(4) Manufacturer.
(5) \[ M + (CC)(1 + z) = \text{price} \]
where \( M \) is average direct material costs, which include handling and storage costs;
\( CC \) is conversion costs which include average direct labour costs and shop
expenses; and
\( z \) is a mark-up (or firm expenses and profit).

50) Gordon, L.A., Cooper, R., Falk, H. and Miller, D. The Pricing Decision. New York City:
(1) Accounting.
(2) Questionnaire and interviewing.
(3) 44—22 American and 22 Canadian manufacturing enterprises.
(4) The enterprises were involved in activities in at least one of the following four
industries: food processing, chemical, transportation equipment, or heavy
equipment.
(5) \[ ADC + AVOHC \quad [1 + z] = \text{price} \]
\[ ATC \quad [1 + r] = \text{price} \]
\[ ATC \quad [1 + t] = \text{price} \]
where \( ADC \) is average direct costs;
\( AVOHC \) is average variable overhead costs;
\( ATC \) is average total costs;
\( r \) is a mark-up for profit;
\( t \) is a mark-up for profit which would return a desired rate of return on capital;
and
\( z \) is a mark-up for profit and fixed overhead costs.
(a) 37 manufacturing enterprises used the full cost method, i.e., costing up to average
total cost; 3 manufacturing enterprises used the variable cost method, i.e., costing
average direct costs and average variable overhead costs; 6 manufacturing enterprises
used both the full cost and the variable cost method; and 8 manufacturing enterprises
indicated that costs did not play an important role in pricing their product lines.

(b) The manufacturers pursued multiple pricing objectives, including total profits, return on investment, market share, and total sales; for manufacturers selling custom-made products, earning a fair return over costs and maintaining trained personnel were key pricing objectives; for manufacturers whose product lines were standard products, the market share was the key pricing objective; and for manufacturers selling highly innovative product lines, the key pricing objective was total profits.

(c) Determinants of the mark-up: the study participants were asked to indicate whether the mark-up on costs was determined by corporate policy, through experience and historical precedent, or on an ad hoc or flexible basis depending on business conditions. Past experience seemed to be the most prevalent way of determining the mark-up, although the majority of the manufacturers used more than one of these methods. One notable exception concerned product lines which were sold in markets where the action of competitors was very difficult to predict. Under such unpredictable conditions, manufacturers usually adopted a flexible and responsible mark-up strategy, depending on existing business conditions.

(d) Most manufacturers said that their mark-ups were adjusted in light of competitive conditions and the obtainability of the pricing objectives.

(e) Sources of market oriented information for making pricing decisions included forecasting, customer preferences and technology, explicit tracking of actions of competitors, routine gathering of opinions of clients, and market research studies which are all internally based within the manufacturing enterprise.

(f) The study found that the pricing decisions made by the manufacturing enterprises could not be explained in terms of the competitive conditions of the markets in which their products were sold.


(1) Economic.
(2) Interviews.
(3) Not stated.
(4) Woollen and worsted manufacturing enterprises.
(5) Pricing by the Blanket Association

\[ M + CC \times (1 + r) = \text{price} \]

where \( M \) is average direct material costs;
\( CC \) is conversion costs which includes average direct labour costs and average overhead costs; and
\( r \) is a mark-up for profit.

(a) The association selected the lowest \( M \) and \( CC \) of its member enterprises and used them as the costs on which to set the price.

(b) The price was a minimum price — members were free to charge a higher price.

(c) No member enterprise had average total costs equalling the association's minimum average total costs.

\[ W + M(1 + v) \times (1 + r) = \text{price} \]
\[ M + W(1 + v) \times (1 + r) = \text{price} \]

where \( W \) is average direct labour costs;
\( M \) is average direct material costs;
\( v \) is a mark-up for overhead costs; and
\( r \) is a mark-up for profit.

(a) Costs were based on normal capacity utilization.

(b) \( r \) was generally stated as 10%, which the manufacturers thought was fair or reasonable or the right mark-up; however the ‘fair’ \( r \) increased during the Korean War and declined afterwards.

(c) Most manufacturers exercised some discretion regarding either the magnitudes of \( r \) or \( v \), especially in light of the competitive conditions in the market.

(d) Many manufacturers in the industry adopted the price of a price leader manufacturer or of their trade association; others simply accepted or rejected the price offered to
them by a prospective buyer after carrying out a hypothetical costing exercise.

