COMMISSION OF THE EUROPEAN COMMUNITIES

# A STUDY OF THE EVOLUTION OF CONCENTRATION IN THE DANISH FOOD DISTRIBUTION INDUSTRY

PART ONE:
Concentration in the Danish food distribution system

PART TWO:
The first and the second price surveys in Denmark

November 1976

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

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

This particular volume constitutes a part of the second series of studies, the main aim of which is to present the results of the research on the distribution of food products in Denmark.

Part Two of this volume, which outlines the detailed results of the first and the second price surveys in Denmark, is introduced by a "Methodological Research Programme" written by Dr. Remo Linda, Head of the "Market Structure" Division at the Commission of the European Communities in Brussels.

The Commission is also publishing several volumes concerning the food distribution industry in other Member States (United Kingdom, France, Germany, Italy).

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# PREFACE

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

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

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

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

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

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

Instituttet for Fremtidsforskning — Institute for Futures Studies

## PART ONE

# CONCENTRATION IN THE DANISH FOOD DISTRIBUTION SYSTEM

A report prepared for the
Directorate General for Competition
of the
COMMISSION OF THE EUROPEAN COMMUNITIES
by the
INSTITUTE FOR FUTURES STUDIES

November 1976.

**POSTAL ADDRESS:**
Vester Farimagsgade 3
DK-1606 København V
Denmark

**TELEPHONE:**
01/11 71 76

**POSTAL ACCOUNT:**
8 18 76 73

**BANK ACCOUNT:**
DEN DANSKE BANK af 1871
Afdeling: Frihedsstøtten
11271-2

This report commissioned by the Directorate-General for Competition of the Commission of the European Communities has been carried out by the Institute for Futures Studies, under the direction of Professor Thorkil Kristensen and Professor Th. Herborg-Nielsen. The work has been carried out by Associate Professor Niels Jørgensen. The report has been translated from Danish into English by cand.ling.merc. Birger Andersen.

## PART ONE: CONCENTRATION IN THE DANISH FOOD DISTRIBUTION SYSTEM

TABLE OF CONTENTS : PAGE

# PART TWO: THE FIRST AND THE SECOND PRICE SURVEYS IN DENMARK

TABLE OF CONTENTS :

## 1. Delimitations, etc.

### 1.1 Units and Trades

The present investigation will look into the distribution of processed foodstuffs in Denmark. The aim is to illustrate the development in concentration in the system of distribution during the period 1968-74/75, and in the light of this to advance some hypotheses for the development within the next few years.

The elements of the system of distribution for processed foodstuffs are those middlemen who handle, transport, and store the products and who also in most cases acquire the ownership of the products. The middlemen of this system are both wholesalers and retailers.

The primary unit of analysis is the firm, i.e. the legal entity such as the one-man enterprise, the co-operative society, the partnership, the joint-stock company. In most cases, the firm, be it within the retail or the wholesale trade, is confined to one locality, exercising only one important activity. Only firms with a certain minimum turnover are included in total figures.

A number of large firms may include several geographically separated units, exercising several important activities within other distribution trades as well as different groups of principal industries.
In such cases, the firm consists of several departments - establishments. The difference between a census of firms and one of establishments is shown in Table 1. It is a census taken of the retail trade in 1969, and it appears that the difference is not very marked.

Table 1.1. Retail Firms and Establishments and Their Personnel, 1969.

| | Number of firms | Personnel | Number of establishments | Personnel |
|---|---|---|---|---|
| Milk, bread | 3679 | 8104 | 3697 | 8065 |
| Cheese | 486 | 1042 | 503 | 1025 |
| Beef, pork, delicatessen | 4092 | 16443 | 4234 | 16290 |
| Fish game | 1036 | 1913 | 1049 | 1904 |
| Coffee, tea, confectionery | 1306 | 4874 | 1622 | 4666 |
| Ice-cream stalls | 1553 | 2026 | 1555 | 2022 |
| Fruit, vegetables | 2329 | 5995 | 2358 | 5981 |
| Flowers | 1093 | 3105 | 1125 | 3096 |
| Groceries, etc. | 12236 | 55891 | 13089 | 51358 |

Source: Statistisk Tabelværk, 1972:1.

The firm has been chosen as the unit of analysis, because this is the only way of making it possible to illustrate variables such as profits, allowances, cash flow, and investments in a reasonable way.

One of the analyses, however, deals with a unit called the retail group. A retail group is a group of firms at wholesale as well as retail level connected in a chain system.

Wholesale firms are usually defined as business enterprises buying and selling products, but not selling directly to the final consumers, while retail firms are business enterprises buying products with the aim of reselling them to consumers. It is the main activity, however, that determines the trade membership. There are retail firms, for instance, that exercise one or more wholesale functions and/or produce one or more articles such as the roasting and packing of coffee. This is especially the case with major chains. In the same way, a number of wholesale firms are engaged in the production of various articles, while, simultaneously, exercising various retail functions such as price-marking, advertising, fitting up of shops, etc. Wholesale firms may also own retail shops.

As far as retailing of foodstuffs is concerned- from the domestic food industry as well as from abroad - the number of units involved is large and varied. Processed foodstuffs are sold to a greater or smaller extent through the following types of retail outlets:

Baker's shops
Dairies
Butcher's shops
Fishmonger's and poulterer's shops
Coffee, tea, confectionery, and ice-cream shops
Groceries

Apart from those, department stores, service stations, news stalls, and pharmacies to a very limited extent sell certain foodstuffs.

For the reasons mentioned below, however, the only retail trade that will be considered is the grocery trade.

1. For the four groups: department stores, service stations, news stalls, and pharmacies the turnover of foodstuffs accounts for only a negligible fraction of the total turnover of the units and, furthermore, their total turnover of foodstuffs is extremely modest in relation to the total retail turnover of foodstuffs of the country.

2. The other groups of shops, apart from groceries, are mainly engaged in the selling of foodstuffs, but as far as the groups fish and game, fruit and vegetables, and butchers are concerned, their turnover of processed foodstuffs accounts for only a minor part of the total turnover of the shops. The total turnover of these groups is small and steadily decreasing in relation to the turnover of the grocery trade - see Table 2.

3. The statistical material, etc., for the grocery trade is considerably more detailed than it is for the other trades, cf. the next section.

By delimiting the object of analysis at the retail level in this way, the analysis of the far and away most important retail sector for processed foodstuffs will be more thorough and reliable. On the other hand, not all relevant flows of goods and retail units will be analysed - a fact to be taken into consideration when the values of the various concentration indices are interpreted. Furthermore, part of the turnover of the grocery trade is not accounted for by processed foodstuffs, but by unprocessed foodstuffs, chemico-technical articles, textiles, etc., because the units are registered according to their main activity without any further splitting up of the varibale values.

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Table 2.1. The Turnover of the Most Important Food Trades 1968-74 (Million Dkr.)

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Bakeries[1] | | 1173 | 1281 | 1383 | 1471 | 1596 | |
| Milk, bread | 872 | 943 | 1085 | 1155 | 1254 | 1360 | 1360 |
| Beef, pork, delicatessen, cheese | 1904[2] | 2007[2] | 2274 | 2394 | 2552 | 2968 | 2809 |
| Coffee, tea, confectionery | 347[3] | 379[3] | 383 | 513 | 557 | 599 | 449 |
| Fruit, vegetables | 591 | 630 | 532 | 547 | 615 | 750 | 679 |
| Flowers | | | | | | | |
| Fish, game | 165 | 171 | 157 | 158 | 163 | 171 | 145 |
| Groceries, etc. | 10783 | 11564 | 12405 | 14006 | 15809 | 20822 | 24109 |

1) From the V.A.T. statistics

2) Excluding cheese

3) Including wine

Sources: Danmarks Statistik: Regnskabsstatistik for detailhandelen - Firmastatistikken.

The delimitation of the analysis of the retail level to the grocery trade makes natural a similar delimitation of the analysis of the wholesale level to the grocery trade. Admittedly, wholesale grocers usually supply only about 30 per cent of the purchases of the retail units, but only a small part of the rest is supplied by other types of wholesalers. The remaining part is accounted for by direct distribution to the retail level from the various producers. Examples are deep-frozen goods, beer and mineral water, bread, dairy produce, coffee, etc.

## 1.2 Information and Statistical Material

The analysis of the distribution system for foodstuffs is based partly on publications from the Danish Bureau of Statistics, partly on accounts and reports from the relevant firms, and partly on information from other sources.

The latest census concerning the retail trade taken by the Danish Bureau of Statistics is from 1969 and is published in Statistisk Tabelværk 1972:1, thus being about 6 years old. But apart from the retail trade censuses, the Danish Bureau of Statistics works out annual V.A.T. statistics and accounts statistics for the wholesale as well as the retail trade. These last two publications give the total values of a number of the variables examined year by year.

The major part of the variable values concerning the individual firms in the test samples have been furnished by the firms themselves, i.e. by their published accounts and reports, and from information sent to us. Thus, the Danish Consumers' Co-operative Societies publish very detailed accounts and a comprehensive report.

Besides, figures and information have been collected from a large number of publications. Most of them and those which are most detailed have been collected from:

Per Press: Supermarkeder 1968-75.
De Samvirkende Købmandsforeninger i Danmark (DSK): Normtal 168-75.
Danmarks Butiksregister: Statistikbilag,

but the publications - Danmarks 1000 Største Virksomheder and Greens Danske Fonds og Aktier - have also been useful.

A great deal of qualitative information has been collected from a number of further publications, especially from DSK, and from the journals:

Impuls and Frit Købmandskab.

Finally, a great deal of information has been obtained through interviews with managers of various firms.

# 2. The Structure of the Danish Distribution System For Foodstuffs

As mentioned in section 1.1. this analysis deals with the grocery sector in Denmark at the retail as well as the wholesale stage. The aim of this section is to provide a comprehensive description of the structural development in this sector and the factors which have influenced this development. The main emphasis of the description falls on the development in the shop structure, while the development at the wholesale stage is treated on that basis. First, however, we shall deal with the factors determining the structure.

## 2.1. The Most Important Factors Determining the Structure

The factors determining the sturcture are those social circumstances which may be said to have had a decisive influence on the formation of the distribution system for foodstuffs and which may be expected to have a decisive influence on future changes also. It is evident that the development and consumption pattern of the population is such a factor determining the structure, and so must also be the movement and motorising of the population. Apart form that, a number of factors related to the stores themselves must be of substantial importance. This applies to the number, appearance, etc., of the relevant products, the development in the cost items of the retail trade - especially wages and salaries - and especially to the legislative regulation of the selling of foodstuffs.

### 2.1.1. The Development And Consumption Pattern of the Population

The development in the consumption of food, beverages and tobacco appears from Table 2.1. , which shows that the consumption measured in current prices as well as real terms has kept step with the development in the total private consumption. Tables 2.2. and 2.3. provide a picture of the price development at the retail and wholesale stages. It appears that the wholesale prices have increased somewhat less than the retail prices. This is mainly a consequence of the development in costs at the retail stage, especially in wages and salaries, whose development is outlined in Table 2.4.

The consumption of food, etc., is related to the development in the population, of course. Table 2.5. shows that during the period the Danish population has grown by a little less than 200,000 persons.

At the same time, the age composition has changed, so that the number of small children has decreased, while the number of old people has grown. It is not likely, thus, that the increase in population has had any substantial influence on the development in consumption, but the change in the age composition may perhaps exert an influence in the long run.

There are other factors, however, than the development in the total consumption of food which may influence the shop structure. It is of vital importance how large is the proportion of the consumption of the population that passes through the retail trade. During recent years there has been a tendency towards an ever-growing share of the consumption of food taking place away from home, i.e. in canteens, restaurants, institutions, etc. In Denmark there is a total of 2000 institutions, some 4200 restaurants, inns, and hotels with restaurants, about 2400 canteens, about 450 cafeterias and grill-bars, and a number of boarding houses and caterers. Roughly, these large kitchens demand food for approx. 2000 million Dkr. During the period the demand of all the above categories with the exception of boarding houses has increased. We can expect - with an eye to the USA and Sweden, where the development is ahead of that of Denmark - that the tendency to eat away from home will grow in the future with the consequence, of course, that the various types of food stores will lose turnover. Thus, we can expect that the demand by the canteen sector will increase by 6 to 8 per cent annually in real terms, while the demand by the restaurants sector, etc. may be expected to grow by about 3 per cent annually, also in real terms.

There are also some deep-frozen products which do not pass through the retail trade. Direct supplies of deep-frozen food to households with deep-freezers have grown during the period. Thus, the turnover of the largest firm in the market - Dansk Fryseøkonomi - has more than doubled during the period 1972-1974.

Table 2.1. Consumption of Food, Beverages, And Tobacco 1968-1974.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| | Million Dkr - current prices | | | | | | |
| Foodstuffs | 11,565 | 13,092 | 14,522 | 15,905 | 17,356 | 19,895 | 23,240 |
| per cent | 20 | 20 | 21 | 21 | 21 | 22 | 22 |
| Beverages and tobacco | 6,264 | 6,842 | 7,128 | 7,750 | 8,498 | 9,540 | 10,331 |
| per cent | 11 | 10 | 10 | 10 | 10 | 10 | 10 |
| Total private consumption | 58,209 | 66,139 | 70,756 | 75,976 | 83,085 | 94,649 | 105,035 |
| per cent | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Million Dkr - 1955-prices | | | | | | |
| Foodstuffs | 7,131 | 7,630 | 7,609 | 7,801 | 7,826 | 7,911 | 8,372 |
| Beverages and tobacco | 3,432 | 3,715 | 3,862 | 4,069 | 4,313 | 4,637 | 4,457 |
| Total private consumption | 34,223 | 37,610 | 38,106 | 38,891 | 39,996 | 41,980 | 40,530 |

Source: Statistisk 10-årsoversigt 1975

Table 2.2. Consumer Price Index 1968-1974.
1964=100.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Foodstuffs | 134 | 141 | 153 | 162 | 177 | 201 | 225 |
| Beverages | 130 | 131 | 139 | 144 | 148 | 156 | 176 |
| Tobacco | 137 | 138 | 140 | 143 | 147 | 156 | 172 |
| Total consumption | 131 | 136 | 145 | 153 | 162 | 176 | 202 |

Source: Statistisk 10-årsoversigt 1975

Table 2.3. Wholesale Price Index 1968-1974.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Animal foodstuffs | 100 | 104 | 109 | 117 | 131 | 151 | 150 |
| Fish and fish products | 100 | 118 | 139 | 144 | 153 | 197 | 218 |
| Vegetable foodstuffs | 100 | 107 | 116 | 112 | 123 | 146 | 159 |
| Beverages and tobacco | 100 | 103 | 110 | 112 | 116 | 127 | 145 |

Source: Statistisk 10-årsoversigt 1975

Table 2.4. Hourly Wages For Various Types of Workers 1968-1974 (ører).

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| All workers | 1353 | 1508 | 1677 | 1930 | 2154 | 2485 | 2975 |
| Women | 1038 | 1158 | 1290 | 1503 | 1713 | 2064 | 2533 |
| Skilled workers | 1573 | 1754 | 1944 | 2207 | 2451 | 2799 | 3318 |
| Unskilled workers | 1311 | 1462 | 1628 | 1873 | 2092 | 2410 | 2876 |

Source: Statistisk 10-årsoversigt 1975

Table 2.5. The Estimated Population Figures In Denmark 1968-73 (1st July).

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |
|---|---|---|---|---|---|---|
| 1000 persons | 4,867 | 4,891 | 4,929 | 4,963 | 4,992 | 5,022 |

Shifts In the Age Composition From 1968 To 1974 (the beginning of the calendar year).

| Persons | Children 0-5 years | Old people over 65 years |
|---|---|---|
| 1968 | 489,000 | 571,000 |
| 1974 | 435,570 | 655,000 |

Source: Statistisk Årbog, 1975

### 2.1.2. The Products And the Costs of the Retail Trade

During a number of years there has been a marked tendency within the grocery sector and the food sector as a whole towards a growing number of products. New product groups have entered the market and have been included in the assortment of the stores. This applies for instance to baby food, deep-frozen products, dogs' and cats' food, and various types of instant dinners. This tendency has created/creates a demand for more room on the shelves and on the floor. This applies also to another tendency towards more variants within the various products. It is an evident fact, which need not be substantiated, that during recent years the range of foodstuffs has become substantially broader and deeper.

Apart from the number of products, their form and packing has also changed character. A growing number of products and brands have been designed for the self-service principle. This applies not alone to traditional groceries such as tinned food, coffee and flour and meal, but also to meat products, fruit and vegetables, dairy produce, and pastry and bread. There may be many reasons for this development, but we must assume that one of the most important are the growing wage costs of the retail trade. As mentioned previously, the development in wages is shown in Table 2.4. . In spite of this development in wages the spreading of the self-service principle and the rationalisation of the handling of goods have implied that the share of wages within the retailing of everyday commodities has risen only slightly. This appears form Table 2.6. . It should be noticed that the increase within the group: groceries, etc. is also due to a shift in the personnel towards more wage earners in relation to proprietors.

These development trends within products and costs have been contributory causes in a development away from small service stores towards larger self-service stores with a full range of food products. Another reason is probably also the consumers' wish for convenience and a broad range of goods in their daily shopping.

Table 2.6. Selected Accounts Relations For Retail Trade Enterprises 1970-74.

| | Gross profits as a percentage of turnover | | | | | Wages and salaries as a percentage of turnover | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1971 | 1972 | 1973 | 1974 | 1970 | 1971 | 1972 | 1973 | 1974 |
| Groceries, etc. | | | 14.1 | 14.5 | 14.8 | | | 4.9 | 5.6 | 6.0 |
| Supermarkets | 17.2 | 18.1 | 18.4 | 18.2 | 18.3 | 7.2 | 7.7 | 7.6 | 8.0 | 8.5 |
| Departmental Stores | 22.5 | 22.3 | 22.8 | 21.5 | 22.3 | 10.7 | 11.1 | 10.5 | 10.1 | 10.0 |
| Variety Stores | 34.5 | 35.8 | 36.6 | 36.9 | 37.7 | 19.9 | 21.2 | 30.4 | 21.3 | 23.2 |

Source: Statistiske Efterretninger 1976
1975 No. 77
1974 No. 47

### 2.1.3. The Adjustment To the Movement of the Population

A large part of the structural changes in the distribution system of everyday commodities described in the following is directly a consequence of the adjustment to the movement and situation of the population. During the period comprehensive movements have taken place within most areas, especially to the districts surrounding large cities and to large urban areas in most municipalities. This fact is part of the explanation of the construction of centres and the closing of shops in traditional shopping streets in larger and smaller towns. It also explains the tendency towards more traffic-oriented shopping places - centres with car parks and retail units at approach roads and traffic junctions in contrast to the traditional shopping streets and local stores. But it is only part of the explanation, however. Another part is the emergence of motoring. The extension of motoring appears quite clearly from Table 2.7. which shows that the number of cars registreed in Denmark has trebled during the last 15 years. This vigorous increase in motoring has made possible the movement of the provincial town population to residential surburbs, but at the same time the need for traffic-oriented shopping places has grown. We must assume that the part of the population who own cars and who do not live next to a supermarket or a concentration of stores prefer to use their cars when shopping. The choice of shopping place will be influenced to a great extent by approach possibilities. Finally, the increase in the share of households where all adult members are working will have the consequence that many consumers will be interested in shopping at one single place, where they can be supplied with all their daily necessaries - one-stop-shopping.

Table 2.7. The Number of Cars In Denmark As Per 31st December 1967-74.

| | Number of cars | Increase |
|---|---|---|
| 1960 | 408,190 | |
| 1961 | 469,592 | 61,402 |
| 1962 | 547,841 | 78,249 |
| 1963 | 605,486 | 57,645 |
| 1964 | 675,167 | 69,681 |
| 1965 | 744,416 | 69,249 |
| 1966 | 813,136 | 68,720 |
| 1967 | 887,950 | 74,814 |
| 1968 | 955,337 | 67,387 |
| 1969 | 1,023,790 | 68,453 |
| 1970 | 1,076,875 | 53,085 |
| 1971 | 1,147,271 | 70,396 |
| 1972 | 1,203,243 | 55,972 |
| 1973 | 1,244,898 | 41,655 |
| 1974 | 1,256,318 | 11,420 |
| 1975 | 1,294,900 | 38,582 |

Source: Statistiske Efterretninger A1976 32

We must assume that the number of weekend and summer cottages influences the shop structure - especially in typical recreational areas. A large part of the food consumption will move temporarily - especially during the summer season, but also in weekends and the other holidays. During the five years from 1966 to 1971 the number of weekend and summer cottages increased by approx. 27,000 from 101,731 to 128,722, and during the period 1972 to 1974 an additional number of 25,000 have been built according to the Danish Bureau of Statistics.

Today the movement of the population as a predominant factor determining the structure must be said to have had its day. We must assume that the population will not move as much as previously; but a larger and larger share will be living in one-family houses. This is illustrated by Table 2.8. showing the flats distributed according to type of the house at the 1965 and 1970 assessments. We must also assume that the part of the population possessing cars will increase, but that there exists an upper limit, cf. the declining increase in number of cars in Table 2.7.. Finally, we must assume that the share of women and men employed outside the home will keep fairly constant.

This means that we must expect a certain continued expansion of the traffic-oriented part of the retail trade, i.e. the new regular centres, local as well as regional centres, and the old city centres which are made traffic-oriented by means of relieving streets, pedestrian streets with car parks and multi-storey car parks connected. We may also expect more large retail units, for instance at approach roads; large because they must be attractive in themselves like for instance low-price departmental stores. On the other hand, the main structure is now relatively fixed, and the expansion will therefore be characterised by a current adjustment to the gradually changed situation.