   (1) Business.
   (2) Personal knowledge.
   (3) Two.
   (4) Toy manufacturer and a manufacturer of industrial abrasives.
   (5) Toy manufacturer

\[ M + W(1 + g) [1 + z] = \text{price} \]

where \( M \) is estimated average direct material costs;
\( W \) is estimated average direct labour costs;
\( g \) is a mark-up for shop expenses; and
\( z \) is a mark-up for firm expenses and profit.

(a) If the price is higher than those of competitive toys, the manufacturer will either try to
to reduce costs and the price by redesigning the toy, or redesign the toy so as not to be
similar to the competitive toys.

(b) Prices are determined in the spring and generally maintained for the year; it is
difficult to alter prices once distribution channels start building up inventory in
preparation for the Christmas season.

(c) The manufacturer aims for a desired rate of return on sales.

Industrial abrasives manufacturer

\[ \text{ATC} [1 + t] = \text{price} \]

where \( \text{ATC} \) is average total costs; and
\( t \) is a mark-up for profit which would return a target rate of return on capital.

(a) \( t \) can be modified in light of competitive conditions.

(b) The manufacturer will tolerate estimated losses on particular products so long as the
total estimated profit for the division is in line with the profit goal and the sale of the
particular product is tied into sales of other products.

   (1) Economic.
   (2) Personal knowledge — family enterprise.
   (3) One.
   (4) Manufacturing enterprise.
   (5) The investigation did not delineate a pricing procedure *per se*; however, it did provide
evidence on the price policies adopted by the manufacturing enterprise.

(a) The enterprise’s pricing policy was decided within the framework of a policy of rapid
growth.

(b) Influences on pricing policy were (i) the industry’s rapid technological development
which led to a high rate of machine obsolescence; (ii) the idea that machines should
be fully depreciated before new ones were bought, which made the firm want to keep
the machines running at all times; and (iii) the textile cycle.

(c) During the upswing of the textile cycle, prices were not increased in the texturing
industry because (i) the falling level of costs combined with full capacity utilization of
machines provided profit levels which texturizers considered adequate; and (ii) the
enterprises did not want to jeopardize the full capacity working of their machines by
raising prices outside the currently accepted price band. On the other hand, during
the downswing of the textile cycle prices fell as the enterprises cut prices in an effort
to obtain or retain full capacity utilization of their machines; the price decline was
usually led by newcomers to the industry.

(d) The enterprise’s salesman were the main source of information on market conditions
which would be used for pricing.

(e) The enterprise accepted the fact that a ‘normal price’ existed; it was established by
word of mouth in trade gossip (social convention) and acted as a reference point with
which the strength of buyers and sellers could be judged.

(f) The normal price was not fixed, but would change with respect to market conditions,
prevailing price rumours, and expectations.
(g) Product lines were costed so as to provide a base which prices should not go below.


(1) Economic.
(2) Questionnaire supplemented by interview.
(3) One hundred and three.
(4) Dry cleaning and laundry enterprises.
(5) No pricing procedures were given.
(a) The enterprises had multiple pricing objectives, including market share, profits, sales, and target amount above break-even.
(b) None of the enterprises engaged in price skimming and only a few of the largest made infrequent attempts at predatory pricing.
(c) The enterprises took both, but to different degrees, costs and market conditions into consideration when setting prices.
(d) 25% of the enterprises changed their marketing policies once or more every three years.
(e) Enterprises which placed greater emphasis on costs when setting prices were more likely to be able to determine the costs and profits of individual service-lines and to change the price of any one service-line independent of their other services.


(1) Economic.
(2) Case study.
(3) Thirteen.
(4) Manufacturing business enterprises.
(5) 
\[
\begin{align*}
[(ADC) (1 + g) (1 + h)] [1 + r] &= \text{price} \\
[(ADC) (1 + v)] [1 + r] &= \text{price} \\
[NAFC] [1 + z] &= \text{price} \\
[ATC] [1 + t] &= \text{price}
\end{align*}
\]

where ADC is average direct costs;
NAFC is normal average factory costs;
ATC is average total costs;
g is a mark-up for shop expense;
h is a mark-up for firm expenses;
v is a mark-up for overhead costs;
z is a mark-up for firm expenses and profit;
r is a mark-up for profit; and
t is a mark-up for profit which would return a target rate of return on capital.

(a) The enterprises felt that changes in prices of individual products were unlikely to have much effect on sales of those products over longish periods of time; however if one enterprise lowered its price while all others maintain theirs, its sales would increase — but the price decline has to be 5% or more.
(b) The enterprise found it difficult to distinguish between the effect of a change in price on the volume of sales and the effects of changes in other variables, such as product design, advertising, or sales promotion expenditure.
(c) The enterprises could easily obtain information about competitors' marketing arrangements, but had difficulty getting information about their plans for marketing individual products, for developing new products, for expanding plant, or on production and selling costs; with regard to a lack of knowledge about competitors' costs, the enterprise would use their costs as a basis to judge their competitors' costs.
(d) The enterprises associated marginal costing with dumping, slumps, and price wars.
(e) For 11 enterprises, pricing was an administrative decision made by a group within the enterprise; for the other two enterprises, pricing was an administrative decision made by a single individual.
(f) The most significant constraint for the enterprises was the fear of price warfare; other fears included government intervention.
(g) Some of the enterprises produced products which have traditional price ranges which were not violated except in depression.

(h) Two enterprises used internal funds for capital investment, so they needed a good profit margin or a good rate of return (about 15%).

(i) Frequency of price changes: one enterprise met 4 times a year to consider price changes; 3 enterprises had annual price reviews; 5 enterprises reviewed prices only when necessary; one enterprise kept the same price for several years; and one enterprise permitted its sales people to vary the list price by + or −1%.

(j) Mark-ups for profit (including the target rate of return) were affected by competition and other market forces.

(k) Objectives of the enterprises

(i) Marketing objectives.  
*Long-term objectives* (greater than a year and usually five years) were concerned with profitability and to a lesser extent with market share; and *short-term objectives* were derived from the long-term objectives and were included in the short-term operating plans and provided specific targets for profits, sales volume, and market share.  
*Other* — were designed to meet profit objectives.

(ii) Profit objectives.  
*Profit objectives* for all enterprises were stated in terms of an absolute sum of money.  
*Rate of return* on capital was used by all enterprises — 12 of the enterprises calculated the rate of return for the enterprise as a whole, while one enterprise calculated it for each product/product line. 8 enterprises were satisfiers; 1 enterprise attempted to maximize profits; and 4 enterprises half-heartedly attempted to maximize profits.

(iii) The objective of pricing was to set prices which would enable the enterprise to meet its marketing and profit objectives.

(iv) The enterprises had many objectives, but they were not all mutually consistent; many enterprises had a conflict between increasing short-term profits and building up of long-term sales, market share, and hence profits.


(1) Economic.

(2) Questionnaire surveys.

(3) 402 enterprises for the 1971 survey and 286 enterprises for the 1983 survey.

(4) Manufacturing enterprises in Baden-Württemberg.

(5) Dr S. Wied-Nebbeling has provided me a summary of her results about pricing behaviour, which is as follows.

(a) Regarding answers to some questions about pricing of new products (numbers in brackets apply to 1971).

(i) 70 (120) enterprises used a cost-plus pricing as a pricing procedure with average costs as the basis and a fixed, constant, percentage profit margin. This pricing procedure was found among small (up to 50 employees) and middle-sized enterprises (up to 500 employees).

(ii) 119 (100) enterprises used cost-plus pricing procedures, but the percentage profit margin was not constant but took account of competitive conditions and whether a little higher or smaller margin (hence price) would yield more profit.

(iii) 30 (41) enterprises set their prices at the level of the prevailing market price.

(iv) The price for 34 (7) enterprises was set by the greatest customer(s) or was found in a bargaining process with him or them.

(v) Some enterprises set their prices at or under or above the level of rivals' prices.

(vi) Enterprises in the categories (i) to (iv) took their pricing decision independently of the decision about the amount of output they wanted to produce.

(b) 62 (102) enterprises answered the following question with a YES.
You take several hypothetical outputs (in the range of your capacity). You estimate the possible prices at which you could sell the outputs. You assess the production costs belonging to the various outputs and (with the estimated prices) the suspected returns belonging to them. You produce the output and set the corresponding price where the profit is greatest.

(c) 53 (91) enterprises answered the following question with a YES.
In your pricing decision, do you include competition in such a way that you set a lower price as you really could in the face of demand conditions to prevent new rivals?

   (1) Accounting.
   (2) Postal questionnaire.
   (3) 94.
   (4) Manufacturing and service enterprises.
   (5) The investigation did not delineate pricing procedures per se; however, it did provide evidence on the price policies adopted by the enterprises.
   (a) Enterprises used more than one kind of costing and pricing procedures.
       