Table 2.8. Flats According To Type of the House 1965-1970.

| | 1965 | 1970 |
|---|---|---|
| Farms | 192,760 | 175,972 |
| One-family houses | 564,050 | 712,536 |
| Two-family houses | 138,800 | 116,343 |
| Multi-storey buildings | 675,580 | 791,797 |

Source: Statistisk Årbog 1969 and 1975

### 2.1.4. The Influence of Legislation.

A number of acts and regulations form a framework around the scope of activities of the retail trade. Through such legislation the public authorities exercise a substantial influence on the structural development. Part of this legal basis has been changed during the period which has had a considerable impact on the structure of the retail and, consequently, the wholesale food trade.

The acts having the greatest general impact on the structure are: the Danish Foodstuffs Act, the Danish Milk Act, the Danish Shops (Hours of Closing) Act, and the Danish Trades Act plus the Danish Competition Act (the Marketing Act), the Danish Licensing Act, the Danish Monopolies Act, and prices and profits legislation.

Apart from that, the individual local government authorities may exercise a substantial influence on the location of the retail trade within their districts through local plans laying down which areas have to be used for particular purposes - the size and location of areas for housing construction, public purposes and retail trade, etc. - through the acquisition of land and through the investment policy for public works. It should be born in mind that the local plans have a restrictive effect only ensuring that the retail trade cannot be located outside the areas pointed out; they do not ensure, however, that retail trade will be located in the areas.

The Danish Foodstuffs Act, 1973, and various regulations on deep-frozen foodstuffs, for instance, lay down certain restrictions as to the distribution of foodstuffs. Thus, selling and handling of foodstuffs at the retail stage, and selling, storing, bottling, packing, re-packing, and transportation of foodstuffs at the wholesale stage is prohibited until consent has been obtained from the local government authorities (Section 34).

Retailing of deep-frozen food may take place only from a permanent place of sale complying with various requirements as to the lay-out of the premises. Other retail outlets than butcher's shops and grocery stores may sell certain kinds of prepacked, sliced or cut out meat in retail package, if the premises comply with the requirements made in order to be approved for the selling of deep-frozen foodstuffs and if

(a) the goods in question are received directly from an authorized producer and are marked in accordance with current marking regulations

(b) the goods are stored in and sold from refrigerating equipment in which the temperature of the air does not exceed a certain limit and

(c) the packing is provided with an indication of the date of packing.

Actually, these regulations as to deep-frozen and refrigerated foodstuffs from 1964 and 1969 is a liberalisation of the foodstuffs trade, because a number of retail outlets such as grocery stores, supermarkets, and baker's shops have been able to expand their range of goods with these groups of articles.

The distribution of milk has also been liberalised. Until 1969 the wholesaling and retailing of milk and cream was strictly regulated. From 1940 and onwards, a license arrangement with the aim of ensuring supplies of milk and cream for the urban population at the lowest prices possible had been built up. Retailing was only allowed from dairies, retail sales vans, and permanent special places of sale, and any establishing, moving, or closing down had to be approved by the local governement authorities. The selling of tinned milk and other milk products could also be regulated. In return, such permanent places of sale were obliged to be open every day of the year with the exception of three holidays. An act passed in 1969 implemented a gradual liberalisation of the retail milk trade laying down that after a period of $1\frac{1}{2}$ years after the coming into effect of the act, the retailing of milk and cream should be a free trade, although the requirements laid down by the Danish Foodstuffs Act have to be met.

This liberalisation has had the consequence that today practically all supermarkets, departmental stores, and superettes sell milk and milk products, and so do also a large number of other grocery stores. In order to make it possible for the existing retail milk trade to adjust itself to the changed competitive conditions, the existing restrictions as to the range of goods of the retail dairies were abolished, so that the existing dairies were allowed to sell all sorts of goods with the restrictions only that follow from sanitary provisions. Despite all this, the liberalisation has resulted in a substantial reduction in the number of retail dairies, which is also illustrated by Table 2.11. in the following section.

The 1969 Act implied no fundamental changes in the provisions governing the wholesaling of milk and cream, but in 1972 the Danish Milk Act was repealed, because it could not be upheld after Denmark's admission to the Common Market as a consequence of articles 30 to 37 of the Rome Treaty on the abolition of quantitative restrictions between the member countries, the competition clauses in the articles 85 to 90, and the market schemes for milk and milk products.

The Danish Trades Act, 1966, requires of anyone who carries on trade that they must have a trade license, but on the other hand those who have a trade license may carry on trade or industry of any kind in and from the police district in question.

Previously, the Danish Trades Act prohibited retailers from having more than one shop in the same municipality. This may, of course, have limited the formation of regular chains, Chain shops required an industrial trade license, and the selling of products was restricted to one's own products and those of the same trade.

When the Act was passed in 1966 a transitional arrangement was introduced which laid down that until 1st January 1970 retailers could still have only one place of business in each municipality, unless the tradesman from each place of business in the municipality carried on trade, organised as a co-operative society, among the members of the society. This provision exempted the consumers' co-operative societies. Actually, the gradual abolition of the prohibition implied however, that spouses could each have a shop in the same municipality which has been an advantage to many grocers.

Since the 1st January 1970 there has been no restrictions on the number of shops which each individual retailer can have within a municipality. This fact has made possible the establishment of a number of small chains in delimited geographical areas.

Since January 1970 there exists no provision, either, requiring chain retail shops (producer chains) and tradesmen carrying on a craft - i.e. in this connection bakers and butchers, etc. - to restrict their range of goods to their own products and that of the same trade. The abolition of this provision has further influenced the overlapping of trades, because bakers as well as butchers have had ample possibilities of expanding their range of goods quite considerably. The Danish Shops (Hours of Closing) Act, the Danish Rent (Restriction) Act, sanitary regulations, and the foodstuffs legislation have been acting as a brake on this development, however.

The Danish Shops (Hours of Closing) Act lays down the hours in which the shops are allowed to be open. There exists no obligation to keep open, however, Until 1976 the general opening hours were:

| | |
|---|---|
| Monday-Thursday | 6 am.-5.3o pm. |
| Friday | 6 am.-8 pm. |
| Saturday | 6 am.-2 pm. |

After the passing of the new Act the general opening hours of the retail shops are from 6 am. to 5.3o pm. on weekdays, on Saturdays from 6 am. to 12, however. Apart from this, each shop is allowed to be open for up to 6 hours each week. The individual shops are free to place these supplementary opening hours, but the 6 hours must not be distributed on more than 3 days. The supplementary opening hours must not be placed on Saturdays after 2 pm. or on Sundays and holidays.

There are various exceptions, both in the old and in the new Act. A number of goods such as automatic vending machine goods and drugs are exempted, and so is a number of types of shops:

(1) News-stands
(2) Sweetshops
(3) Bakeries
(4) Baker's shops
(5) Sandwich shops
(6) Flower shops, and
(7) Service stations,

if they have a limited range of goods. The old Act specified the range of goods for these shops, while the new Act leaves this to the Minister of Commerce. The service stations were not included in the old Act, but they have been so in the new Act because during recent years they have expanded their range of goods the selling of which is subjected to the general provisions as to opening hours. This resulted in problems as to competition as well as control. There is no doubt that these exemption clauses contained in the Act have put a damper on the structural development described in section 2.2.

Areas which are used for summer and weekend stays and the border district are also exempted from the provisions as to opening hours. On petition the local government authorities may grant permission for addtional opening hours to associations of allotment owners, on camping and sports grounds, at large traffic junctions, and in or at hospitals and similar institutions. This latter provision has resulted in the establishment of supermarkets with very extensive opening hours at some railway stations.

## 2.2. The Shop Structure.

The shop structure of a country is defined as the number of shops, types of shops, location of shops (including formation of centres), size, form of service, and range of goods of the shops, plus form of ownership of the shops and various forms of integration.

### 2.2.1. The Number of Shops.

During the period 1968-74 the number of shops in the retail grocery trade has been substantially reduced- form approx. 13,000 to some 10,000. This development did not begin in 1968; on a rough estimate the 10 preceding years saw the closing of about 8,000 food stores of various kinds. It appears from Table 2.9. that it is mostly individual grocers who have been forced to close down, but the number of co-operatives has also been reduced. The number of chain-affiliated shops has increased a little.

On the basis of the V.A.T. statistics published by the Danish Bureau of Statistics it is possible, for a limited number of years, to achieve a distribution of the registration units of the grocery trade according to volume of trade, (see Table 2.1o.). It should be noticed, however, that this count unit does not correspond to a shop, but rather to a firm. It should also be noticed that the V.A.T. register count is finer than that of Dansk Butiksregister with respect to size and shops actually in operation, so that the number of registration units is larger than the number of shops in Table 2.9. . It appears quite clearly from the distribution in Table 2.1o.for the years 1968-1973, however, that it is shops with a small volume of trade that have been closed down, while the number of shops with a turnover of more than 1 million Dkr has grown. This is in harmony with the development in the number of superettes, supermarkets, and departmental stores, cf. the following sections.

Table 2.9. Number of Shops In Denmark 1968-1974. The Grocery Trade.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Grocers and voluntary chains 1) | 10,500 | 10,000 | 9,500 | 9,000 | 8,500 | 8,200 | 8,000 |
| Regular chains 1) | 260 | 260 | 270 | 280 | 280 | 280 | 290 |
| Consumers' co-operative societies | 2,266 | 2,200 | 2,091 | 2,089 | 1,945 | 1,881 | 1,862 |
| Total | 13,026 | 12,460 | 11,861 | 11,369 | 10,725 | 10,361 | 10,152 |

Sources: Dansk Butiksregister
Annual reports from "Brugsen"

1) Partly estimated and to some extent rounded figures

Table 2.1o. Number of Units In the Trade: Groceries, Etc. Distributed According To Volume of Trade, 1968-1973.

| | 0-99,999 Dkr | 100-499,999 Dkr | 500-999,999 Dkr | 1,0-2,4 million Dkr | 2,5-4,9 million Dkr | 5,0-9,9 million Dkr | 10,0 million Dkr | In operation the whole year | Total number of unit |
|---|---|---|---|---|---|---|---|---|---|
| 1968 | 598 | 6,409 | 3,719 | 2,146 | | | | 12,872 | 13,017 |
| 1970 | 589 | 5,111 | 3,525 | 1,654 | 267 | 95 | 53 | 11,294 | 12,527 |
| 1971 | 565 | 4,264 | 3,491 | 1,825 | 304 | 125 | 72 | 10,646 | 11,798 |
| 1972 | 508 | 3,565 | 3,379 | 2,068 | 354 | 153 | 84 | 10,111 | 11,171 |
| 1973 | 442 | 2,911 | 3,112 | 2,445 | 425 | 212 | 108 | 9,655 | 10,742 |

Sources for 1968: Detailhandelstællingen 1969, Statistisk Tabelværk 1972:1, tabel 5.
The unit is establishments in operation the whole year.

Sources for 1970-73: Statistiske Efterretninger 1975, No. 63
1974, Nos. 16 and 57
1973, No. 50
The unit is number of registration units in operation the whole year.

It is interesting to compare the development in the grocery trade with the development in the other food-distributing trades. This development is shown in Table 2.11.. The table whose source is the V.A.T. statistics shows the development in the number of registration units and in the turnover for the years 1970-73. It appears that all trades have experienced a substantial fall in the number of registration units. This is especially the case for the trade milk and bread, cf. the section on the legislative regulation. In contrast to the grocery trade, the other trades have had only a slightly increasing turnover - an increase which does not even correspond to price increases - cf. Table 2.2. . An ever-growing share of the total food turnover is distributed through the fewer shops of the grocery trade, while the other types of shops are losing their position.

Table 2.11. The Distribution of Food In Denmark. Number of Registration Units and Turnover 1970-1973 For Various Trades.

| | | 1970 | 1971 | 1972 | 1973 |
|---|---|---|---|---|---|
| Bakers | Registration units | 3,865 | 3,765 | 3,630 | 3,472 |
| | Turnover (mill. D. kr.) | 1,281 | 1,383 | 1,472 | 1,596 |
| Milk, bread | Registration units | 3,981 | 3,504 | 2,948 | 2,586 |
| | Turnover (mill. D.kr.) | 998 | 909 | 860 | 838 |
| Meat, etc. | Registration units | 4,864 | 4,539 | 4,312 | 4,090 |
| | Turnover (mill. D.kr.) | 2,116 | 2,113 | 2,235 | 2,375 |
| Fruit, vegetables, flowers | Registration units | 3,781 | 3,587 | 3,335 | 3,173 |
| | Turnover (mill. D.kr.) | 679 | 677 | 706 | 752 |
| Fish, game | Registration units | 1,156 | 1,058 | 961 | 899 |
| | Turnover (mill. D.kr.) | 160 | 159 | 167 | 170 |
| Coffee, tea, ice-cream, confectionery | Registration units | 3,537 | 3,281 | 2,920 | 2,654 |
| | Turnover (mill. D.kr.) | 621 | 686 | 696 | 734 |
| Groceries, etc. | Registration units | 12,527 | 11,798 | 11,171 | 10,742 |
| | Turnover (mill. D.kr.) | 12,026 | 12,925 | 14,318 | 20,050 |

Source: The same as Table 2.10 .

### 2.2.2. Types of Shops And Development In Range of Goods.

It appeared from the previous section that a growing part of the food turnover is distributed through the fewer shops of the grocery trade with the consequence of a larger turnover per shop. The grocery stores have not only grown in turnover, however, they have also changed character with respect to lay-out, area, form of service, and range of goods. These circumstances are related to each other, of course, since a growing turnover is a function of the changed shops.

Roughly, three new types of shops have emerged in the 50's, 60's, and 70's: superettes, supermarkets, and departmental stores, and all three types have expanded substantially during the period 1968-1974. Compared with the traditional grocery store, these types of shops are characterised by a broader and in many cases also deeper range of goods, by being self-service stores in stead of counter-service stores, and by having a larger sales area. The marketing has also changed character. Finally, the vertical as well as the horizontal integration has increased. These latter two points will be treated in main section 4. The prerequisite for this development has been the liberalisation of the foodstuffs legislation with respect to deep-frozen goods, sliced meat, and milk products as described in section 2.1.4. As a consequence it has been possible to create a range of goods that to a smaller or greater extent can satisfy the consumers' wish for one-stop-shopping with respect to everyday commodities.

#### Superettes

A superette is defined as a general food store capable of supplying the customers with the major part of their daily necessaries. The range of a typical superette includes groceries, dairy produce, refrigerated and frozen meat products and delicatessen, fresh fruit and vegetables, and bread and pastry plus perhaps newspapers and magazines. As a rule, the superette is a housing-oriented community store with self-service, and usually a sales area of about 100 $m^2$. In 1975, the turnover would vary between 1,5 and 3 to 4 million Dkr.

The superette was developed after 1970, when the liberalisation of the fresh goods area made it possible. After 5 years more than 2000 grocers have joined the various voluntary superette chains, but, in addition, a number of independent grocery stores have been enlarged, rebuilt, and modernised, so that they also meet the requirements made in order to be called superettes. What has happened in reality is that the largest and best located traditional grocery stores through the rebuilding of the premises and changes in the range of goods have been transformed into superettes. Finally, a number of co-operatives and chain branches may be characterised as superettes.

Supermarkets, departmental stores, and low-price departmental stores.

According to the traditional Danish definition, a supermarket is a food store with self-service and a full range of food products, irrespective of the size and turnover of the store.

According to the internationally recognised definition of a supermarket, it must also have a sales area of at least 400 $m^2$. In 1975, only 49 per cent of the supermarkets delimited by the Danish definition met with the additional requirement of that definition. During recent years the share has been substantially increasing.

Table 2.12. shows the development in the number of supermarkets over 6 years, delimited by the Danish definition. It may be ascertained right away that the development has been rapid with an increase in number of nearly 50 per cent and with a doubling of the sales area. A natural consequence is that the average size has grown considerably from approx. 300 $m^2$ to approx. 425 $m^2$.

Table 2.12. Supermarkets and Departmental Stores: Number1) and Size of the Sales Area 1969-74.

| | | 1/1-70 | 1/1-71 | 1/1-72 | 1/1-73 | 1/1-74 | 1/1-75 | |
|---|---|---|---|---|---|---|---|---|
| Supermarkets | Number | 649 | 705 | 748 | 811 | 867 | 918 | |
| | Total sales area $m^2$ | 194,576 | 225,086 | 254,522 | 293,497 | 343,253 | 388,119 | |
| | Average sales area $m^2$ | 300 | 313 | 340 | 362 | 396 | 423 | |
| Departmental stores | Number | 75 | 90 | 92 | 101 | 96<br>4 | 96<br>5 | Low-price departmental stores |
| | Total sales area $m^2$ | 112,587 | 144,732 | 151,570 | 181,781 | 168,325<br>51,520 | 170,135<br>70,305 | |
| | Average sales area $m^2$ | 1,501 | 1,603 | 1,648 | 1,800 | 1,753<br>12,880 | 1,772<br>14,061 | |

Source: Per Press, Supermarkeder 1970-75

1) Excl. supermarkets in variety stores

A departmental store has the full range of food products found in a supermarket plus an extensive range of non-food products. For a store to be classified as a departmental store, its non-food turnover must account for at least 20 per cent of the total turnover. As it appears from Table 2.12. the number of departmental stores has also grown during the period, viz. from 75 to 101. At the same time, the sales area has more than doubled, so within this group of retail units the average sales area has also grown substantially.

A special category of departmental stores are the low-price departmental stores, of which the first opened in 1971. They are characterised by very large sales areas - some more than 10,000 $m^2$ - a modest service, and annual turnovers of more than 100 million Dkr. At the moment, there are 7 low-price departmental stores, but more have been projected, especially in the Copenhagen area.

While the existing low-price departmental stores are located in the Copenhagen area and on the outskirts of large provincial towns, the departmental stores are primarily located in regular city areas and in major shopping centres all over the country. The supermarkets are spread all over the country, and they must be characterised largely as housing-oriented. All small towns have one supermarket, and the smaller provincial towns have more than one supermarket.

An important factor in the supermarkets' competition with speciality stores in the food sector is the establishment of regular speciality departments with service inside the various supermarkets and departmental stores. Apart from butcher's departments which are found by definition in every supermarket and departmental store, this applies to baker's departments, fish departments, and delicatessen departments plus departments for tobacco, magazines, newspapers, and spirits.

If we look at the non-food assortment of the supermarkets we can see that a number of product groups have gradually been included in the assortment. This applies primarily to textiles, kitchen utensils, household appliances, and, furthermore, tools, leather goods, and to a minor extent kitchen hardware. Cosmetics and perfumery are included in the assortment of most supermarkets and several large stores sell such articles from speciality departments with service.

To an increasing extent toys are included in the assortment of supermarkets although in many cases it is limited to a range of small plastics toys. Newspapers and/or magazines and to a limited extent picture books are included in the assortment of almost every supermarket. Finally, we may mention paint and paint brushes and records and/or tapes.

It is primarily the departmental stores, however, that enjoy large sales within the non-food area. Here, the usual assortment includes a large range of textiles for women, men, and children, everyday kitchen utensils and appliances, etc., and a number of various electric appliances plus the product groups which are being included in the assortment of the supermarkets. In the assortment of low-price departmental stores are included also some product groups which have not so far or only to a limited extent been included in the assortment of the departmental stores, such as kitchen hardware, radio and TV sets, furniture, and carpets.

The possibilities of the small supermarkets for selling non-food articles in larger quantities are limited, of course. If we compare the growing sales of non-food articles with the growth in the average size of supermarkets and departmental stores, it is obvious to assume that larger supermarkets are built in order to be able to hold a wider range of goods, i.e. more non-food articles. Other circumstances point the same way. It is relatively safe to assume that the consumption of non-food products will grow substantially more than the consumption of food products which cannot be expected to increase very much (see Table 2.1. ). Again the large stores have to base their continued existence on non-food products, especially when we take into consideration that profits within a large part of the food product groups are relatively low (see Table 2.6. ). Consequently, it is natural for supermarkets and departmental stores to look for other products groups with larger profits which fit their assortments of goods. In this way, several supermarkets will be transformed into departmental stores.

If we look at the future development in the number of supermarkets and departmental stores we have to assume that the number of supermarkets will grow also in the years to come. It is usually assumed - having an eye to the development in the USA and Sweden - that the saturation point as far as supermarkets are concerned will be reached when approx. 60 per cent of the food turnover is accounted for by supermarkets. The figure includes also supermarkets in departmental stores. It is estimated that in 1980 the supermarkets will account for 50 per cent of the total turnover of the grocery sector.

It is assumed that the number of supermarkets will continue to grow although at a more moderate rate. We must expect that the coming years will see the closing of several thousand food stores, speciality stores as well as grocery stores and co-operatives. This will also contribute to the increase in the share of the turnover accounted for by the supermarkets.

There are also supermarkets, however, that will be closed down, e.g. small supermarkets that will be transformed into superettes. This development has already begun. These stores, however, are exclusively those with a small turnover. A substantial increase in the number of superettes may also exercise a certain influence on the development, but the importance of such stores should not be exaggerated.

In short, we must expect that the number of supermarkets and their share of food sales will continue to increase quite substantially. The recent economic development has meant, however, that the saturation point will probably be reached later than originally expected; the saturation point may also be reached before the supermarkets reach 60 per cent of the food turnover.

It is not likely, however, that the number of low-price departmental stores will grow very much. The number of possible locations is limited and the authorities do not usually seem interested in fitting this type of shops into their town planning.

### 2.2.3. Centres and Formation of Centres.

A centre is defined as a concentration (geographically) of a number of institutions, e.g. retail units, financial institutions, service trades, public and private offices, etc. 3 types of centres may be distinguished: local centres, regional centres, and main centres.