       Costing procedures
       31% of the enterprises used direct, marginal, variable, contribution costing procedures; and
       76% of the enterprises used absorption (full) costing.
       Pricing procedures
       99% of the enterprises used cost-based pricing procedures, including adding a
       percentage to costs and rate of return on investment.
       38% of the enterprises used non-cost pricing procedures.
   (b) 71% of the enterprises used absorption cost-based pricing procedures when tendering bids or negotiating prices.
   (c) 71% of the enterprises used absorption cost-based pricing when producing published price lists.
   (d) 76% of the enterprises consider factors other than costs when determining a selling price, such as follow market leader, competitors' prices, customer reaction, and trail and error.
   (e) 65% of the enterprises formally investigated price acceptability among customers before finally fixing prices.

   (1) Economic.
   (2) Questionnaire and information from the business enterprises within the industry and from trade associations.
   (3) 147.
   (4) Distribution and retailing enterprises.
   (5) No pricing procedures were given.
   (a) The purchase or rental of video tape recorders is based on consumer income.
   (b) In setting the retail price:
       28 retailers used the prices suggested by the importers.
       28 retailers discounted from the prices suggested by the importers.
       50 retailers marked up from the purchase price.
       22 retailers used some other method for setting their retail prices.
   (c) For independent retailers, the average discount from their quoted selling prices ranged from 0.5% to 3.6%.
   (d) For multiple retailers, the average discount from their quoted selling prices was less than 1%.
   (e) For dealers the average discount from their quoted selling prices ranged from 0.5% to 11.8%.
   (f) Importers' sales expenditures on advertising and promoting sales generally did not exceed 4% of sales.
   (g) Importers appeared either to set the same percentage margin as they get on hi-fi
Part II of Article 3 (Review of Political Economy, 6,3)

equipment, or slightly above in order to cover the expenses associated with a new product; similarly, half of the retailers took the same mark-ups on video tape recorders as on other electrical goods, the other half being equally split between higher and lower margins.

   1. Economic.
   2. Questionnaire, information from enterprises within the industry, and information from trade associations.
   3. Over 100.
   4. Distributors of footwear.
   5. No pricing procedures were given.
      a. Shoes sold under a branded manufacturer’s name, whether in his or her own outlets or through independent retailers, are everywhere sold at the manufacturers’ recommended retail prices, except during sale times.
      b. For made-to-order shoes, prices are set by the retailer selling usually under the own-brand name and prices of identical shoes are the same in all the retailers outlets.
      c. Importers of footwear recommend retail prices and generally such recommendations are adhered to.
      d. Imported footwear generally carries the same mark-up as made-to-order shoes but a higher mark-up than branded footwear; fashion footwear generally has higher mark-ups than traditional footwear; and adult footwear has higher mark-ups than children's footwear.

60) **Price Commission** 1978: *Prices, costs and margins in the publishing, printing and binding, and distribution of books*. London: HMSO.
   1. Economic.
   2. Questionnaire and consulting trade associations.
   3. Unknown.
   4. Manufacturing and retailing enterprises.
   5. \[ ADC \times (1 + k) = \text{price} \]
      where \( ADC \) is average direct costs; and
      \( k \) is a mark-up for overhead costs, royalties, and profits.
      a. Publishers safeguard their business by concentrating their attention on cash flow.
      b. HMSO pricing policy is to break even.
      c. Printers and binders used a costing system devised by the British Printing Industries Federation when quoting prices; the system allocates overheads and calculates labour costs on the basis of normal capacity utilization.
      d. Printers and binders are reluctant to charge on a marginal basis for fear of permanently depressing UK prices.
      e. \( k \) will vary according to category of book being published.
      f. Some publishers set prices so as to achieve specific rates of gross or net profit margins.
      g. On a first edition a publisher will often aim to do no more than cover his first copy costs, seeking to make his profits mainly on reprints and new editions.

   1. Economic.
   2. Survey, interviews, and discussions with trade associations.
   3. 197.
   5. \[ \text{Retailer: } RPP \times (1 + k) = \text{price} \]
      where \( RPP \) is the retailer's purchase price or trade list price of the bed; and
      \( k \) is a mark-up for overhead costs and profit.
      a. Retailers stated that gross margins achieved on beds are very similar to those on other major items of furniture.
      b. Manufacturers and retailers both emphasized the importance of price in the market for beds and the effectiveness of double pricing, using the recommended retail price
as the upper reference point, in attracting the attention of consumers.

c) Prices for beds in mail order catalogues have to remain constant for 6 months or
more.

d) $k$ can vary with category of bed.

e) Factors affecting $k$ include local competition and critical price points; price points
have remained stable and have not moved with inflation.

f) There is some negotiation on prices between retailer and customer, but do not know
the extent of it.

Economic Society of Yamaguchi University. In Japanese. Summarized and translated by
T. Kanao.

(1) Economic.
(2) Questionnaire.
(3) 143.
(4) Manufacturing business enterprises.

(5) The investigation did not delineate pricing procedures per se; however, it did provide
evidence on price policies and other activities adopted by the business enterprises.

(a) Pricing policies — in order of priority: coping with competitors, securing target profit
rate, increasing market share, stabilizing prices, maintaining market share, increasing
sales, and promoting new products.

(b) Cost-plus pricing was used by at least 132 enterprises.

(c) 20 enterprises, the majority of which were price leaders, were able to fix a mark-up
for profit without having to consider the consequences of competition; and they were
able to obtain their target profit rate.

(d) 94 enterprises adjusted their mark-up for profit in light of existing competitive
conditions.

(e) Operating profit rate on sales was considered the most important; profit rate on total
capital was considered second in importance.

(f) The most important of the factors determining the target profit rate is the expected
growth rate of sales, the desired level of retained earnings, and competitive
conditions.

(g) The stage of a product's life cycle affected its competitive situation — the later the
stage, the more competitive and the lower the target profit rate.

(h) The majority of the enterprises based their competitive strategy on product innova-
tion, while a minority based theirs on having a competitive price.

63) Sakurai, M. and Ito, K. 1986: An empirical research about price determination of

(1) Economic.
(2) Questionnaire.
(3) 386.
(4) Manufacturing business enterprises.

(5) \[ \frac{\text{ATC}}{1+r} = \text{price} \]
\[ \frac{\text{AC}}{1+t} = \text{price} \]
\[ M + \frac{\text{CC}}{1+r} = \text{price} \]
where $M$ is average direct material costs;
$CC$ is conversion costs which includes average direct labour costs and overhead
costs;
$\text{ATC}$ is average total costs;
$r$ is a mark-up for profit; and
$t$ is a mark-up for a target profit.

(a) The 'person' in charge of pricing included the executive board for 229 enterprises, the
director for 161 enterprises, the president and vice-president for 91 enterprises, the
chief accountant for 45 enterprises, and the sales manager for 6 enterprises — in
some enterprises, different 'persons' may be in charge of pricing different products.

(b) Priority of pricing objectives: total profits, profit rate on sales, total sales, market
share, and rate of return on investment — many enterprises pursued multi-pricing
objectives.
(c) 77 enterprises set prices where \( r \) or \( t \) were not affected by competition; 193 enterprises set prices where \( r \) and \( t \) were affected by competition; and 133 enterprises faced both pricing situations.

(d) Pricing of new products: 40 enterprises engaged in price skimming and 41 enterprises engaged in penetrating pricing.

(e) Normal cost pricing was used by 279 enterprises in the short term and by 299 enterprises in the long term; and target rate of return pricing was used by 12 enterprises in the short term and by 16 enterprises in the long term.

(f) In terms of the degree of competitiveness, quality was ranked first as being the most competitive, followed by price and then technical innovation.


1. Economic.
2. Case study.
3. Eighteen.


5. \( \frac{\text{SDC}}{1 + k} = \text{price} \)
\( \frac{\text{SAVC}}{1 + k} = \text{price} \)
\( \frac{\text{ADC}}{1 + g} (1 + h) (1 + r) = \text{price} \)
\( \frac{\text{ATC}}{1 + r} = \text{price} \)

where SADC is standard average direct costs; SAVC is standard average variable costs; ADC is average direct costs; ATC is average total costs; 
\( k \) is a mark-up for overhead costs and profit; 
\( g \) is a mark-up for shop expenses; 
\( h \) is a mark-up for firm expenses; and 
\( r \) is a mark-up for profit.

(a) The general objectives of the business enterprises included achieving a particular sales volume or market share subject to earning some rate of profit, aiming at maximum sales subject to earning a given rate of return on capital, maximizing market share or sales combined with maximum profits, maximizing profits, keeping capacity fully employed, breaking into the EEC, restoring profit rate on capital, diversifying products, and financing as much of the expansion as possible out of retained earnings.