(1) A local centre will include at least one supermarket, a couple of speciality stores, one branch of a bank or savings bank, a library, a medical practitioner, a cinema, a secondary school, etc. A railway town or a village will be a typical example. The clientele is purely local.

(2) A regional centre will have several speciality stores, one or more supermarkets, and, furthermore, such institutions as a hospital, a senior school, a central library, etc. A regional centre will be able to serve a surrounding area at a distance of up to 10 to 20 km, and even more in sparsely populated areas. Many large railway towns and nearly all small provincial towns may be characterised as regional centres.

(3) A main centre is designed to serve a larger region with a great number of services. There will be at least one large departmental store, a wide range of speciality stores of a high quality, and, further, several cinemas, restaurants, public institutions, etc. Only Copenhagen and the large Danish provincial towns may be characterised as main centres.

Thus, this distinction refers not only to the concentration of stores, but includes also a number of other facilities. During recent years, however, a number of regular shopping centres which cannot be classified immediately in the above way has been established. The structural development has taken place especially in these centres, while the original centres - the cities - have experienced a greater or smaller reduction in the number of stores.

Looking at the development of regular shopping centres in Denmark, it appears that they include centres with a number of shops that corresponds to that of regional and main centres.

The development of shopping centres may be illustrated on the basis of the publication by Detailhandelsinstituttet: Butikscenter Index 1974. This census is based on a study carried out during the summer of 1974. The information was collected by telephone from authorities, administrators, architects, and other key persons with special knowledge as to centres. From this publication originates Table 2.13. which provides a survey of the centres existing at that moment and their shopping areas, and also the extension plans for the following years. Since then, of course, a large part of the centre constructions in progress have been finished. This applies, for example, to the two very large centres: Amagercentret with a shopping area of approx. 15,000 $m^2$ and Høje Tåstrup Storcenter with a shopping area of approx. 41,000 $m^2$.

If we look at the sizes of the various centres it leaps to the eye immediately that roughly they fall into two groups. A numerically large group with small and relatively small centres of less than 7,000 $m^2$, and a smaller group with very large shopping areas from approx. 15,000 $m^2$ and up to approx. 41,000 $m^2$. The large centres are primarily located in the Copenhagen area, with a couple of them located on the outskirts of Århus and Odense. The small centres consist of approx. 10 to 30 stores, while the large centres may have up to 100 stores, (Lyngby Storcenter: 33,000 $m^2$ and 85 stores).

Only a minority of the planned and projected centres are large, and these centres will also be located in the Copenhagen area and Northern Zealand, while the rest is relatively small centres on the ourskirts of large towns and small city areas.

Thus, a large number of stores have been established in various centres in recent years, and in all probability this trend will continue during the next years until the structure has been fully developed in accordance with the changes in the location and situation of the population. It seems, however, as though no further large centres, with a few exceptions, will be built.

As far as the distribution of stores with everyday commodities in the various shopping centres is concerned, the large centres will usually include one or more supermarkets/departmental stores, perhaps a low-price departmental store, and a number of speciality stores like for instance a cheese shop, a fishmonger, and a wine shop. The small centres will usually include a supermarket/departmental store, and perhaps one or two speciality stores, typically a baker's shop and/or a fishmonger.

Table 2.13. The Centre Situation In Denmark, 1974.

| Shopping area | 1000-3000 $m^2$ | 3000-7000 $m^2$ | More than 7000 $m^2$ | Area not reported | Total |
|---|---|---|---|---|---|
| Existing centres | 34 | 26 | 16 |  | 76 |
| Centre constructions in progress | 11 | 4 | 2 | 3 | 20 |
| Projected constructions of centres | 6 | 4 | 0 | 0 | 10 |
| Planned centres | 10 | 9 | 4 | 13 | 36 |
| Number of centres | 61 | 43 | 22 | 16 | 142 |

Source: Butikcenter Index 1974 - Detailhandelsinstituttet

An interesting aspect of the formation of centres is their financing, because part of the investments in the large centres has been made by some of the largest Danish insurance companies and banks. These institutions are the owners of the centres, and they rent the stores to various retailers and/or chains.

The largest shopping centre in Denmark - city 2 in Tåstrup which is also the largest in Northern Europe - is exclusively owned by the insurance company Nye Danske Lloyd. The centre, whose assessment is estimated at 350 million Dkr, has been built without public loans. Nye Danske Lloyd is also involved in Rosengårdscentret at Odense, Glostrup Forretningscenter, and Vestsjællandscentret at Slagelse. The company is not sole owner of these centres, however. As far as Glostrup is concerned, it co-operates with Nordisk Genforsikring and the construction firm Kampsax A/S, in Rosengårdscentret it co-operates with Den danske Provinsbank and Købstædernes alm. Brandforsikring, and in Vestsjællandscentret at Slagelse with Privatbanken and Købstædernes alm. Brandforsikring.

The insurance company Codan is the owner of Hundige-centret, where the low-price departmental store Bilka is the largest and predominant store. This centre is assessed at 100 million Dkr.

The insurance company Baltica-Skandinavia owns 80 per cent of Lyngby Storcenter and recently it bought Gjellerup-centret at Århus for 125 million Dkr.

Amagercentret at Copenhagen, assessed at 120 million Dkr, is owned by Henrik Hoffmeyer, barrister, and the construction firm Kampsax A/S.

The construction firm J.P. Christensen is sole owner of Ballerup-centret, assessed at 70 million Dkr, and the firm is predominant investors in Hørsholm Midtpunkt.

## 2.3. The Sturcture of the Wholesale Grocery Trade

In the same way that the changes in the structure of the retail trade were largely ascribable to a few products, the structural changes within the wholesale trade may also be largely ascribed to a few factors determining the structure. Primarily, we shall deal with the structure of the retail trade and its changes as such a factor, but apart from that we also consider the technical development within the functions of the wholesale trade and the ensuing economic consequences an important factor determining the structure.

The main trends in the changes in the retail trade sturcture were:

(1) A substantial fall in the number of shops
(2) An expansion of the range of goods as to breadth as well as to depth
(3) An increase in the average turnover and sales area of the stores
(4) To a great extent the shops have introduced the self-service principle
(5) The formation of centres has been more marked.

These trends have had the following immediate consequences for the wholesale trade:

(1) Fewer but larger portions are delivered per round
(2) The wholesalers'share of the total turnover of the shops has been falling
(3) The fight about attracting the individual store as a customer has become more important
(4) A pressure from the retailers for changes in packing and marking
(5) A wish from the retailers for more convenient methods of placing orders and receiving goods.

The wholesale trade has adjusted itself to this on the following points:

(a) Storage and transport systems have been changed resulting in fewer but larger warehouses and lorries with technical equipment. At the same time a number of cash-and-carry wholesale stores to supply small customers has been established. The small stores have become fewer and more dispersed with the consequence that they have been more difficult and costly to reach with the big lorries.

(b) The wholesalers have tried to increase their share of the assortment by including a number of "new" products in their storage, transport, and order-placing systems. This applies to coffee, textiles, fruit and vegetables, wine, and refrigerated and frozen food.

(c) The wholesalers have tried to tie a number of shops closer to them by means of chain co-operation agreements, and a number of trade marks have been established. A number of shops has got a more uniform appearance.

(d) The wholesalers have taken over some of the functions of the shops, e.g. packing and marking, advertising and decoration, keeping of accounts, etc.

(e) The wholesalers have introduced new techniques in their delivery service, e.g. roller pallets and night deliveries.

This adjustment to the structural changes of the retail trade has resulted in some economic problems, however, the solution of which has again led to concentration tendencies within the wholesale trade.

A number of large-scale economies in connection with storing, packing, transport, EDP , and marketing have made it advatageous to operate with more and larger retail units. On the one hand this has led to a number of mergers, and on the other hand to a closer co-operation on the carrying out of certain functions. The mergers and the growing co-operation within the sector are described in detail in main section 4. Here we shall only mention that the economic factors have resulted in fewer firms, fewer and larger chains, which are tied more tightly to the wholesale trade, and that, recently, various wholesalers have begun to co-operate on establishing a distribution system for deep-frozen products.

# 3. Development In Concentration During the Period 1968-74 of the Danish System of Distribution of Processed Food.

## 3.1. The Concentration Measurements Employed.

The main section 2 described the Danish system of distribution of processed food. The section illustrated especially the structural development during the period 1968-74. The present main section will further illustrate the development by means of a number of concentration measurements, each referring to different aspects of a concentration phenomenon.

These concentration measurementsgive an idea of the distribution of size of the enterprises included in the trade, as we assume that size is a reasonably good indicator for the position or power of an enterprise. We can distinguish between measuremnts of absolute concentration and inequality measurements. The former is a measurement of e.g. the part of the total turnover referable to a small number of large enterprises, while the latter is a measurement for that percentage of the total number of enterprises in the trade controlling a certain percentage of e.g. the total turnover.

4 measurements for inequality will be used: the coefficient of variation, the Gini coefficient, the Herfindahl-Hirschmann index and the Entropi index, while two measurements concern absolute concentration, viz. the concentration ratio and the Linda index.

In appendix A there is a more detailed explanation of the individual concentration measurements.

### Inequality Measurements

The coefficient of variation is a measurement for the relative spreading of the various variables as it is the standard deviation divided by the mean value. This makes it also a measurement for the inequality within the trade. The smaller the coefficient of variation, the more equal are the enterprises in the trade and the lower will be 'the concentration'.

The Gini coefficient is also a measurement for spreading. It is a measurement of the degree of unequal sizes of the enterprises of the trade. If the Gini coefficient is 0, it means that all the enterprises of the trade are equal as to size. It gives no indication, however, whether there are 20 or 200 enterprises in the trade. The Gini coefficient is a summing up the information conveyed by the Lorenz curve.

The Herfindahl-Hirschmann index is a concentration measurement which takes into consideration both the number of enterprises in a trade and the inequality of size between them. Other things being equal, a larger number of enterprises in the trade and/or a larger equality will diminish the index value. As data both about inequality and number are combined, a comparison of the various index values is most likely to make sense, when the number in the trade is fairly constant.

Irrespective of the number of enterprises in the trade, the index value will approach 1000 when the largest enteprise's share of the trade approaches 100 per cent. The minimum value of the index will be reached when all enterprises are of the same size, and this limit varies with the number of enterprises.

The Entropi index is the fourth inequality measurement, and the measurement that attaches most importance to the small enterprises.

## Concentration Measurements

The concentration ratio and the Linda index belong together.

Whereas the concentration ratio gives a simple exposition of the paucity of a trade, thus giving an idea whether it as clearly dominated by a small group of enterprises, the Linda index measures the relative sizes of the enterprises for which the concentration ratio has been calculated.

The concentration ratio is obtained from the concentration curve of the trade. This curve is drawn in a system of coordinates, where the abscissa axis indicates the number of enterprises - from the largest to the smallest - while the ordinate axis indicates the cumulated percentage of the variable for the number of enterprises plotted on the abscissa axis. The height of the curve above any point x on the abscissa axis measures the percentage of the total size of the trade accounted for by the x largest enterprises - i.e. the concentration ratio.

The section contains 3 analyses, one concerning the wholesale stage and two the retail stage. In the wholesale stage analysis the various index values are calculated year by year for the period 1968-74 for the following variables: turnover, number of employees, wage bill, net profits, cash flow, value added, and equity capital. The first analysis of the retail stage concerns the firms of the sector. This analysis calculates index values for the same variables as for the wholesale stage, adding also the variable gross investments. The second analysis concerns the groups around the various chains. For these units, the only variable we can look at is turnover.

As far as the individual variables are concerned, the following points should be noticed:

Turnover is stated with deduction of V.A.T., discounts, etc.

The number of employees is stated in terms of employees on whole-year basis.

Wages and salaries are stated in terms of the actual wage bill (before taxation) including holiday allowances.

Net profits are stated in figures before taxation.

Cash flow is defined as net profits plus allowances.

For retail and wholesale firms value added equals gross profit.

The equity capital equals share capital plus reserves.

In calculating the index values for the retail sector we met a special problem ascribable to the fact that the indices as well as the method used in the EC-investigations have been worked out with the primary aim of analysing production enterprises and their trades. Therefore, the large number of units within the retail stage - 6000 to 10000 for the respective years - could not be analysed by means of existing programmes, and it turned out to be necessary to calculate only the index values for the test samples of the two analyses - 10 for the firm analysis and 15 for the chain group analysis. Evidently, this fact reduces the value of the calculations

## 3.2. The Wholesale Grocery Sector

We mentioned in section 1 that the wholesale sector for processed food has been delimited to the wholesale grocery sector. Table 3.1. shows the development in this sector for the period 1968-74. It illustrates the development in number of firms and in 6 variables. It should be noticed that some of the total variable values are based on estimates because of insufficient official statistics in this field.

A characteristic feature of the development is that the number of firms has been reduced by one half during the period, while turnover has more than doubled. In other words, the average size of the firms has increased substantially. Another characteristic feature is the development in number of employees and in the wage bill. The number of employees has grown by some 20 per cent, while wages and salaries have grown by more than 150 per cent. Thus, a few emplyees more have been able to handle a substantially increased turnover, while costs in connection with their remuneration have grown in proportion to turnover. The third characteristic trend lies in net profits/cash flow and value added, which in the distribution analyses equals gross profits, i.e. the difference between sales of goods, etc. and consumption of goods. During the period, the value added has trebled, thus growing more than turnover, while net profits and the cash flow have increased only slightly. The increased gross profits have thus been spent on increased costs of various kinds. The development in these last variables illustrates various sturctural changes in the food distribution. The increased gross profits in the wholesale stage may be considered partly payments for several functions which fell previously on the retail stage such as advertising, price-marking, accounting, packing fitting up of shops, training, etc., and in addition, various costs in connection with financing. Another reason for the increased gross profits may lie in the fact the the wholesalers have made several attempts to enlarge the assortment of goods during the period with, for instance, refrigerated goods, textiles, wine and spirits, etc. which for various reasons may produce larger profits than the traditional products. Finally, some wholesalers - especially the largest - have taken over various production functions which also entail larger gross profits.

The test sample analized consists of the 10 largest wholesale grocery firms with various subsidiaries. It should be noticed that FDB (the wholesale stage of the Co-operative Societies), which has been by far the largest unit with respect to most variables during the whole period, is included with its wholesale turnover only. The retail shops amalgamated have been isolated from the variable values for 1973 and 1974, (see section 4 for a description of the Consumers' Co-operative Societies).

Table 3.2. gives the varibale values of these 10 firms for the period 1968 to 1974 and the percentage increase in relation to the 1968 values, while Table 3.3. shows the shares of the same firms of the total variable values. It appears from these two tables that the 10 largest wholesale firms have accounted for a very large and increasing share of the various variable values during the whole period. The pattern fo the test sample is therefore to a very large extent in accordance with the pattern of the total variable values. There are a couple of interesting divergencies, however, The share of turnover has grown by more than 5 per cent and the share of value added by more than 10 per cent. This indicates that it is the predominant firms of the trade that for the reasons mentioned above have made the total value added grow by more than the other variable values.

Table 3.1. The Danish Wholesale Grocery Sector 1968-1974. Total Variable Values.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Number of firms (N) | 245 | 203 | 173 | 146 | 112 | 107 | 105 |
| Turnover (million Dkr) | 3,707 | 4,158 | 4,855 | 5,259 | 6,217 | 7,820 | 9,181 |
| 1968=100 | 100 | 112 | 130 | 141 | 167 | 210 | 247 |
| Number of employees | 4,883 | 4,951 | 5,056 | 5,050 | 5,372 | 5,862 | 5,943 |
| 1968=100 | 100 | 101 | 103 | 103 | 110 | 120 | 121 |
| Wage bill (million Dkr) | 148 | 164 | 185 | 206 | 239 | 326 | 376 |
| 1968=100 | 100 | 110 | 125 | 139 | 161 | 220 | 254 |
| Net profits (million Dkr) | 39 | 44 | 49 | 45 | 64 | 56 | 46 |
| 1968=100 | 100 | 114 | 125 | 114 | 164 | 143 | 118 |
| Cash flow (million Dkr) | 53 | 57 | 63 | 60 | 92 | 93 | 85 |
| 1968=100 | 100 | 107 | 118 | 113 | 173 | 175 | 159 |
| Value added (million Dkr) | 282 | 301 | 348 | 372 | 463 | 746 | 869 |
| 1968=100 | 100 | 106 | 123 | 131 | 164 | 264 | 308 |

Sources: Danmarks Statistik og FDB/Brugsen, and others

Table 3.2. The Danish Wholesale Grocery Sector 1968-1974. Variable Values For the Test Sample Analized ($N^*$=10).

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Turnover (million Dkr) | 3,014 | 3,426 | 3,908 | 4,414 | 5,230 | 6,742 | 7,970 |
| 1968=100 | 100 | 113 | 129 | 146 | 173 | 223 | 264 |
| Number of employees | 3,708 | 3,799 | 3,922 | 3,970 | 4,160 | 4,710 | 4,627 |
| 1968=100 | 100 | 102 | 105 | 107 | 112 | 127 | 124 |
| Wage bill (million Dkr) | 111 | 126 | 141 | 164 | 185 | 263 | 292 |
| 1968=100 | 100 | 113 | 127 | 147 | 166 | 236 | 263 |
| Net profits (million Dkr) | 32 | 37 | 39 | 38 | 56 | 48 | 39 |
| 1968=100 | 100 | 115 | 122 | 118 | 174 | 150 | 120 |
| Cash flow (million Dkr) | 44 | 47 | 51 | 50 | 80 | 80 | 72 |
| 1968=100 | 100 | 108 | 116 | 114 | 184 | 184 | 166 |
| Value added (million Dkr) | 192 | 220 | 253 | 288 | 352 | 603 | 691 |
| 1968=100 | 100 | 114 | 131 | 150 | 183 | 314 | 359 |

Table 3.3. The Danish Wholesale Grocery Sector 1968-1974. The Values of the Test Sample As A Percentage of Total Values.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Turnover | 81.3 | 82.4 | 80.5 | 83.9 | 84.1 | 86.2 | 86.8 |
| Number of empl. | 75.9 | 76.7 | 77.6 | 78.6 | 77.4 | 80.3 | 77.9 |
| Wage bill | 75.1 | 76.8 | 76.2 | 79.6 | 77.4 | 80.7 | 77.7 |
| Net profits | 82.5 | 83.6 | 80.5 | 84.9 | 87.7 | 86.6 | 84.1 |
| Cash flow | 81.9 | 82.2 | 80.4 | 83.2 | 87.2 | 86.2 | 85.7 |
| Value added | 68.1 | 73.1 | 72.7 | 77.4 | 76.0 | 80.8 | 79.5 |

Table 3.4. and the Figures 3.1. and 3.2. illustrate *the development in the inequality* of the trade for the period in question. Looking first at the coefficient of variation its development reveals a fall in the inequality. The spreading of all the variables analized has been reduced, which is clearly illustrated by Figure 3.1. The greatest reduction falls on net profits, while value added shows an increase during recent years. The pattern for the Gini coefficient and the other two inequality measurements is somewhat different. It appears from Figure 3.2. that the Gini coefficient has shown a growing tendency and, consequently, an increased inequality during the period. In other words, the area below the Lorenz curve has grown. The explanation of the distinctive difference between the coefficient of variation and the other inequality measurements lies in the fact that the remaining 105 firms do not differ so much as to size as the firms during the previous years, but that the share of the variable values in relation to the number in per cent has become more uneven.

Table 3.5. and the Figures 3.3. and 3.4. illustrate *the development in absolute concentration*. As mentioned previously the share of the 10 largest firms has grown for all the variable analized. The variables turnover and value added have experienced the largest increases, but it appears from the lowest part of the figures - the Linda curves - that the inequality between the largest of the firms has grown during the period for these two variables. As far as the variables: number of employees, net profits, and cash flow are concerned, it is especially the firms 5 to 8 which have increased their share.

Looking at the minimum values of the Linda indices - Figure 3.5. - the general picture is that the equality between the predominant wholesale firms has increased, as all variables have fallen during the period. This picture changes, however, when we look at the $L_S$-values being an average of the Linda values for test sample $\leqq n^{*}_{m}$. What increases this average, however, is the substantially increased difference between the largest firm and the following firms. As far as the medium-sized firms are concerned, their equality has been growing, which has again reduced the average.

Table 3.4. The Danish Wholesale Grocery Sector 1968-1974. The Development In the Inequality Measruements.

| Variable: Turnover | 1968 | 1971 | 1974 |
|---|---|---|---|
| Coefficient of variation (V) | 8.583 | 6.485 | 5.673 |
| Gini coefficient (G) | 0,795 | 0,807 | 0,824 |
| Herfindahl-Hirschmann (H) | 304.801 | 296.957 | 319.155 |
| Variable: Number of employees | | | |
| Coefficient of variation (V) | 7.894 | 5.946 | 4.736 |
| Gini coefficient (G) | 0,739 | 0,752 | 0,728 |
| Herfindahl-Hirschmann (H) | 258.440 | 250.755 | 225.302 |
| Variable: Net profits | | | |
| Coefficient of variation (V) | 8.843 | 6.159 | 3.228 |
| Gini coefficient (G) | 0,811 | 0,821 | 0,773 |
| Herfindahl-Hirschmann (H) | 324.601 | 268.497 | 109.800 |
| Variable: Value added | | | |
| Coefficient of variation (V) | 6.982 | 5.696 | 5.659 |
| Gini coefficient (G) | 0,659 | 0,739 | 0,751 |
| Herfindahl-Hirschmann (H) | 203.032 | 230.615 | 317.567 |

Figure 3.1. The Danish Wholesale Grocery Sector 1968-1974. The Development In the Coefficient of Variation For the Variables: Turnover (01), Number of Employees (02), Net Profits (04), and Value Added (10).