(b) The devaluation objectives of the business enterprises included the following: increasing Sterling prices by the full amount of devaluation; increasing sales subject to not reducing profit per unit; increasing profits; increasing sales and an acceptable increase in profit tempered by patriotism and the feeling that it was improper to take advantage of devaluation.

(c) Business enterprises were run by satisficing procedures.

(d) The business enterprises stated that prices were not an important marketing factor over quite a wide range and that price changes within a given range produced no change in sales either at the level of the enterprise or at the level of the market.

(e) The enterprises did not calculate marginal costs when deciding whether to respond to devaluation in a way that would increase exports; marginal costs were calculated only when an absolute minimum price for a tender was needed to be known.

(f) Managers, administrators, and committees made price decisions and set prices.

(g) Most of the enterprises preferred to increase sales rather than maximize profits; this accounts for why no formal calculation of price elasticity of demand was made by any of the enterprises.

(h) Cost increases in the home due to devaluation led to prices increases in the home and export markets.

(i) Some of the enterprises found that the demand for their products was based on population growth.

(j) Variations across products for some enterprises, but not for all.

(k) Potential competition, via import penetration, fears restricted the rise of home prices due to cost increases resulting from devaluation.
Appendix C

Summaries of studies on the frequency of price changes


Carlton re-examined the Stigler and Kindahl evidence, looking not at aggregate price indices of average transaction prices, but at the actual individual buyers’ prices. He arrived at the following conclusions:

1) In terms of product groups, the average duration in which the price of a particular good does not change ranges from 3.6 to 13.2 months, with the standard deviation ranging from 3.6 to 18.3 months; in several of the product groups prices are on average unchanged over periods exceeding one year; but within a product group, great heterogeneity in price stability is present.

2) In most of the product groups, price stability of four months to over four years is associated with over 50% of transactions; in particular, 50% or more of all transactions involving steel, cement, chemicals, or glass, have average price stabilities of one year or more.

3) Regarding price changes, very small absolute price changes were generally associated with products which had relatively short periods of price stability. Thus, the more stable the price, the greater is the price change when the price changes.

4) The longer the association between buyer and seller, the smaller the average absolute price change.

5) With regard to price stability and specific products, the results are similar to that of the products; in addition, the data indicates that most products have average durations of price stability in excess of eight months with durations of eighteen months or more being quite common.

6) The level of industry concentration is strongly correlated with stable prices; the more concentrated the industry, the longer is the average spell of price stability.

1) Looked at prices of 12 products from three mail-order enterprises, L.L. Bean, Inc, The Orvis Company, Inc and Recreational Equipment, Inc.
2) The 12 products underwent minimal quality change for the time period under consideration.
3) Each enterprise has two major price revisions each year — the Spring and Fall catalogues.
4) The prices looked at for this study were the list prices in the Spring and Fall catalogues; sales of the products were very infrequent, so sales-prices were ignored.
5) The time period under consideration is 1953 to 1987.
6) Data showed that for the 12 products, the average number of months between price changes ranged from 11 months to 30 months, and the longest spell in which no price changes occurred ranged from 42 months to 132 months.
7) Data also showed that the average absolute percentage price change ranged from 4.8% to 17.1%, and that well over half of the price changes were 15% or less.
8) Data suggested that the pricing period is variable and a major factor in that variability is the notion of a ‘pricing point’ or ‘conventional price’. The data also suggested that in periods of general ‘inflation’ pricing points become less relevant and are replaced by more frequent price changes.
9) Finally, all prices were set by the enterprises and administered to the market; competitor prices and reactions were taken into account when the prices were set.

1) The number of industrial enterprises interviewed was 72.
2) The responses of the interviewees regarding the frequency of price changes in a typical year for their most important products were the following: less than 15% of the enterprises
changed their prices four or more times per year, and 55% of the enterprises changed their prices no more often than once a year.

3) The responses of the interviewees regarding the lag-time between a significant change in demand or costs to a change in the price clustered around 3–4 months.

4) According to the interviewees, the explanations which seemed to be important in explaining infrequent price changes were (i) that delivery times and services might be altered instead of the price; (ii) problems of co-ordinating price changes among competing firms; (iii) implicit contracts with customers; and (iv) cost-based pricing or normal cost pricing.