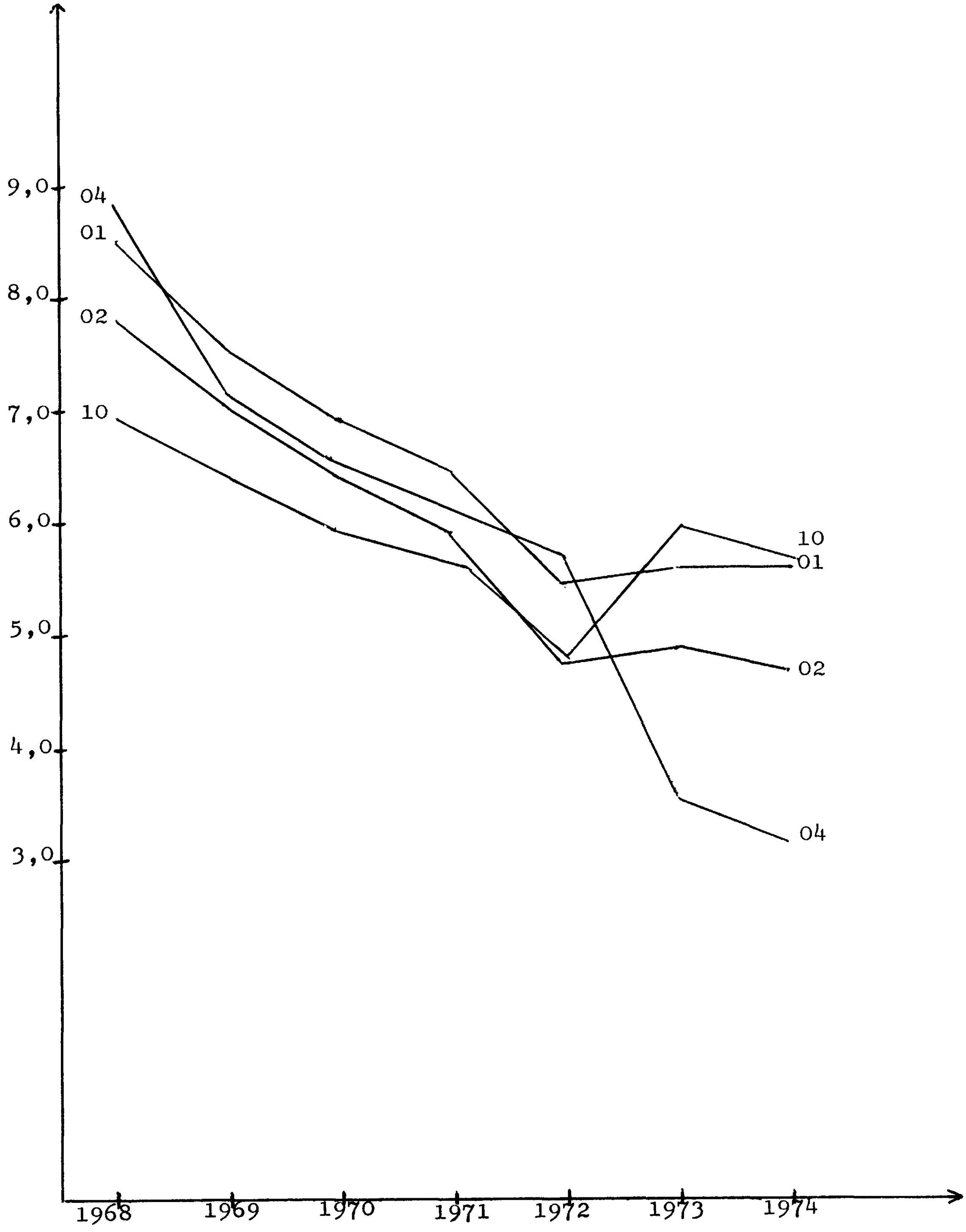

Figure 3.2. <u>The Danish Wholesale Grocery Sector 1968-1974. The Development In the Gini Coefficient For The Variables: Turnover (01), Number of Employees (02), Net Profits (04), And Value Added (10).</u>

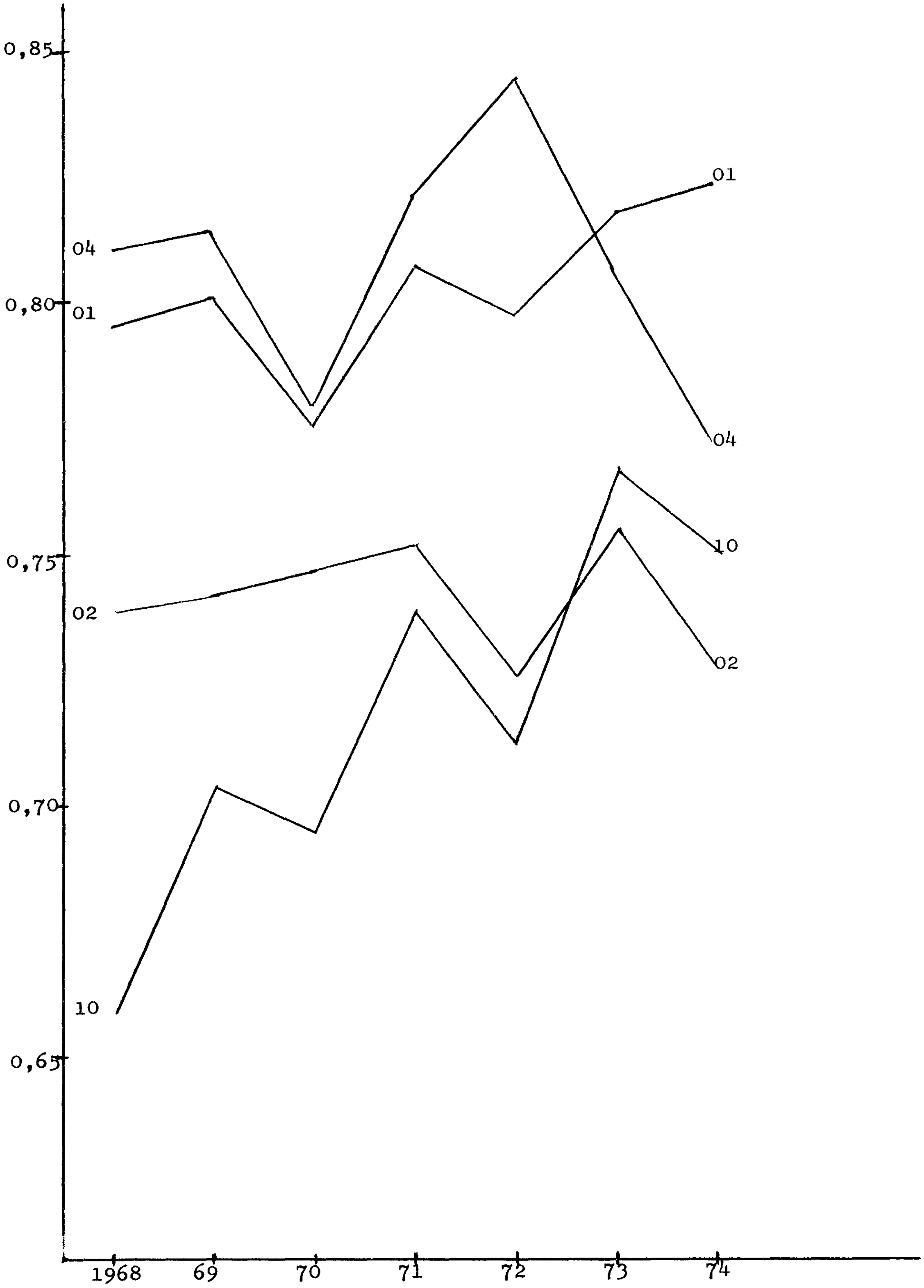

Table 3.5. The Danish Wholesale Grocery Sector 1968 and 1974. The Concentration Ratios For the Individual Variables.

| Variable: Turnover | $CR_4$ | $CR_8$ | $CR_{10}$ |
|---|---|---|---|
| 1968 | 69.95 | 79.50 | 81.31 |
| 1974 | 71.06 | 84.11 | 86.81 |
| Variable: Number of employees | | | |
| 1968 | 65.21 | 74.75 | 75.94 |
| 1974 | 63.81 | 76.43 | 77.86 |
| Variable: Wage bill | | | |
| 1968 | 65.59 | 73.70 | 75.05 |
| 1974 | 67.81 | 76.59 | 77.65 |
| Variable: Net profits | | | |
| 1968 | 77.92 | 82.28 | 83.03 |
| 1974 | 54.63 | 76.74 | 84.11 |
| Variable: Cash flow | | | |
| 1968 | 73.77 | 81.30 | 82.29 |
| 1974 | 61.52 | 80.45 | 85.65 |
| Variable: Value added | | | |
| 1968 | 59.57 | 66.67 | 68.08 |
| 1974 | 68.47 | 78.02 | 79.51 |

Figure 3.3. **Concentration Curves And Linda Curves. The Danish Wholesale Grocery Sector 1968 and 1974. Variable: Turnover.**

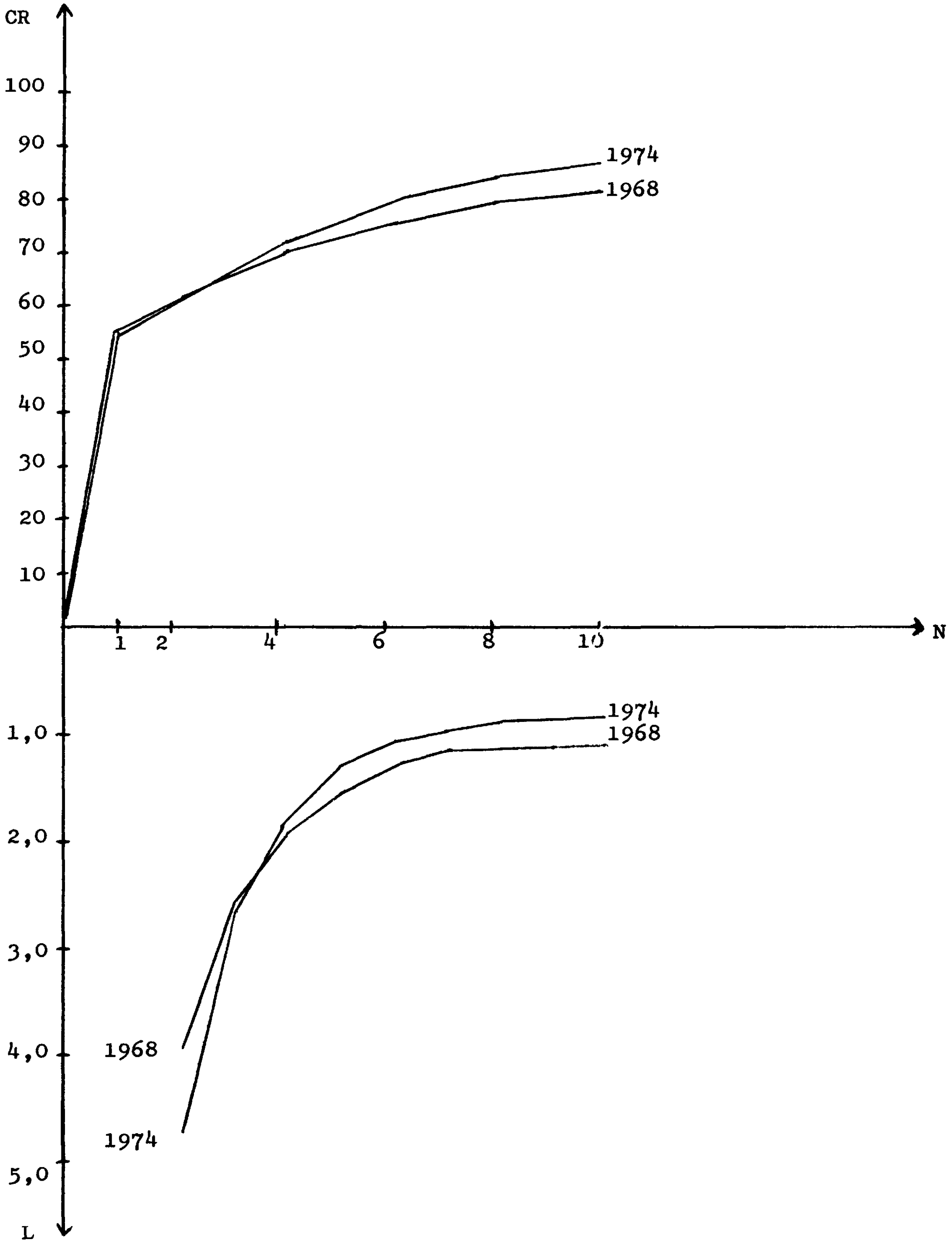

Figure 3.4. Concentration Curves And Linda Curves. The Danish Wholesale Grocery Sector 1968 and 1974. Variable: Value Added.

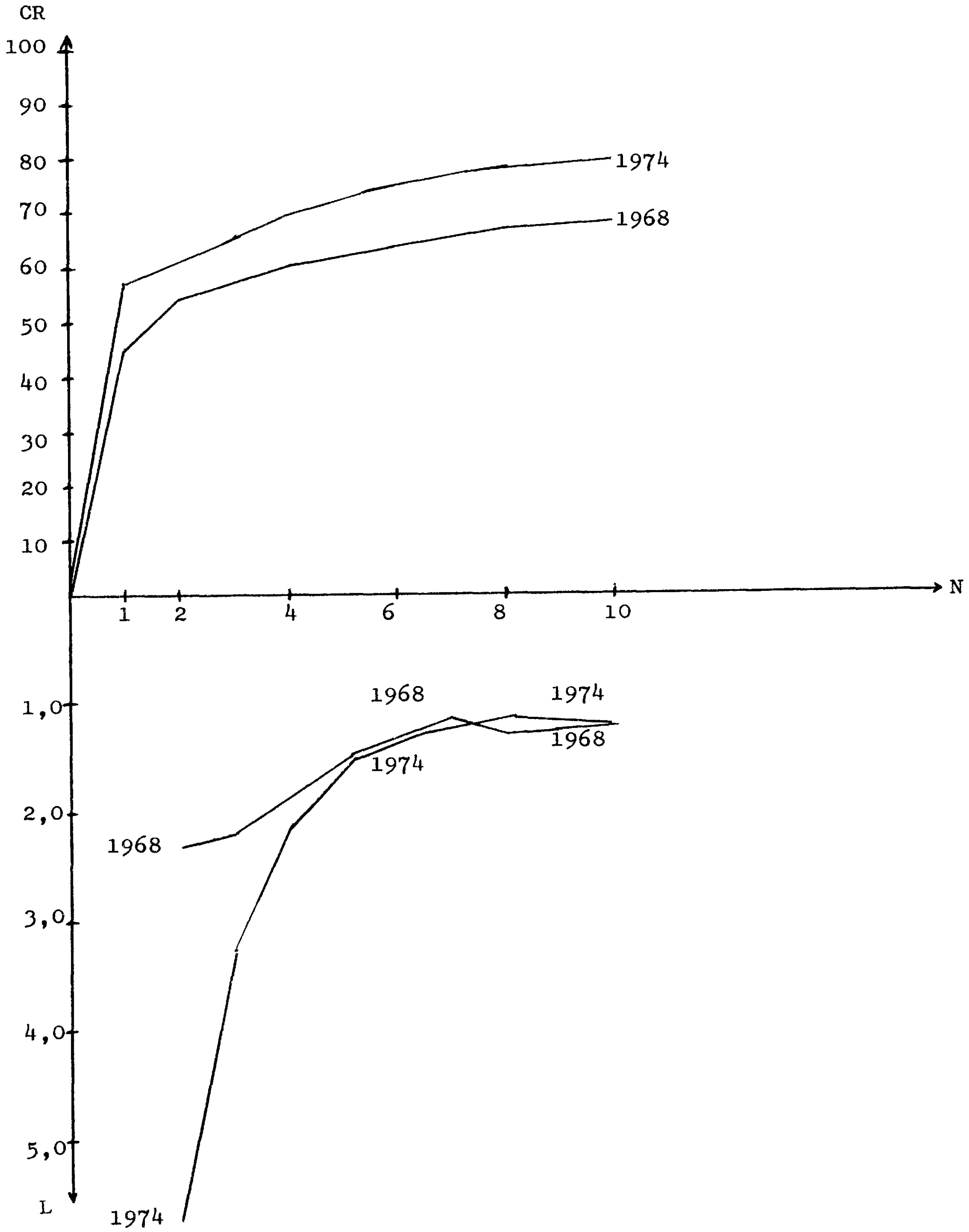

Figure 3.5. The Danish Wholesale Grocery Sector 1968-1974. The Development In the $L_S$- values. Variables: Turnover (01), Number of Employees (02), Wage Bill (03), Net Profits (04), And Value Added (10).

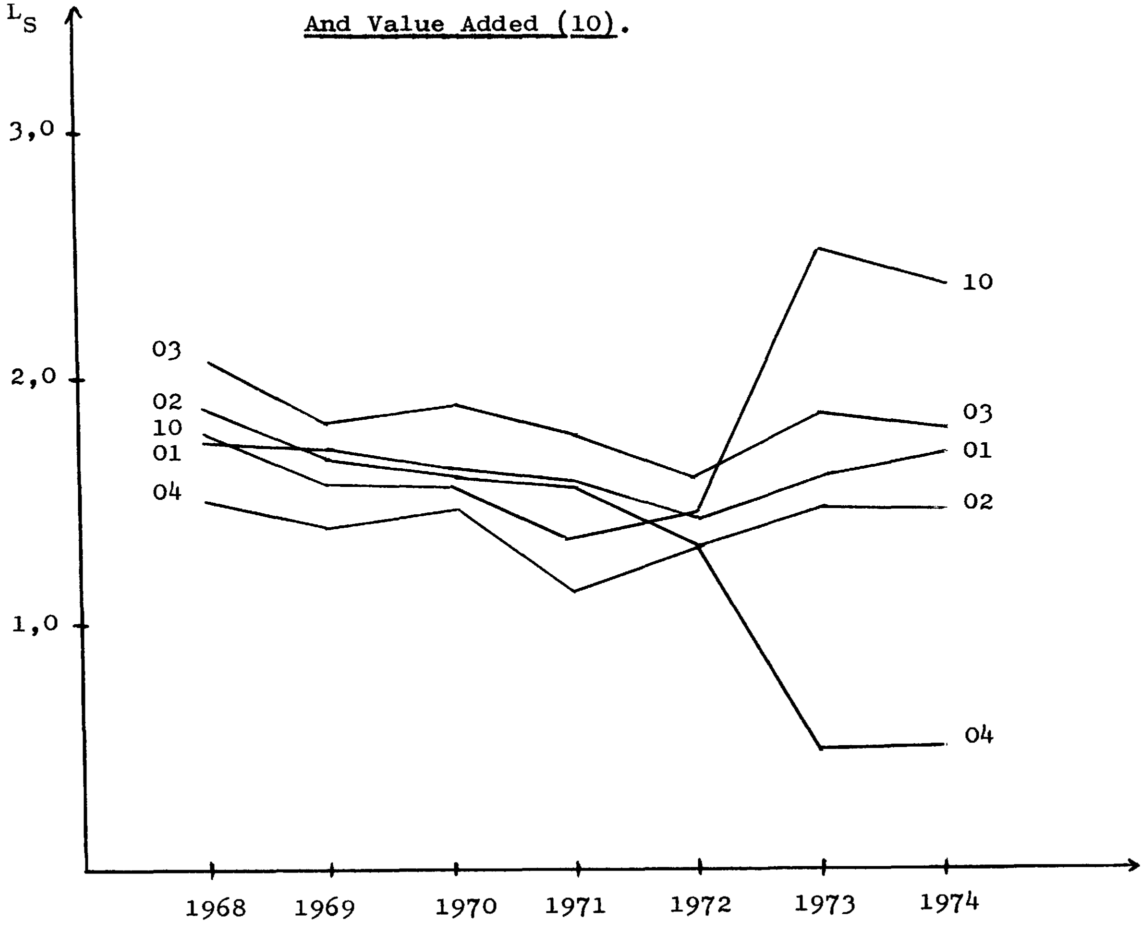

Table 3.6. The Danish Wholesale Grocery Sector 1968-1974. The Development In the Minimum Values of the Linda Indices For the Individual Variables.

| | 1968 | | 1969 | | 1970 | | 1971 | | 1972 | | 1973 | | 1974 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lmin | $n^*_m$ | Lmin | $n^*_m$ | Lmin | $n^*_m$ | Lmin | $n^*_m$ | Lmin | $n^*_m$ | Lmin | $n^*_m$ | Lmin | $n^*_m$ |
| Turnover | 1.122 | 10 | 0.937 | 9 | 0.935 | 10 | 0.885 | 10 | 0.814 | 10 | 0.855 | 10 | 0.842 | 10 |
| Number of employees | 1.066 | 7 | 0.991 | 8 | 0.996 | 8 | 0.977 | 8 | 0.745 | 8 | 0.749 | 8 | 0.765 | 8 |
| Wage bill | 1.241 | 6 | 1.132 | 8 | 1.197 | 7 | 1,107 | 8 | 0.924 | 8 | 1.151 | 8 | 1.106 | 8 |
| Net profits | 1.500 | 2 | 1.182 | 8 | 1.300 | 7 | 1.117 | 2 | 1.331 | 2 | 0.377 | 3 | 0.293 | 10 |
| Cash flow | 1.353 | 7 | 1.023 | 7 | 1.090 | 8 | 0.827 | 9 | 1.231 | 7 | 0.502 | 8 | 0.415 | 9 |
| Equity capital | 2.591 | 10 | 2.656 | 10 | 2.575 | 10 | 2.254 | 9 | 1.966 | 9 | 1.740 | 8 | 1.548 | 9 |
| Value added | 1.176 | 7 | 0.958 | 7 | 1.006 | 7 | 0.920 | 10 | 0.878 | 8 | 1.359 | 8 | 1.154 | 8 |

## 3.3. The Retail Grocery Sector - The Co-operative Societies And the Largest Regular Chains

The analysis of the retail stage for processed food is also delimited to the grocery sector. Main section 2 provided an illustration of the development in the shop structure and partly of the development in consumption. It appeared, among other things, that the number of shops has been substantially reduced during the period. Table 3.7. shows the development in the total values of the 7 variables. It appears that the turnover, despite the reduced number of shops, has more than doubled, while the number of employees has fallen slightly (by approx. 5000). Wages have developed in the same way as in the wholesale trade. Net profits and cash flow have nearly doubled at the retail stage, while value added has grown by almost 150 per cent. Compared with the wholesale stage the increase in value added is more moderate, and it has not been spent to the same extent on increased costs. Gross investments have grown the most during the period. This is not surprising keeping in mind the development in the number of supermarkets and departmental stores described in section 2.

The analised test sample consists of the consumers' co-operative societies and the 9 largest regular chains. The variable values for this section of the sector appear from Table 3.8. and the test sample values as a percentage of the total variable values - corresponding to $CR_{10}$ - appear from Table 3.9. . Apart from the turnover share, which has grown slightly during the period, and the number of employees whose share has increased by 7 per cent, there has been a general fall in shares. The independent grocers - including voluntary chains of various kinds - have thus more than maintained their position, so in this respect, the period has seen no increased integration.

It is natural that the test sample's share of the number of employees has grown, because it is with these units that the expansion of the staff-demanding departmental stores has taken place. In return, it may seem surprising that the share of the wage bill has fallen. This may be due partly to the fact that the staff of the departmental stores may be lower paid than the other staff groups, but the main reason is probably a shift in the staff composition with the independent grocers. The shops closed down during the period were mainly very small ones, and the staff consisted primarily of the proprietor and perhaps his wife. The remuneration of the proprietor is not included in the variable wage bill, but in net profits. Simultaneously with the closing down of these many small shops, the other shops have had to take on more staff, whose wages are included in the variable value wage bill with the consequence that the test sample's share of the total variable value has fallen.

The development in absolute concentration for three variables is shown in Table 3.1o. and Figure 3.6.. The total picture is a fall in absolute concentration. It appears from the curves as well as the tables, that it is the largest unit - the co-operatives - that has had a falling share of the total variable values.

If we look at the situation within the section in question, it appears from Table 3.11. and the Figures 3.7. and 3.8. that the inequality within most variables has been reduced during the period. As far as the variables net profits and gross investments are concerned there have been substantial fluctuations as well as increases. As far as the coefficient of variation is concerned the development has been very stable.

The Linda index values for the test sample are illustrated in Figure 3.9. and Table 3.12.. The curves for the $L_S$-values show primarily a fall during the period indicating that the equality among the predominant units, has grown. The minimum values of the Linda index, $L_{min}$, also show a fall for most variables. The variables net profits and gross investments are exceptions. It appears from the $n_m^*$-values that the situation around the predominant enterprises has been stabilised during the last couple of years. It is now the 3 or 4 largest units which are the most important competitors within all variables.

Table 3.7. The Danish Retail Grocery Trade 1968-1974. Total Variable Values.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Turnover (million Dkr) | 10,783 | 11,564 | 12,401 | 14,006 | 15,809 | 20,480 | 24,110 |
| 1968=100 | 100 | 107 | 115 | 130 | 147 | 190 | 224 |
| Number of employees (1000) | 56,8 | 55,9 | 54,7 | 54,2 | 52,8 | 51,6 | 51,5 |
| 1968=100 | 100 | 98 | 96 | 95 | 93 | 91 | 91 |
| Wage bill (million Dkr) | 673 | 743 | 864 | 1023 | 1147 | 1488 | 1789 |
| 1968=100 | 110 | 110 | 128 | 152 | 170 | 221 | 266 |
| Net profits (million Dkr) | 382 | 422 | 392 | 416 | 502 | 722 | 749 |
| 1968=100 | 100 | 110 | 103 | 109 | 131 | 189 | 196 |
| Cash flow (million Dkr) | 471 | 501 | 488 | 530 | 623 | 874 | 920 |
| 1968=100 | 100 | 106 | 104 | 113 | 132 | 186 | 195 |
| Gross investments (million Dkr) | 165 | 207 | 263 | 275 | 346 | 403 | 461 |
| 1968=100 | 100 | 125 | 159 | 167 | 210 | 244 | 279 |
| Value added (million Dkr) | 1,576 | 1,750 | 2,060 | 2,359 | 2,690 | 3,374 | 3,915 |
| 1968=100 | 100 | 111 | 131 | 150 | 171 | 214 | 248 |

Table 3.8. The Danish Retail Grocery Trade 1968-1974. Variable Values For The Test Sample (N =10).

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Turnover (million Dkr) | 4,565 | 5,060 | 5,753 | 6,602 | 7,639 | 8,966 | 10,387 |
| 1968=100 | 100 | 110 | 126 | 144 | 167 | 196 | 227 |
| Number of employees (1000) | 19,5 | 20,0 | 20,5 | 20,8 | 21,1 | 20,4 | 21,2 |
| 1968=100 | 100 | 102 | 105 | 106 | 108 | 104 | 108 |
| Wage bill (million Dkr) | 387 | 430 | 489 | 568 | 631 | 742 | 897 |
| 1968=100 | 100 | 111 | 126 | 146 | 163 | 191 | 231 |
| Net profits (million Dkr) | 94 | 101 | 105 | 98 | 287 | 177 | 158 |
| 1968=100 | 100 | 107 | 112 | 105 | 306 | 189 | 168 |
| Cash flow (million Dkr) | 137 | 144 | 156 | 157 | 209 | 264 | 251 |
| 1968=100 | 100 | 105 | 114 | 114 | 152 | 192 | 183 |
| Gross investments (million Dkr) | 100 | 135 | 175 | 152 | 170 | 213 | 224 |
| 1968=100 | 100 | 135 | 175 | 152 | 170 | 213 | 224 |
| Value Added (million Dkr) | 751 | 841 | 957 | 1,104 | 1,266 | 1,509 | 1,728 |
| 1968=100 | 100 | 111 | 127 | 147 | 168 | 200 | 230 |
| Equity capital (million Dkr) | 576 | 653 | 727 | 760 | 803 | 885 | 861 |
| 1968=100 | 100 | 113 | 126 | 131 | 139 | 159 | 149 |

Table 3.9. The Danish Retail Grocery Trade 1968-1974. Test Sample Values As A Percentage of Total Variable Values.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Turnover | 42.3 | 43.8 | 46.4 | 47.1 | 48.3 | 43.8 | 43.1 |
| Number of employees | 34.3 | 35.8 | 37.5 | 38.4 | 40.0 | 39.5 | 41.2 |
| Wage bill | 57.5 | 57.9 | 56.6 | 55.5 | 55.0 | 49.9 | 50.1 |
| Net profits | 24.6 | 23.9 | 26.8 | 23.5 | 57.2 | 24.5 | 21.1 |
| Cash flow | 29.1 | 28.7 | 32.0 | 29.6 | 33.5 | 30.2 | 27.3 |
| Gross investments | 60.6 | 65.2 | 66.5 | 55.3 | 49.1 | 52.9 | 48.6 |
| Value added | 47.7 | 48.1 | 46.5 | 46.8 | 47.1 | 47.7 | 44.2 |

Table 3.1o. The Danish Retail Grocery Trade 1968-1974. The Concentration Ratios. Variables: Turnover, Wage bill, and Value added.

| Turnover | $CR_1$ | $CR_2$ | $CR_4$ | $CR_6$ | $CR_8$ | $CR_{10}$ |
|---|---|---|---|---|---|---|
| 1968 | 32.3 | 37.4 | 40.5 | 41.6 | 42.1 | 42.3 |
| 1974 | 28.6 | 34.0 | 40.6 | 42.2 | 42.8 | 43.1 |
| Wage bill | | | | | | |
| 1968 | 37.7 | 48.9 | 54.2 | 56.5 | 57.2 | 57.5 |
| 1974 | 28.9 | 38.1 | 47.1 | 49.1 | 49.7 | 50.1 |
| Value added | | | | | | |
| 1968 | 33.6 | 41.1 | 44.9 | 46.7 | 47.3 | 47.7 |
| 1974 | 25.1 | 32.1 | 41.3 | 43.2 | 43.6 | 44.2 |

Figure 3.6. The Danish Retail Grocery Trade 1968-1974. The Concentration Curves.

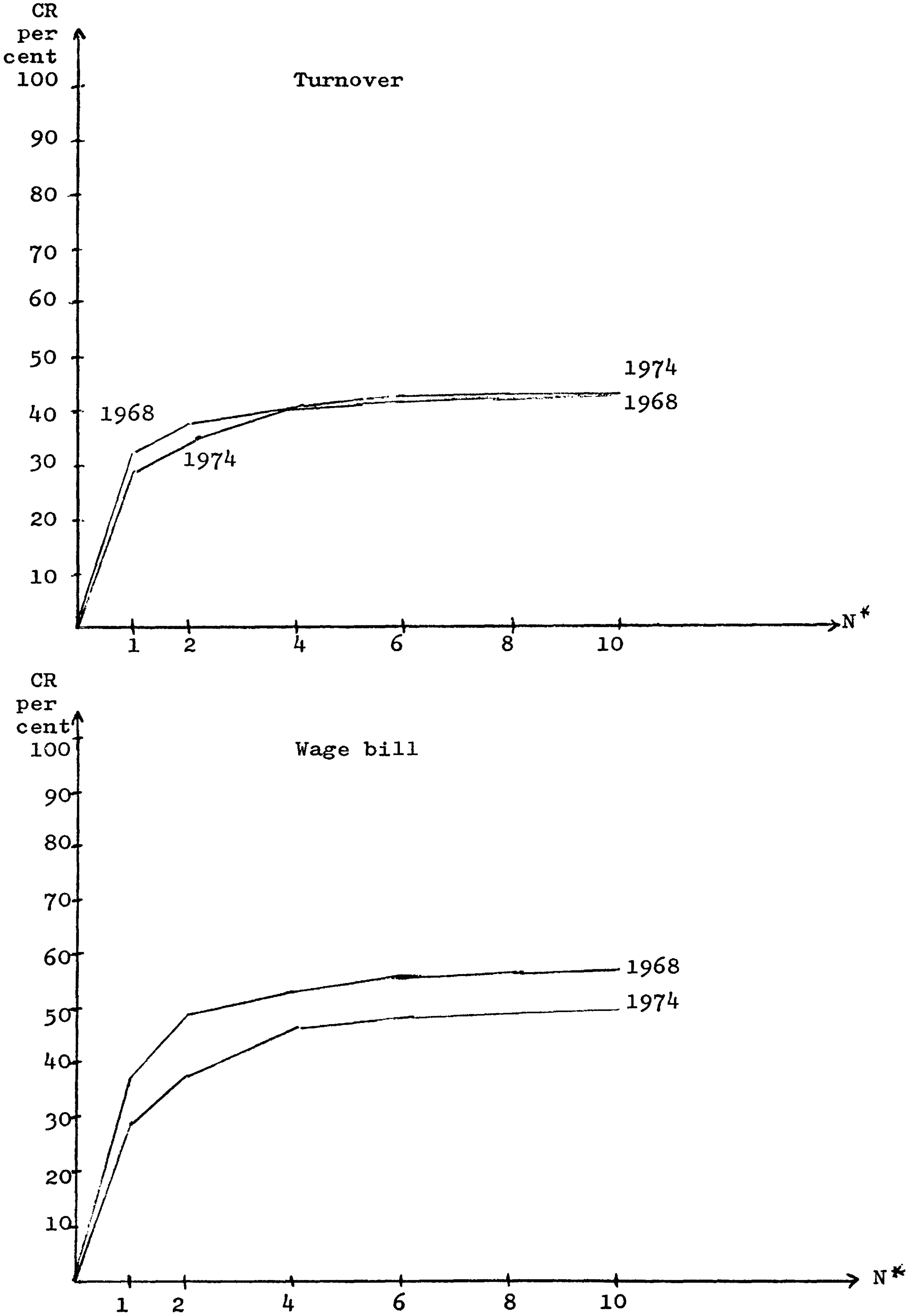

Figure 3.6. The Danish Retail Grocery Trade 1968-1974. The Concentration Curves.

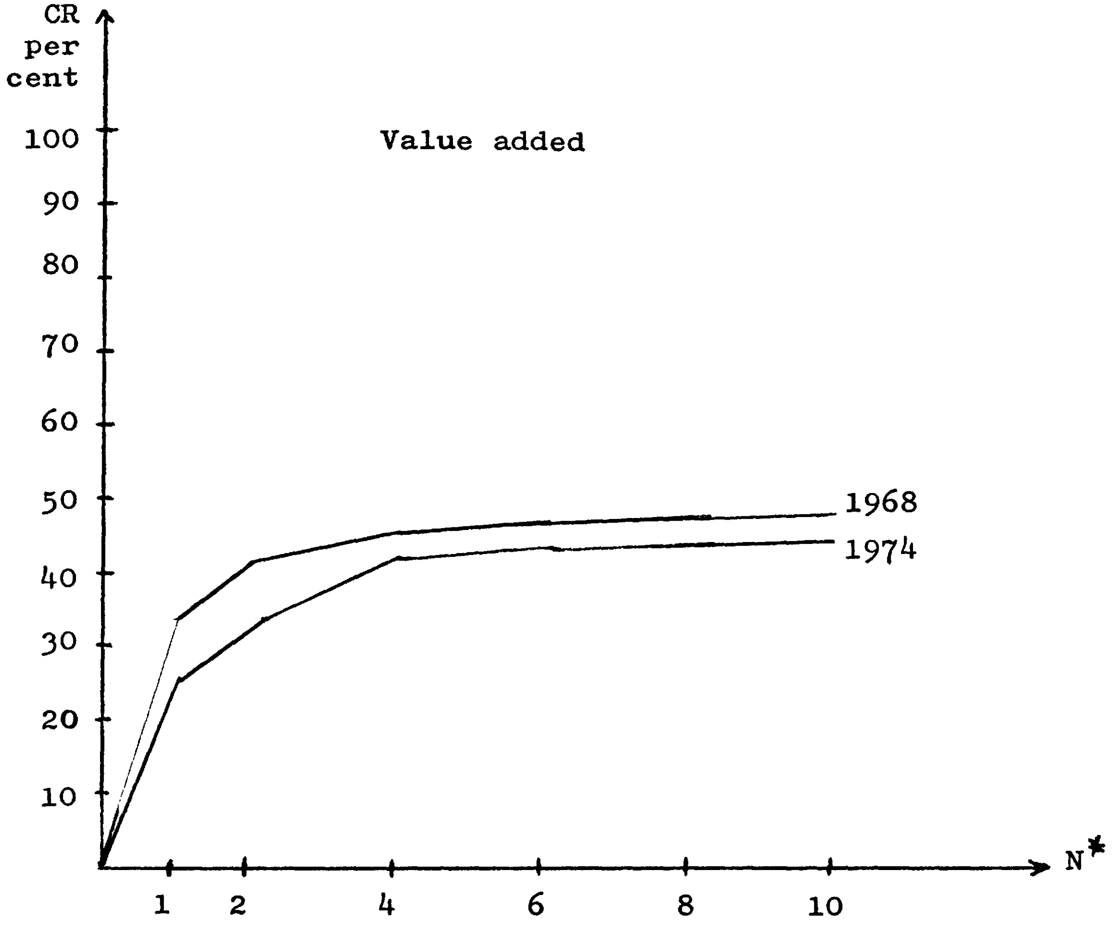

Table 3.11. The Danish Retail Grocery Sector 1968-1974. The Development In the Inequality Measurements For the Various Variables For the Largest Firms.

| Variable: Turnover | 1968 | 1971 | 1974 |
|---|---|---|---|
| Coefficient of variation | 2,367 | 2,215 | 2,047 |
| The Gini coefficient | 0,813 | 0,777 | 0,766 |
| Herfindahl-Hirschmann | 600,265 | 537,097 | 471,816 |
| The Entropi index | -39,201 | -46,189 | -50,601 |
| Variable: Number of employees | | | |
| Coefficient of variation | 2,167 | 1,958 | 1,641 |
| The Gini coefficient | 0,783 | 0,745 | 0,713 |
| Herfindahl-Hirschmann | 517,731 | 439,488 | 335,688 |
| The Entropi index | -46,744 | -54,532 | -61,841 |
| Variable: Net profits | | | |
| Coefficient of variation | 2,357 | 2,434 | 2,691 |
| The Gini coefficient | 0,840 | 0,834 | 0,862 |
| Herfindahl-Hirschmann | 728,294 | 769,366 | 824,261 |
| The Entropi index | -24,327 | -23,631 | -19,075 |
| Variable: Gross investments | | | |
| Coefficient of variation | 1,786 | 1,838 | 2,061 |
| The Gini coefficient | 0,740 | 0,741 | 0,796 |
| Herfindahl-Hirschmann | 380,887 | 397,999 | 477,184 |
| The Entropi index | -57,153 | -56,400 | -46,033 |
| Variable: Value added | | | |
| Coefficient of variation | 2,187 | 1,947 | 1,765 |
| The Gini coefficient | 0,790 | 0,737 | 0,729 |
| Herfindahl-Hirschmann | 525,606 | 435,453 | 373,969 |
| The Entropi index | -45,313 | -55,246 | -58,610 |

**Figure 3.7.** The Danish Retail Grocery Trade 1968-1974. The Gini Coefficient For the 10 Largest Firms. Variables: Turnover (01), Number of Employees(02), Net Profits (04), Gross Investments (06), and Value Added (10).

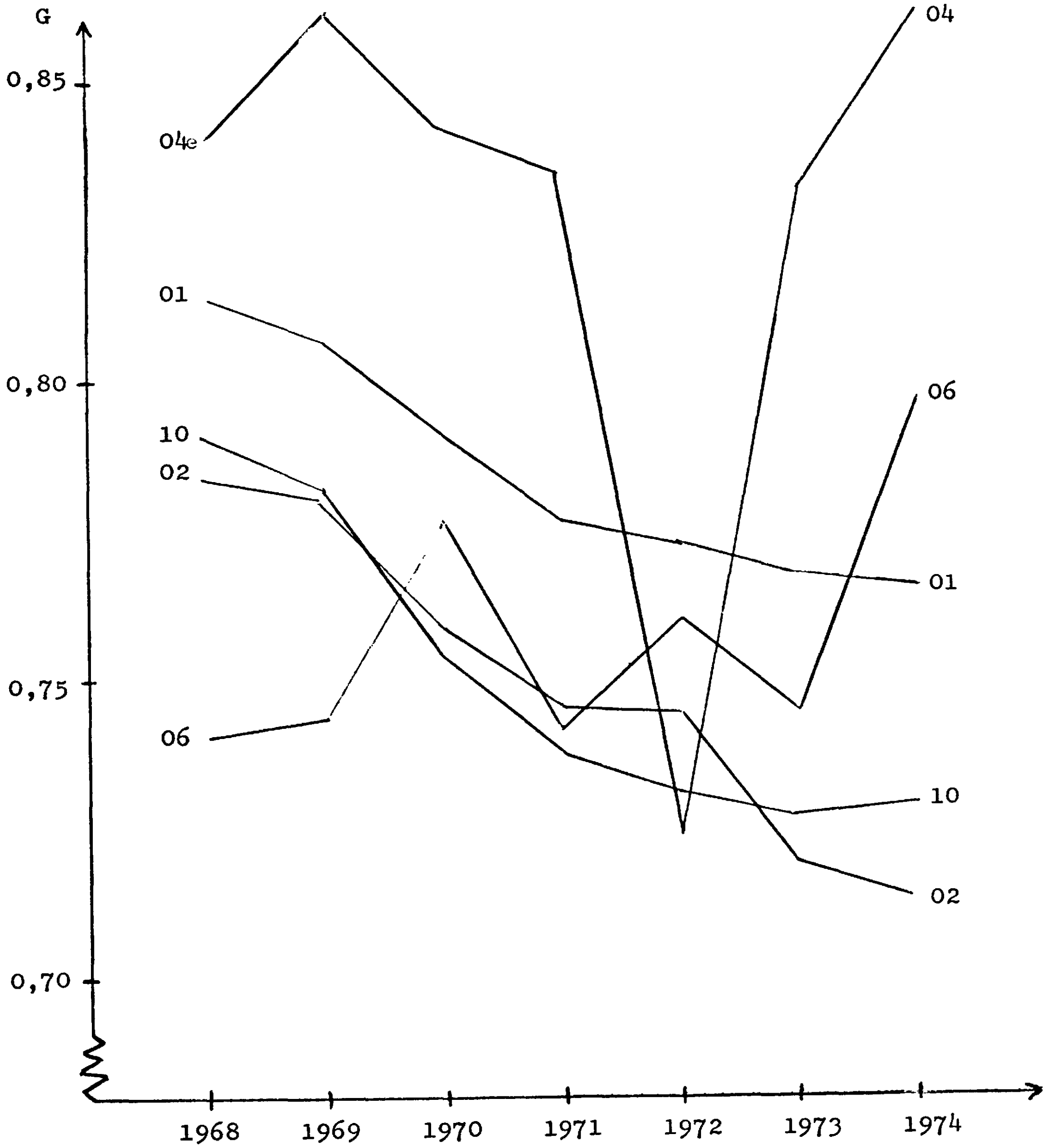

Figure 3.8. The Danish Retail Grocery Trade 1968-1974. Coefficient of Variation For the 10 Largest Firms.
Variables: Turnover (01), Number of Employees (02), Gross Investments (06), and Net Profits (04).

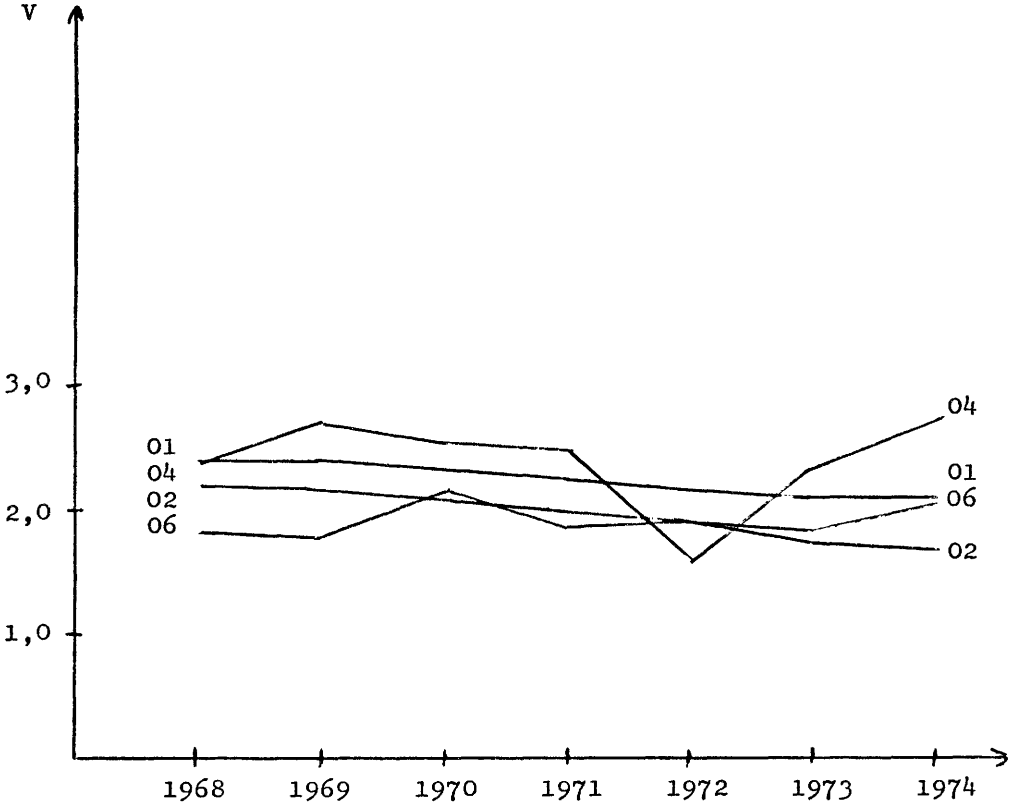

**Figure** 3.9. The 10 Largest Units Within the Retail Grocery Trade 1968-1974. The Development In the $L_S$-Values. Variables: Turnover (01), Number of Employees (02), Wage Bill (03), Gross Investments (06), and Value Added (10).

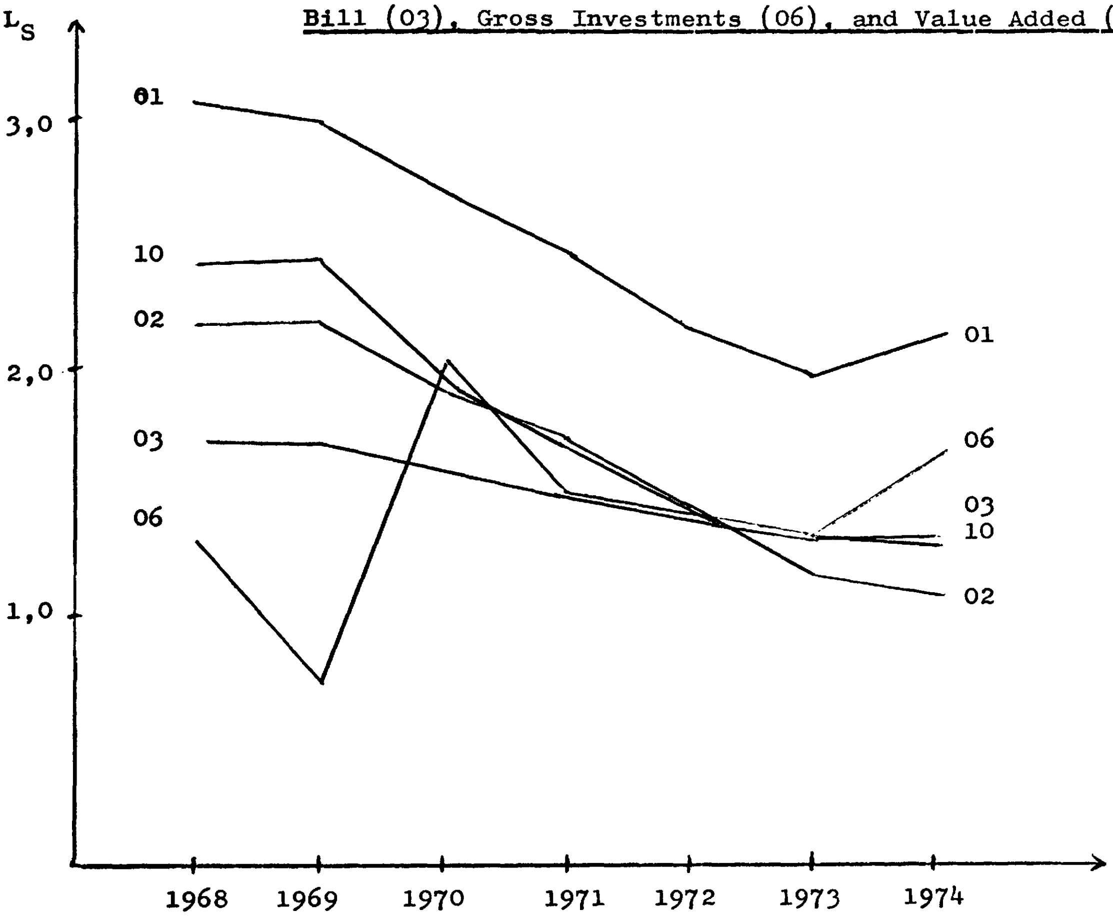

Table 3.12. The 10 Largest Units Within the Retail Grocery Trade 1968-1974.

The Development In the Minimum Values of the Linda Index For the Various Variables.

| | 1968 | | 1969 | | 1970 | | 1971 | | 1972 | | 1973 | | 1974 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lmin | $n_m$ | Lmin | $n_m$ | Lmin | $n_m$ | Lmin | $n_m$ | Lmin | $n_m$ | Lmin | $n_m$ | Lmin | $n_m$ |
| Turnover | 2,892 | 5 | 2,729 | 7 | 2,174 | 7 | 1,799 | 7 | 1,653 | 4 | 1,548 | 4 | 1,564 | 3 |
| Number of employees | 1,874 | 6 | 1,908 | 3 | 1,595 | 7 | 1,441 | 7 | 1,160 | 4 | 0,977 | 4 | 0,915 | 4 |
| Wage bill | 1,693 | 2 | 1,681 | 2 | 1,439 | 7 | 1,380 | 7 | 1,206 | 4 | 1,063 | 4 | 1,109 | 4 |
| Net profits | 3,591 | 2 | 6,693 | 5 | 4,450 | 2 | 4,783 | 3 | 0,468 | 3 | 2,565 | 2 | 6,888 | 3? |
| Cash flow | 2,595 | 2 | 4,321 | 2 | 2,783 | 2 | 3,053 | 3 | 2,402 | 3 | 1,965 | 3 | 2,226 | 3 |
| Gross investments | 1,093 | 5 | 0,733 | 2 | 1,476 | 5 | 1,146 | 3 | 1,110 | 3 | 0,921 | 4 | 1,415 | 3 |
| Equity capital | 4,186 | 3 | 4,678 | 3 | 3,528 | 3 | 3,068 | 5 | 2,157 | 4 | 2,597 | 3 | 2,569 | 3 |
| Value added | 2,215 | 6 | 2,081 | 6 | 1,555 | 7 | 1,330 | 7 | 1,014 | 4 | 0,959 | 4 | 1,014 | 4 |

## 3.4. The Chain-affiliated Groups.

As mentioned previously, the analysis includes the largest chains within retailing of processed food - whether the chains involved are regular chains, the Co-operative Societies, or voluntary chains. The only variable is turnover. The figures indicating the turnover of the voluntary chains are estimated on the basis of statements from the wholesale stage and its turnover.

Table 3.13. shows the development in turnover during the period. It appears from the table that the turnover of the 14 largest chains has increased by 175 per cent from 6,325 million Dkr to 17,410 million Dkr during the period, while the total turnover has increased by 124 per cent only. It also appears that the turnover of other supermarkets and shops has grown by 50 per cent only during the same period. It should be noticed, however, that the whole of this increase has occurred during the last two years. This is of course ascribable to the fact that the total number of shops has been substantially reduced, while the number of chain-affiliated shops has increased. The increase in the number of supermarkets and department stores has also occurred within the chains with the exception of the last two years.

It follows from these observations that the absolute concentration has grown during the period under consideration. This also appears from Table 3.14. showing the development in the various concentration ratios and from Figure 3.1o. showing the concentration curves for 1968 and 1974.

$CR_1$ indicating the market share of the Co-operative Societies, has fallen during the period by a little less than 4 per cent from 32.3 per cent to 28.6 per cent, while all the other concentration ratios have grown. The development most marked has occurred within the eight largest chains, the difference between $CR_1$ and $CR_8$ having grown from 23.6 in 1968 to 38.6 in 1974, while the differences between the last three concentration ratios are still relatively small.

This development is also clearly demonstrated by the concentration curve. Thus, the eight largest chain groups have strenghtened their position. It is interesting, however, that their market share has fallen during the last two years by nearly 5 per cent. This reduction falls on the Co-operative Societies, while the share of the other chains is stagnant. At the same time, the share of the other shops has grown by these 5 per cent, of course. During the last couple of years the number of supermarkets without any chain-affiliation has grown, and we must assume, furthermore, that the remaining 4000 non-affiliated shops are the most viable of this kind. Many of the small and unprofitable shops have been closed down. Part of the explanation why the market share of the Co-operative Societies has been reduced may lie in the fact that the grocery stores have expanded their assortment of goods and that a number of small co-ops have been closed down.

The development in the Linda index values within the test sample (14) shows that the maximum value has been for $N^*$ = 2 during the whole period. The value has been falling, however, which again illustrates that the Co-operative Societies are not as predominant as before. As far as the minimum values are concerned they lie between $N^*$ = 7 to 10. This illustrates that the market is dominated by the largest 7 to 9 chains. During the period the minimum value has been reduced by more than one half. In other words, the predominant chains have become more equal. This is also underlined by the falling average $L_S$ from 1.16045 in 1968 to 0.83208 in 1975, (see Table 3.15.). With respect to the inequality in the whole test sample, we can also here ascertain a diminished inequality. All the inequality measurements show falling values during the period, (see Table 3.17.).

### Table 3.13. Development In Turnover 1968-74 For the Most Important Retail Groups.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| Total turnover | 10,783 | 11,564 | 12,401 | 14,006 | 15,809 | 20,480 | 24,110 |
| 1968=100 | 100 | 107 | 115 | 130 | 147 | 190 | 224 |
| Turnover for $N^{+}$=14 | 6,325 | 7,045 | 8,934 | 10,553 | 12,466 | 14,817 | 17,410 |
| 1968=100 | 100 | 111 | 141 | 166 | 197 | 234 | 275 |
| Other supermarkets | 635 | 678 | 649 | 688 | 533 | 695 | 950 |
| 1968=100 | 100 | 107 | 102 | 108 | 84 | 109 | 150 |
| Other shops | 3,823 | 3,841 | 2,818 | 2,765 | 2,810 | 4,968 | 5,750 |
| 1968=100 | 100 | 100 | 74 | 72 | 74 | 130 | 150 |

Table 3.14. Development In Concentration Ratios For the Chain-affiliated Groups. Variable: Turnover.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| $CR_1$ | 32.30 | 33.22 | 34.21 | 33.84 | 33.14 | 29.27 | 28.63 |
| $CR_4$ | 47.93 | 49.30 | 51.76 | 53.25 | 52.75 | 47.83 | 48.65 |
| $CR_8$ | 55.95 | 57.87 | 66.64 | 69.21 | 72.14 | 66.40 | 67.21 |
| $CR_{10}$ | 57.68 | 59.63 | 69.39 | 72.06 | 76.32 | 70.14 | 70.66 |
| $CR_{12}$ | 58.37 | 60.58 | 71.03 | 74.18 | 78.27 | 71.87 | 71.71 |
| $CR_{14}$ | 58.65 | 60.92 | 72.04 | 75.34 | 78.85 | 72.34 | 72.21 |
| Total variable value - million Dkr | 10,783 | 11,564 | 12,401 | 14,006 | 15,809 | 20,480 | 24,110 |
| Number of units | 8,637 | 8,040 | 6,524 | 5,981 | 5,246 | 4,711 | 4,417 |

Figure 3.10. Concentration Curves 1968 and 1974 For the Chain-affiliated Groups. Variable: Turnover.

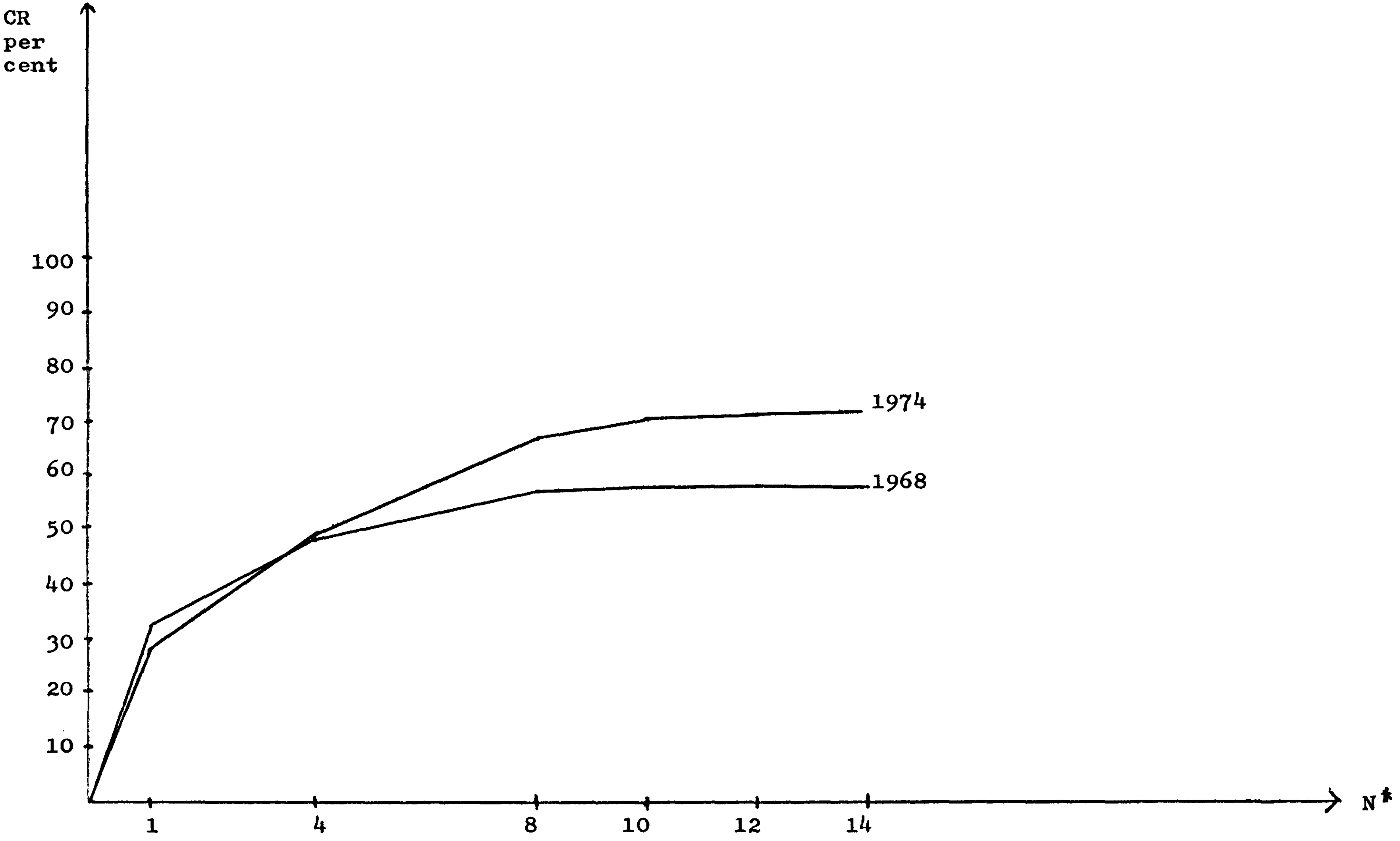

**Table** 3.15. Development In the Minimum Value For the Linda Index and In the Average $L_S$ For the Chain-affiliated Grups 1968-1974.
Variable: Turnover.

| | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| $L_{N^*_M}$ | 0,81970 | 0,80151 | 0,54025 | 0,51171 | 0,40739 | 0,37792 | 0,37530 |
| $N^*_M$ | 10 | 8 | 9 | 7 | 9 | 8 | 8 |
| $L_S$ | 1,16045 | 1,24994 | 1,02046 | 1,07666 | 0,87934 | 0,90810 | 0,83208 |

Table 3.16. Development In the Linda Index Values 1968-1974 For the Chain-affiliated Groups. Variable: Turnover.

| N* | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|
| 2 | 2,38562 | 2,43165 | 2,49588 | 2,25714 | 2,27826 | 2,30615 | 1.95803 |
| 3 | 1,53608 | 1,54755 | 1,48202 | 1,37965 | 1,34490 | 1,23641 | 1,15401 |
| 4 | 1,21550 | 1,19369 | 1,07695 | 0,95643 | 0,91174 | 0,83666 | 0,78289 |
| 5 | 1,03119 | 0,97820 | 0,81402 | 0,74187 | 0,66648 | 0,62798 | 0,60977 |
| 6 | 0,95062 | 0,93159 | 0,65376 | 0,61318 | 0,54715 | 0,52697 | 0,51004 |
| 7 | 0,85250 | 0,86540 | 0,55765 | 0,51171 | 0,46412 | 0,44460 | 0,43450 |
| 8 | 0,83206 | 0,80151 | 0,54317 | 0,51240 | 0,41471 | 0,37792 | 0,37530 |
| 9 | 0,82075 | 0,81198 | 0,54025 | 0,51826 | 0,40739 | 0,38491 | 0,39676 |
| 10 | 0,81970 | 0,80467 | 0,57301 | 0,54780 | 0,42406 | 0,40275 | 0,41101 |
| 11 | 0,89746 | 0,83304 | 0,59051 | 0,54897 | 0,46179 | 0,45051 | 0,47718 |
| 12 | 0,99955 | 0,89116 | 0,60243 | 0,53346 | 0,48364 | 0,47150 | 0,67380 |
| 13 | 1,22104 | 1,07352 | 0,61062 | 0,53609 | 0,61620 | 0,64298 | 0,79581 |
| 14 | 1,32474 | 1,15800 | 0,67179 | 0,62325 | 0,73605 | 0,74552 | 0,85422 |

Table 3.17. Development In the Various Inequality Measurements Within the Test Sample $N^{*}=14$. Variable: Turnover.

| | | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|---|
| Coefficient of variation | V | 2,002 | 1,979 | 1,694 | 1,600 | 1,490 | 1,435 | 1,419 |
| The Gini coefficient | G | 0,717 | 0,709 | 0,630 | 0,613 | 0,588 | 0,579 | 0,591 |
| Herfindahl-Hirschmann | H | 333,844 | 327,741 | 258,145 | 237,384 | 214,718 | 204,034 | 200,979 |
| The Entropi index | E | -71,032 | -72,128 | -82,055 | -84,609 | -87,152 | -88,252 | -87,622 |

# 4. A Qualitative Description of the Danish Distribution of Processed Food.

## 4.1. Predominant Firms and Groups Within the Grocery Distribution.

The Danish grocery distribution is to a very large extent dominated by chains, but the types of chains are somewhat different. Roughly, they can be divided into three groups:

The Consumers' Co-operative Societies
The regular chains
The voluntary chains.

The Danish Consumers' Co-operative Societies, ("Brugsen"), run a chain of department stores - Anva - which will not be included in the analysis, but apart from that they consist of a regular chain - DB-Brugsen - owned by the wholesale level (FDB) and of a number of independent co-operative societies. In the concentration analysis, the retail level of the Co-operative Societies is treated as one unit, and FDB is included in the wholesale analysis without the affiliated retail outlets. It will appear from the following description how the co-operation within the Co-operative Societies works. "Brugsen" occupies a predominant position within the grocery distri-bution with a market share of approx. 30 per cent.

The regular chains are characterized by the fact that the parent company owns the affililated shops. The number of shops affiliated to the regular chains is modest - a little less than 300 out of a total of nearly 10,000, but they account for an important share of total turnover, i.e. approx 20 per cent. The most important regular chains are Irma, Føtex-Bilka, and Schou/Epa, but apart from those there are two medium-sized chains and a number of small chains with 3 to 5 shops. It is evident that when each chain is one firm they are included as such in the analysis of the retail level. In these cases, figures for all relevant variables are available. The largest chains, especially Irma, exercise also wholesale functions, but these functions cannot be isolated in any reasonable way and they are included, therefore, in the retail variable values.

The voluntary chains can be divided into buying associations and wholesale-affiliated chains.

A buying association is owned by a number of independent retailers, established with the purpose of making joint purchases to obtain better terms. A buying association may act solely as a negotiating body towards suppliers, but the most important associations in the grocery trade have a special central purchasing organisation, a stock-holding wholesale department, which may be newly established or acquired through the buying of a wholesale business enterprise. The central purchasing organisation is sometimes organised as a joint-stock company. It is not the aim of the wholesale department to make a profit. Apart from transfers to reserve funds, profits, if any, are distributed to the members according to purchases made. Some of the members of the buying association may enter into a closer chain co-operation. The two largest buying associations are Oceka and Hoki, but the next two, Chr. Kjærgaard and Nordisk Handelshus, are also relatively large. Both Oceka and Hoki have a chain of supermarkets, and a chain of superettes.

The wholesale-affiliated chains consist of one or more wholesalers and a group of retailers who have entered into a close co-operation by mutual agreement. Generally, the wholesale level has been the promotor and prime mover. The wholesale enterprise remains a private enterprise, so that its profits are not distributed to the retailers, but the wholesaler is obliged to assist the retailers in certain ways, and the retailers are obliged to co-operate mutually. The details of the agreement may be extremely varied, of course. It is a common prerequisite that the affiliated retailers must concentrate their purchases as much as possible on the wholesale partner, but it seems that there is no general obligation not to buy from others. The advantages, however, in the form of participation in campaigns and discounts would disappear then. Usually, there is also an obligation to give the shop a certain front and lay-out and to keep a certain assortment of goods. Membership of a voluntary supermarket chain or superette chain is usually limited to retail outlets with a certain minimum turnover. The agreement may provide the retailer with a certain local monopoly. The three major wholesale-affiliated chains are Spar/Centra, Favør/Elite, and Vivô/Frikøb, the two names referring to the supermarket chain and the superette chain, respect--ively.

The organised co-operation of the buying associations and of the wholesale-affiliated chains has the aim of obtaining similar economies as those of the regular chains, while the individual retail outlets preserve their independence and the advantages arising out of the fact that they are run by their owners. The advantages of the close co-operation between the wholesale and retail levels may consist of economy in the wholesale functions, for instance. Orders can be made a routine, and the placing of orders and delivery of goods can be fixed in a rota system. If the assorment of the individual shops is standardised, the rate of stockturn is intensified. In addition, economies of scale in the physical distribution - trucks, organisation of haulage, storage arrangements - and in EDP-processing are obtained.

Advantages may also arise out of making the conduct of business of the affiliated retailers more efficient with respect to joint advertising, composition of assortment, the lay-out of shops, accounting, etc.

The major part of the Danish wholesale grocers have established their own buying association, DAGROFA, which buys from Danish industry, and a sister company, A/S Unil, with a subsidiary company, Caldano A/S, which imports foreign everyday commodities.

As the voluntary chains are organised in such a way that the wholesale level does not own the shops, but that a number of shops cooperate to obtain certain advantages, the chains as such cannot be included in the concentration analyses of the retail level, because each shop is an independent firm. Still, the formation of chains is to be considered a manifestation of an increasing concentration within the grocery trade. Apart from ownership, the difference between voluntary chains and regular chains is negligible - both as to the common look of the shops as well as to the management of the shops. In addition, the wholesale level aims at extending its share of the assortment, for instance with respect to coffee, deep-frozen goods, fruit and vegetables, textiles, etc., and the chains are beginning to market their own brands. Therefore, the group of wholesalers and retailers connected through the chain is beginning to appear more and more as an interlocked unit, although, formally, nothing prevents the owner of a shop from switching to another chain or from backing out of the chain co-operation altogether. Competition between the chains manifests itself, for instance in attempts to attract members from other chains. As mentioned before, this growing integration between the wholesale level and the individual shops and between the individual shops within the various chains is not included in the analysis, but it should be taken into consideration when interpreting the various index values.

The phenomenon is included in the third analysis, however, where the turnover of the chains, be they regular or voluntary is considered.

### 4.1.1. The Danish Consumers' Co-operative Societies.

The Co-operative Societies are predominant within the retail as well as the wholesale level with processed foodstuffs and everyday commodities on the whole. The food factories of the Co-operative Societies also play an important part within the Danish food industry.

### The Appearance and Development of the Co-operative Societies.

The following exposition of the development of the Co-operative Socities is based especially on the report from FDB's commission on structure and the annual reports.

The first regular co-op was founded in 1866 and already 5 years later the number had grown to 75. A co-op is owned by its members who pay in an amount and profits are distributed among the members in accordance with their purchases from the co-op. The idea behind the foundation of the co-ops was to improve the material conditions of the members by providing them with quality goods and by keeping profits arising out of sales for themselves.

Very early, the individual co-ops established joint buying associations which were merged in 1896 in a single organisation, FDB. At that time, there were about 800 co-ops in the country, of which some 300 participated from the start in the establishment of the Consumers' Co-operative Societies, but after a number of years nearly every co-op had joined FDB.

This organisation grew up to become a very large import and wholesale buying enterprise, which supplied the co-ops all over the country from its own storage departments and which founded factories in order to produce a growing proportion of the necessaries of the co-op members. In 1918, the purchasing co-operation was further extended to include joint import to all co-ops in the Scandinavian countries.

The spreading of the co-ops during the last 40 years is shown in Table 4.1. from which it appears that the number of co-operative societies and the number of shops are now falling, while turnover and the number of members have been steadily increasing.

Table 4.1. The Consumers' Co-operative Societies 1930-74.

| Year | Total number of co-ops 1) | Total number of shops | Total number of members 1000 2) | Total retail turnover million Dkr | Turnover of everyday commodities million Dkr | Profits as a percentage of total retail turnover (Independent co-ops) | Distributed as a percentage of turnover of everyday commodities 3) | Number of members as a percentage of number of hous holds The whole country |
|---|---|---|---|---|---|---|---|---|
| 1930 | 1730 | 1905 | 300 | 260 | 202 | 8.2 | 8.3 | - |
| 1935 | 1813 | 2001 | 353 | 281 | 281 | 8.7 | 8.2 | 32 |
| 1940 | 1868 | 2100 | 403 | 387 | 316 | 7.9 | 7.6 | 35 |
| 1945 | 1873 | 2118 | 426 | 398 | 338 | 4.9 | 4.2 | 34 |
| 1950 | 1901 | 2188 | 433 | 822 | 648 | 3.5 | 3.0 | 33 |
| 1955 | 1908 | 2244 | 476 | 1188 | 857 | 3.5 | 3.3 | 33 |
| 1960 | 1904 | 2324 | 526 | 1614 | 1219 | 4.1 | 3.7 | 34 |
| 1961 | 1902 | 2370 | 554 | 1771 | 1384 | 4.1 | 3.7 | 36 |
| 1962 | 1897 | 2373 | 585 | 1994 | 1575 | 4.0 | 3.7 | 38 |
| 1963 | 1895 | 2382 | 616 | 2157 | 1740 | 4.0 | 3.7 | 39 |
| 1964 | 1870 | 2361 | 659 | 2347 | 1912 | 4.3 | 3.8 | 41 |
| 1965 | 1852 | 2341 | 712 | 2583 | 2165 | 3.9 | 3.7 | 43 |
| 1966 | 1839 | 2317 | 743 | 2875 | 2471 | 3.4 | 3.0 | 45 |
| 1967 | 1815 | 2315 | 767 | 3345 | 2979 | 3.3 | 2.7 | 46 |
| 1968 | 1787 | 2269 | 805 | 3653 | 3287 | 2.4 | 2,5 | 48 |
| 1969 | 1742 | 2217 | 839 | 4032 | 3662 | 2.4 | 2.2 | 49 |
| 1970 | 1664 | 2094 | 863 | 4478 | 4084 | 2.1 | 2.0 | 49 |
| 1971 | 1620 | 2036 | 882 | 4977 | 4561 | 1.8 | 1.9 | 50 |
| 1972 | 1597 | 1958 | 888 | 5503 | 5100 | 2.3 | 1.7 | 50 |
| 1973 | 1563 | 1896 | 917 | 6280 | 5773 | 2.3 | 1.6 | 50 |
| 1974 | 1528 | 1877 | 940 | 7300 | 6656 | 2.1 | 1.4 | 50 |

1) including non-reported societies

2) excluding members not receiving dividends

3) dividends - transfers to co-operative societies and dividends account + redistribution from dividends account

Source: FDB/Brugsen, 1974

Thus, the co-ops were originally a number of independent units co-operating through FDB in making purchases. This co-operation, however, has progressed by leaps and bounds making the Co-operative Socities look more like a regular chain or a strongly integrated voluntary chain.

In 1928 a journal for the members of the co-ops was founded, in 1929 FDB's central laboratory and office of architecture were established, and in 1932 "Andelsskolen", (the School of the Danish Co-operative Movement), which aims at educating young employees of the co-ops, was opened. The educational work and the advisory and auditing assistance to the co-ops were expanded substantially through the 1930's, and they and the other organisations of assistance, including the advertising department founded in 1938, have strongly developed ever since. Thus, the educational work has progressed through the founding of FDB's training department, and all central departments of FDB include central accounts departments which keep the accounts of the co-ops. Finally, FDB renders technical and financial assistance to the extension and modernisation of the shop network of the Co-operative Societies. In the beginning of the 1950's a strengthening of the voluntary chain was initiated resulting in a tightening of the commercial co-operation. The co-ops have conformed to intensively systematic procedures with respect to placing of orders and delivery of goods to derive the full advantages of the seven new central departments that replaced 15 smaller wholesale departments as centres of the wholesale distribution in the middle of the 1950's. At the same time co-operation on the fixing and national advertising of recommended retail prices and on the implementation of a joint marketing policy, followed by advertising and other sales-promoting measures, was established.

In 1964 the voluntary contractual chain was founded despite some resistance against the fact that the voluntariness and independence were further limited. According to the agreement participating co-ops were obliged to comply with FDB's instructions with respect to assortment of goods, common lay-out of the shops, window and shop displays, and bargains campaigns. With certain exceptions, the goods must be bought from FDB. The co-ops must consult FDB with respect to changing store managers and to the lay-out of the shops. Investments in new shops are not allowed without agreement with FDB. In return for these obligations, FDB grants a ½ per cent annual bonus on the stock purchases of the chain members and is obliged to assist at shop investments, for instance, with respect to planning, layout, and financing, and possibly by participating in investment and operational risks. In 1970 87 per cent of the co-ops had joined the voluntary chain, and as a large number of co-ops of the major provincial towns had been united with HB - the Co-operative Societies of Copenhagen - the beginning of the 1970's saw a certain bipartition of the co-operative movement.

In 1972 the movement went a step further in its integration efforts, when FDB and HB were merged on 1st January 1973. HB was the only co-operative society with many shops. It was founded in 1916 by a merger of 16 Copenhagen societies. It later expanded vigorously and spread throughout the country, for instance by mergers with more than 30 other co-ops. At the merger, FDB took over about 290 shops, of which about 145 were supermarkets and about 45 were department stores. In addition, there were one variety store, furniture stores, and various production enterprises - food factories and bakeries. Since then an additional number of co-ops have joined FDB. The merger had the result that all of the about 1900 shops got uniform names as an indication of the wish to demonstrate a uniform profile for all of them, whether they are run by FDB or by one of the independent societies of the country.

## The Present Structure of the Consumers' Co-operative Societies.

The structure today of the Co-operative Socities is characterised by the fact that there exist a large number of independent co-ops - some 1500 - co-operating through FDB, (93 per cent of all co-ops are parties to the chain agreement, 96 per cent have joined the central accounts departments, and 67 per cent the auditing service as per 1st January 1975). FDB, the Consumers' Co-operative Societies of which the co-ops are members, takes care of the wholesale functions for these co-ops and for the shops which the Co-operative Societies own. Apart from that, FDB owns a number of production enterprises and has interests in others. Table 4.2. which shows the number of employees of FDB and its subsidiary companies and of the Co-operative Societies as a whole for the years 1973 and 74 illustrates the importance of the Co-operative Socities for the Danish everyday commodities sector.

**Table** 4.2. Number of Employees In FDB, Subsidiary Companies, and the Co-operative Movement.

| | Number of persons on all-year basis | |
|---|---|---|
| | 1974 | 1973 |
| DB shops | 3691 | 3619 |
| Central departments | 1517 | 1525 |
| National warehouses | 188 | 194 |
| Principal office, Albertslund | 1013 | 1059 |
| Factories: | | |
| Albertslund | 74 | 79 |
| The Viby factories | 515 | 508 |
| The meat and delicatessen factory, Viby | 200 | 167 |
| The meat and delicatessen factory, Copenhagen | 54 | 191 |
| The tobacco factory, Esbjerg | 105 | 124 |
| The furniture factory, Tarm | 72 | 75 |
| The clothing factory, Copenhagen | 133 | 123 |
| The seeds department | 93 | 96 |
| Factories - total | 1246 | 1363 |
| FDB - total | 7655 | 7760 |
| Subsidiary companies: | | |
| Svendborg Wine Company | 354 | 349 |
| Vejle Steam Mill | 90 | 88 |
| English-Danish Biscuits Factory | 248 | 324 |
| The Danish Publishing House | 3 | 3 |
| The auditing service | 80 | 72 |
| The advertising service | 115 | 122 |
| ANVA, CM | 709 | 731 |
| Subsidiary companies - total | 1599 | 1689 |
| FDB and subsidiary companies - total | 9254 | 9449 |
| The Co-operative Movement: | | |
| FDB and subsidiary companies | 9254 | 9449 |
| Co-ops (independent) | 7311 | 7345 |
| Total | 16565 | 16794 |

## a. Shop Structure.

Table 4.3. shows the number of shops of the Co-operative Societies at the end of 1974 and 1968. It appears that the number of department stores and supermarkets has grown considerably. The number of self-service stores has fallen slightly, while the number of shops with counters has fallen drastically. The low-price department store Obs! which opened in 1974 and the variety chain stores Anva (5 stores) are included in the group of department stores.

During the period, where the number of shops has fallen by about 400, the sales area has increased from about 325,000 $m^2$ to some 480,000 $m^2$. Tables 4.4. and 4.5. show the sales area of all shops at the end of 1974 and the average sales area per shop. Thus, the number of shops has fallen, while the sales area has increased. This is of course due to the fact that rebuilding, extension and modernisation have occurred, while the newly established shops are larger than those closed down. The low-price department store Obs!, for instance, has a total sales area of 21,000 $m^2$. Table 4.5. shows investments by the Co-operative Societies in the shop network for 1974 and 1975.

In Table 4.7. the turnover of everyday commodities has been distributed on types of shops and groups of articles. It appears from this table that department stores and supermarkets account for more than half of the turnover, while the major part of the shops has a relatively modest turnover of between 1 and 3 million Dkr. It also appears from the table that the group of articles groceries and household aplliances is by far the most important.

Table 4.3. The Number of Shops At the End of 1968 and 1974.

| | 1968 | 1974 |
|---|---|---|
| Shops with counters | 463 | 92 |
| Self-service stores | 1339 | 1304 |
| Supermarkets | 297 | 397 |
| Department stores | 35 | 61 |
| Other shops | 132 | 23 |
| Total | 2266 | 1877 |

Table 4.4. Sales Area For All Shops At the End of 1974.

| | $m^2$ | Increase in $m^2$ |
|---|---|---|
| Total | 481461 | 41624 |
| Of this: FDB | 136155 | 32060 |
| ANVA, CM | 24392 | - |
| Co-ops | 320914 | 9564 |

Table 4.5. Average Sales Area Per Shop, 1974.

| | FDB | Co-ops |
|---|---|---|
| | $m^2$ | |
| Department Stores (Kvickly) | 1546 | 1645 |
| Supermarkets | 319 | 471 |
| Self-service stores | 111 | 137 |
| Shops with counters and other shops | 80 | 78 |
| Total | 441 | 201 |

**Table** 4.6. Shop Investments 1974 and 1975 (million Dkr).

| | 1974 | (Planned)<br>1975 |
|---|---|---|
| Total shop investments | 147 | 158 |
| Of this financed by FDB | 64 | 78 |
| Granted by Brugsforeningernes Garanti og Lånefond (The Guarantee and Loans Fund of the Co-operative Societies) | 83 | 80 |

### Table 4.7. Turnover of Everyday Commodities Distributed On Types of Shops and Groups of Articles, 1974.

| Type and size of shop according to annual turnover of everyday commodities (1000 Dkr) | Number of shops | Everyday commodities total 1000 Dkr | Groups of articles | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Groceries and household appliances | | Fresh fruit and vegetables | | Meat and delicatessen | | Hardware and textiles | |
| | | | 1000 Dkr | per cent | 1000 Dkr | per cent | 1000 Dkr | per cent | 1000 Dkr | per cent |
| Shops with counters: | | | | | | | | | | |
| - 699 | 44 | 24106 | 19679 | 81 | 843 | 4 | 842 | 4 | 2742 | 11 |
| 700 - | 48 | 53673 | 43314 | 81 | 2346 | 4 | 2082 | 4 | 5931 | 11 |
| Total | 92 | 77779 | 62993 | 81 | 3189 | 4 | 2924 | 4 | 8673 | 11 |
| Self-service stores: | | | | | | | | | | |
| - 699 | 93 | 54395 | 43891 | 81 | 2033 | 4 | 2094 | 4 | 6377 | 11 |
| 700 - 999 | 254 | 220312 | 174158 | 79 | 8592 | 4 | 9032 | 4 | 28530 | 13 |
| 1000 - 1499 | 393 | 486236 | 384320 | 79 | 19985 | 4 | 20471 | 4 | 61460 | 13 |
| 1500 - 1999 | 210 | 359397 | 285973 | 80 | 16281 | 5 | 15562 | 4 | 41581 | 11 |
| 2000 - 3000 | 236 | 572470 | 451487 | 79 | 28297 | 5 | 26232 | 4 | 66454 | 12 |
| 3000 - | 118 | 448878 | 354657 | 79 | 24195 | 5 | 22938 | 5 | 47088 | 11 |
| Total | 1304 | 2141688 | 1694486 | 79 | 99383 | 5 | 96329 | 4 | 251490 | 12 |
| Supermarkets: | | | | | | | | | | |
| - 3999 | 54 | 168509 | 120754 | 72 | 9891 | 6 | 23237 | 14 | 14627 | 8 |
| 4000 - 5999 | 122 | 604652 | 429859 | 71 | 38225 | 6 | 94031 | 16 | 42537 | 7 |
| 6000 - 7999 | 110 | 767348 | 536631 | 70 | 50046 | 7 | 124849 | 16 | 55822 | 7 |
| 8000 - 9999 | 50 | 441931 | 307856 | 70 | 28814 | 6 | 75958 | 17 | 29303 | 7 |
| 10000 - | 61 | 750134 | 513912 | 69 | 50559 | 7 | 123650 | 16 | 62013 | 8 |
| Total | 397 | 2732574 | 1909012 | 70 | 177535 | 6 | 441725 | 16 | 204302 | 8 |
| Kvickly: | | | | | | | | | | |
| - 14999 | 5 | 69421 | 42930 | 62 | 3886 | 6 | 10476 | 15 | 12129 | 17 |
| 15000 - 19999 | 16 | 285164 | 175035 | 61 | 18735 | 7 | 46824 | 16 | 44570 | 16 |
| 20000 - 24999 | 21 | 461242 | 279974 | 61 | 31272 | 7 | 71908 | 15 | 78088 | 17 |
| 25000 - | 13 | 451003 | 272005 | 60 | 27962 | 6 | 71709 | 16 | 79326 | 18 |
| Total | 55 | 1266830 | 769945 | 61 | 81855 | 6 | 200917 | 16 | 214113 | 17 |
| Other shops, etc.1) | 23 | 109026 | 63615 | 58 | - | - | - | - | 45411 | 42 |
| ANVA, CM, Obs! | 6 | 328210 | 95436 | 29 | 3326 | 1 | 7483 | 2 | 221965 | 68 |
| Total | 1877 | 6656107 | 4595487 | 69 | 365288 | 6 | 749378 | 11 | 945954 | 14 |

1) Including turnover in closed down shops.

Source: FDB/Brugsen, 1974

### b. The Wholesale Level.

In 1974 FDB's total wholesale turnover amounted to a total of 5,073.2 million Dkr or 19 per cent more than in 1973. In 1968 the turnover amounted to some 2,000 million Dkr. Table 4.8. shows the turnover in 1974 distributed on forms of supply and departments. The 7 centraldepartments and the Rønne department (Bornholm) keep in stock approx. 3000 quickly marketable products. The national warehouses, (Speciallageret and Naverlandslageret), keep in stock about 17000 slowly marketable products. Bulk supplies come from suppliers who daily supply the central departments with the quantity of goods ordered by the shops. Direct supplies are goods which FDB's wholesale departments do not keep in stock, but which are delivered directly from its own factories and subsidiary companies and from extraneous suppliers to the shops. It should be mentioned that the shops place more than 2/3 of their orders with FDB. Table 4.9. shows FDB's wholesale turnover distributed on groups of articles. It appears that the group stimulants, i.e. tobacco, wine and spirits, for instance, is by far the most important with respect to turnover.

Table 4.8. FDB's Wholesale Turnover Distributed On Forms of Supply and Departments, (1000 Dkr).

| | 1974 | | As a percentage of 1973 |
|---|---|---|---|
| Central departments - total | | 2313290 | 99 |
| Albertslund | 583780 | | 97 |
| Viby | 347890 | | 99 |
| Vejen | 305654 | | 100 |
| Vordingborg | 335657 | | 97 |
| Holstebro | 197355 | | 100 |
| Odense | 236503 | | 100 |
| Skalborg | 253933 | | 100 |
| Rønne | 52518 | | 115 |
| National warehouses - total | | 489920 | 117 |
| Speciallager | 329802 | | 113 |
| Naverlandslager | 160118 | | 127 |
| Bulk supplies | | 357275 | 487 |
| Direct supplies from own factories/subsidiaries | | 435957 | 142 |
| Direct supplies from extraneous suppliers | | 615833 | 116 |
| Invoiced payments | | 862921 | 146 |
| Total wholesale turnover | | 5075196 | 119 |

Table 4.9. FDB's Wholesale Turnover Distributed On Groups of Articles, (1000 Dkr).

| | 1974 | As a percentage of 1973 |
|---|---|---|
| Stimulants | 1425007 | 128 |
| Tinned food, sugar, meal and groats | 500871 | 115 |
| Pastry, coffee, and tea | 331738 | 106 |
| Dairy products and deep-frozen products | 554189 | 119 |
| Meat and delicatessen | 544478 | 117 |
| Fruit and vegetables | 226893 | 115 |
| Petroleum products | 308476 | 151 |
| Household appliances | 476449 | 112 |
| Hardware | 327823 | 111 |
| Kitchen utensils and gift articles | 72855 | 111 |
| Textiles | 97659 | 119 |
| Furniture | 49825 | 121 |
| Heavy goods | 126865 | 130 |
| Articles for consumption by the co-ops | 32248 | 115 |
| Total wholesale turnover | 5075196 | 119 |

## c. Production.

As mentioned previously, FDB is heavily involved in the production of food, etc. Table 4.1o. illustrates these production activities. The number of employees appears from Table 4.11 . In 1974 the total production of FDB and subsidiaries was 1,0006.7 million Dkr or 18 per cent more than in 1973. To get a complete picture of FDB's own production, part of the production of FDB-affiliated companies and jointly owned Scandinavian companies must be included.

The brands of the coffee-roasting factory provided the Co-operative Societies with the largest market share of the Danish market, viz. 18 per cent, and FDB's market share for table margarine was approx. 27 per cent in 1974.

Svendborg Vinkompagni og Konservesfabrik, A.m.b.a., (the Svendborg Wine Company and Tinned Food Factory, Ltd.), produces for instance the deep-frozen articles of the Co-operative Societies besides regular tinned food.

In 1974 the chocolate factories employeed 313 persons in Kolding and its sales in Denmark amounted to 54 million Dkr.

Table 4.1o.

| | 1974 | As a percentage of 1973 |
|---|---|---|
| FDB and Subsidiaries: (1000 Dkr) | | |
| The Albertslund factories | 140579 | 103 |
| The coffee-roasting factory | 119588 | 101 |
| The grocery packing department | 20991 | 120 |
| The Viby factories | 253000 | 154 |
| Rope and twine | 46674 | 247 |
| Chemico-technical | 47738 | 123 |
| The spice mill | 20145 | 113 |
| Margarine | 138443 | 156 |
| Meat and delicatessen, Viby | 142437 | 138 |
| Meat and delicatessen, Copenhagen | 56888 | 59 |
| The cigar factory, Esbjerg | 13473 | 87 |
| The furniture factory, Tarm | 11488 | 99 |
| The clothing factory, Copenhagen | 17452 | 124 |
| The seeds department, Glostrup | 54359 | 137 |
| The Svendborg Wine Company and Tinned-food Factory, A.m.b.a. | 185114 | 117 |
| The Vejle Steam Mill, A.m.b.a. | 73858 | 125 |
| A/S The English-Danish Biscuits Factory, Skovlunde | 56712 | 102 |
| The Danish Publishing House, Albertslund | 1162 | 119 |
| Total | 1006522 | 118 |
| FDB-affiliated Companies: (1000 Dkr) | | |
| The Grindsted Potato Centre, A.m.b.a. | 12245 | 126 |
| The Esbjerg Chemicals Factory, A.m.b.a. | 17600 | 109 |
| OK Oil A/S, Copenhagen | 332000 | 157 |
| Total | 361845 | - |
| Jointly Owned Scandinavian Companies: (1000 Dkr) | | |
| A/S Nordchokolad, Kalmar/Kolding | 291000 | 128 |
| Oy Nordspray, Dickursby | 12700 | 122 |
| The Nordkronen Chemico-tecnical Factory A/S, Stavanger | 15000 | 143 |
| Total | 318700 | - |

Table 4.11

NUMBER OF EMPLOYEES IN
FDB AND SUBSIDIARIES

| Employees on whole-year-basis | 1974 | 1973 |
|---|---|---|
| DB shops*) | 3.691 | 3.619 |
| Central departments**) | 1.517 | 1.525 |
| National warehouses | 188 | 194 |
| Main office, Albertslund | 1.013 | 1.059 |
| Factories: | | |
| Albertslund | 74 | 79 |
| Viby Factories | 515 | 508 |
| Meat and delicatessen, Viby | 200 | 167 |
| Meat and delicatessen, Copenhagen | 54 | 191 |
| The cigar factory, Esbjerg | 105 | 124 |
| The furniture factory, Tarm | 72 | 75 |
| The clothing factory, Copenhagen | 133 | 123 |
| The seeds department | 93 | 96 |
| Factories total | 1.246 | 1.363 |
| FDB total | 7.655 | 7.760 |
| Subsidiaries: | | |
| The Svendborg Wine Company | 354 | 349 |
| The Vejle Steam Mill, A.m.b.a. | 90 | 88 |
| A/S The English-Danish Biscuits Factory | 248 | 324 |
| The Danish Publishing House | 3 | 3 |
| The Audit department | 80 | 72 |
| The Advertising department | 115 | 122 |
| ANVA, CM | 709 | 731 |
| Subsidiaries, total | 1.599 | 1.689 |
| FDB and subsidiaries total | 9.254 | 9.449 |

*) Incl. Kvickly Aalborg, Obs! etc.

**) Incl. Rønne Department

Source: FDB/Brugsen, 1974.

## 4.1.2. The Regular Chains.

### a. Irma

Irma is the largest private-owned chain in the food trade. It was founded in 1895 by Carl Schepler and in 1942 the firm, then comprising approx. 100 shops, was transformed into a joint-stock company. Since then the number of shops has grown substantially, and today Irma has more than 175 shops. During recent years the number of shops has been fairly constant, because efforts have been concentrated on creating large shops. All shops are situated east of the Great Belt.

Irma's policy distinguishes itself from that of other chain stores by attaching great importance to a heavy centralisation of the distribution. All production and processing of goods is centralised which ensures a uniform quality. Such a centralisation requires a tight network of shops and a relatively large market share. This is one of the reasons why Irma has liquidated its shops in North Schleswig.

From 1968 to 1975 the retail turnover has increased from 555 million Dkr to approx. 1500 million Dkr. This gives Irma a market share east of the Great Belt of a little less than 14 per cent and a market share of the whole country of approx. 6 per cent calculated on the basis of Irma's assortment of goods. For 1976/77 the chain expects a turnover of some 2000 million Dkr.

Approx. 60 per cent of the goods sold by Irma (measured by turnover) are bought from extraneous suppliers, while 40 per cent are produced by Irma's own factories. Practically all goods, however, are sold under Irma's own brands.

The Irma group consits of four joint-stock companies, the largest being Irma Fabrikkerne A/S. Irma Fabrikkerne has a sister company, Irma Cafeteria A/S, owned by the same shareholders, and ten subsidiary companies. The other two companies of the chain are A/S France, selling to canteens, etc., and Irma Vin A/S taking care of purchases and bottling of wine.

Irma's production enterprises employ approx. 850 persons. The group has its own meat and delicatessen factories, salad factory, marmelade factory, potato packing department, mineral water factory, dairy, margarine factory, spice packing department, cheese packing department, bakery, coffee-roasting factory, and fruit packing department. The whole group employs approx. 4800 persons.

Until July 1976 the group was owned by four shareholders, each possessing approx. 25 per cent of the share capital totalling 40 million Dkr. The four shareholders were Odense Ægforretning A/S, (a family company), the descendants of Chr. Holm (merchant), Privatbanken, (Denmark's third largest bank), through the holding company Robinson Andersen og Co., and the British food combine Cavenham Ltd. through the holding company Poul Rützou og Co. In July 1976, however, Cavenham sold its shares in Poul Rützou og Co. to Privatbanken and the Gutenberghus group - Denmark's largest graphic company - for 25 million Dkr. Privatbanken and the Gutenberghus group has divided the shares between them in the proportion 40 - 60. Thus, Privatbanken is today the largest shareholder in Irma with a total holding of 35 per cent. The share capital of 40 million Dkr is being increased to 60 million Dkr by a transfer of 20 million Dkr from the reserve funds.

## b. Dansk Supermarked A/S

Dansk Supermarked A/S runs the two regular chains Føtex and Bilka.

The first Føtex store was opened in Århus in 1960, and by 1970 the chain was more or less complete with 19 shops - primarily department stores - all situated west of the Great Belt. In 1975 the chain consisted of 17 department stores with a turnover of 650 million Dkr, the stores thus being relatively large. The turnover is distributed on food products with approx. 60 per cent and non-food products with approx. 40 per cent.

The Bilka chain may be considered an innovation within Danish retailing during recent years. In 1976 it consists of 4 very large low-price department stores, large as to turnover as well as to area. Ecah department store covers more than 10,000 $m^2$, and the annual turnover of each store now totals 200 to 300 million Dkr.

The first low-price department store opened in Århus in 1970. Since then one has been opened in Ålborg in 1972, one in the Copenhagen area in 1973, and one in April 1976 in Odense. The chain has planned to build one more low-price department in the Copenhagen area.

Dansk Supermarked A/S is jointly owned by the department store chain F. Salling A/S, Århus, and the A.P. Møller group each posessing approx. one half of the share capital. The share capital which has been increased several times amounts to some 60 million Dkr.

According to the latest published accounts for 1974/75, the firm had a turnover of 1,119 million Dkr and employed approx. 2000 persons.

### c. Schou-Epa A/S

Schou-Epa A/S was founded in 1967 with the purpose of running department stores throughout the country. The company was formed by a co-operation between C. Schous Fabrikker - a large Danish family company - and the Swedish department store chain N.K. Turitz AB.

The company opened its first department store in the autumn of 1968 and in 1971 it had 5. In 1972 Schou-Epa bought the department store chain Dana-Tempo, which had 8 department stores in Copenhagen and major provincial towns at that moment. Dana-Tempo was a subsidiary company of the Swedish department store chain Tempo owned by Åhlen og Holm. This company opened it s first department store in 1964 and had 5 in 1968.

In the autumn of 1974 the Danish parent company C. Schous Fabrikker A/S entered into liquidation, but N.K. Turitz AB had become the actual sole owner one month earlier by investing 20 million Dkr in the chain. One year later, in September 1975, the Swedish company sold the department store chain Schou-Epa to the Danish company A/S Th. Wessel og Wett for approx. 25 million Dkr. This company, whose shares have been quoted on the Copenhagen stock exchange for many years, also runs Denmark's oldest and largest chain of variety stores, Magasin du Nord.

The reason for Schou-Epa's chequered career is substantial losses during recent years. Thus, in 1974 deficits totalled 18 million Dkr. The two department stores having the largest deficits have been closed, however, so that the chain now consists of 16 department stores with a turnover of approx. 600 million Dkr and with approx. 1600 employees.

## 4.1.3. The Voluntary Chains.

### 4.1.3.1. The Buying Associations

#### a. A/S Oceka

Oceka is a retail-owned buying association which was founded in 1901. The number of shops affiliated is some 600 spread all over the country. During recent years the number of members has been relatively constant. In 1970 the chain grew by 90 shops, when it was merged with the firm T.C. Oehlenschläger, Grindsted. Part of Oceka's contracting parties operates under the name of Dako.

Oceka operates with three types of shops:

1) Oceka grocers
2) Oceka markets
3) Superland

The supermarket chain Superland was started in 1969 with 8 supermarkets. By 1975 the number had grown to 62.

The Oceka markets are a superette chain established in 1973 by a group of large groceries. At the time there are approx. 200 Oceka markets.

The Oceka grocers are the remaining group of contracting parties who do not take part in any enlarged co-operation.

In 1974 Oceka's retail turnover totalled approx. 1400 million Dkr, while the wholesale turnover amounted to 429 million Dkr.

Besides the wholesale functions - buying and distribution - the association conducts sales-promoting campaigns and runs an advertising and advisory service. Oceka has its own packing department and its own financing company - Ocekainvest. Det franske Vinlager is a subsidiary of Oceka. The chain co-operates with A/S Hoki and A/S Chr. Kjærgård on the marketing of a joint brand of coffee under the name Columbus. For some years Oceka has been shareholder in EUCO which represents a number of European central purchasing organisations.

### b. A/S Hoki

Hoki is a nationwide retail-owned central buying organisation founded in 1933 with 20 grocers.

The number of members which has grown substantially since then, has not changed very much during recent years, and today approx. 670 grocers are affiliated with the organisation.

The Hoki grocers may be divided into three groups:

1) Hoki grocers
2) Hoki superettes
3) Trica supermarkets

The Trica supermarket chain was established in June 1970 and consists today of 25 supermarkets.

The superette chain was not started until the autumn of 1974. The number of members is still relatively low.

A/S Hoki is a wholesale organisation. It makes large purchases and distributes the goods from 4 central warehouses. Besides, there are also various production departments: A coffee-roasting and -packing factory, a cheese packing department and cold store, wine bottling, a limonade bottling department, a spice mill, and a mustard factory.

The grocers are assisted in their sales-promoting activities, e.g. through various forms of joint advertising, and advisory and decoration service.

In 1974 Hoki's wholesale turnover was approx. 350 million Dkr, while the retail turnover of the affiliated shops totalled approx. 1100 million Dkr. Hoki is a member and joint owner of the retail-owned central buing organisation EUROGROUP.

### 4.1.3.2. The Wholesale-affiliated Chains.

#### a. Vivo and Frikøb (the Brdr. Justesen group)

The supermarket chain Vivo and the superette chain Frikøb were established on the initaitive of the sholesale firm Brdr. Justesen, which is the only participating wholesale enterprise.

Brdr. Justesen is one of Denmark's largest wholesalers dealing in everyday commodities. The firm was founded in Randers in 1881, but already in the beginning of this century the firm had become a nationwide combine. Besides 12 traditionally run wholesale grocery enterprises, including Brødrene Pedersen A/S, Vejle, and Frihavnens Kaffekompagni A/S, Brdr. Justesen owns 14 cash-and-carry wholesale stores. The firm co-operates with approx. 2000 retail grocers and more than 1000 bakers. The firm employs a little less than 400 persons, and its turnover in 1974/75 was 584 million Dkr.

During recent years Brdr. Justesen has made an attempt to broaden the assortment of the shops, e.g. with deep-frozen products, wine/spirits, textiles, and hardware. In this connection the firm acquired Vinimporten af 1963 A/S in July 1975.

The Brdr. Justesen group which has enjoyed relatively large profits recently, was owned by the family Justesen until July 1976. At that time, however, the share majority in the firm was bought by A/S Skandinavisk Tobakskompagni which is Denmark's largest tobacco factory. 60 per cent of the share capital of 14 million Dkr was acquired. The pruchasing price is estimated at approx. 50 million Dkr.

In 1970 the firm founded a grocery chain under the name of Frikøb. From the existing clientele, a number of appropriate shops was selected, which were offered membership of the chain. At the start in 1970 the chain thus consisted of approx. 300 shops. Since then, the number has grown to approx. 480 shops with a total turnover of approx. 750 million Dkr. The average sales area is approx. 80 $m^2$. At the starting of the chain the Frikøb shops were required to have a sales area of at least 50 to 60 $m^2$ and a minimum turnover of 600,000 Dkr. The members pay a small annual subscription, and the firm arranges their bargains and advertising campaigns.

Brdr. Justesen founded the supermarket chain Vivo simultaneously with the grocers' chain, Frikøb. At the start there were 6 supermarkets, a number which has grown to some 40 in 1975. The requirements to a Vivo supermarket were a sales area of at least 250 $m^2$ and a total annual turnover of at least 4 million Dkr, besides a full assortment of food products, of course. The shops are independent, but have a special front. Apart from that the individual shops are provided with various advisory services, and they can participate in weekly campaigns.

**b. Favør and Elite** (The Lund og Rasmussen group and others)

Favør is a supermarket chain started in 1965 in co-operation with the wholesale grocery firm Lund og Rasmussen A/S, Helsinore. In 1967 it consisted of 34 large shops, including 22 supermarkets with a turnover of approx. 150 million Dkr. At the beginning of 1975 Favør had grown to 75 supermarkets with a turnover of approx. 865 million Dkr. To become a member of Favør the shops must have a full assortment of food products, a sales area of at least 300 $m^2$, and a minimum turnover of 4 million Dkr. The individual grocers are offered sales-promoting campaigns and assistance with current sales activities, advisory assistance, EDP-service, decoration and public relation assistance, and training and study tours. The Favør chain is supplied from the wholesale firm Chr. Hansen A/S, Hobro, which was affiliated with the chain in 1970, besides the firm Lund og Rasmussen, Helsinore, with its subsidiary Nørregård og Clausen A/S, Herning, (acquired in 1973). Formerly the shops had been confined to Sealand, but now the chain became nationwide.

Elite was started in 1955 in co-operation with the wholesale firms Lund og Rasmussen A/S, Helsinore, and Svend G. Pedersen, Køge. In 1967 the chain consisted of 150 grocery stores with a turnover of approx. 120 million Dkr. At the beginning of 1975 the chain had grown to some 300 grocery stores with a total turnover of approx. 700 million Dkr. At the same time it has developed into a regular superette shain. To become a member of the Elite chain, the shops are required to have a sales area of at least 100 $m^2$ and/or a minimum turnover of 1.5 million Dkr. Apart from that the shops must have a full superette assortment, i.e. deep-frozen meat and vegetables, and a line of fresh products with sliced meat, etc., cheese, and milk. The members are offered advertising campaigns, advertisements, advisory assistance, and assistance with lay-out and training.

The predominant wholesaler within both chains is the Lund og Rasmussen group, Helsinore. A/S Lund og Rasmussen was founded in 1931 in continuation of a wholesale grocery firm in Helsinore. In 1968 the group had a turnover of 85 million Dkr, which had grown to 511 million Dkr in 1975. The company and its subsidiaries employ approx. 250 persons. In 1965 Lund og Rasmussen acquired Carl Drøhses Vinimport and transformed it immediately into a joint-stock company. In February 1973 it acquired the whole share capital of 750,000 Dkr in the wholesale grocery firm Nørregård og Clausen A/S, Herning, at a price of approx. 500. In 1974 Lund og Rasmussen took over the whole share capital of 3 million Dkr in the wine company I.C. Theilman & Co.'s Eftf. A/S and the whole share capital in Louis Wolf A/S, whose line of business is wine agencies for reputable wine and spirits firms.

In 1968 the share capital of the firm amounted to 2 million Dkr, and in 1971 it was increased to 3 million Dkr by the issue of bonus shares. In 1973 Lund og Rasmussen was quoted on the stock exchange in connection with an increase of the share capital to 5.5 million Dkr. Accordint to the company no single person posesses a majority of shares, but it must be assumed that the family Lund posesses a large proportion of the shares.

c. Spar Super and Centra (the Styhr of Kjær group and I/S Kolgros)

The concentration of the two above chains gathered momentum in the beginning of 1968 and the starting point was the three voluntary chains: Spar, Centra, and Lefa with their wholesalers plus the wholesale firm Styhr og Kjær with two established voluntary chains, SK grocers and Metro.

The Spar chain was a voluntary chain founded in 1954. In 1967 it included a co-operation between 925 grocery stores and 9 wholesale firms distributed all over the country. In 1967 Spar's total wholesale turnover amounted to approx. 220 million Dkr. In the same year the total retail turnover of the affiliated grocery stores totalled approx. 600 million Dkr. The coordination of the wholesale and retail stages was taken care of by Sparcentralen in Århus. The chain had an advisory and decoration service and a fruit and vegetables packing department.

The nine wholesale grocery firms were:

Hans Jensen A/S, Ålborg
Julius Kysters Eftf. A/S, Århus
Nørregård og Clausen A/S, Århus
Jørgen Colding, Esbjerg
Nørregård og Clausen A/S, Herning
Jørgen Storm, Hjørring
Jul. Mortensen og Co. A/S, Holbæk
Jensen og Julsen A/S, Horsens
Chr. Hennings og Co., Odense.

The Centra chain was started in 1953 by grocers, and in 1967 it cooperated with 5 wholesalers, distributed all over the country. At that time, it consisted of approx. 800 grocers with a retail turnover of approx. 600 million Dkr. Centra had also its own decoration and advisory service. Through Centra the affiliated shops were assisted in various ways in their sales promotion, e.g. in the form of arrangement of and support for sales-promoting campaigns.

The five wholesale grocery firms were:

J.P. Jensen og Co. A/S, Ålborg
Chr. Hansen A/S, Hobro
Carl Christensen, Silkeborg

Paul Wilhjelm A/S, Odense
Centra Sjælland A/S, Herlev.

The Lefa chain which started in 1968 then consisted of 11 supermarkets co-operating with the wholesale firm J.P. Jensen og Co. A/S, Ålborg.

In 1968 the wholesale firm Styhr og Kjær A/S co-operated with approx. 1500 grocers, and in that year it established the two voluntary chains SK grocers and the supermarket chain Metro.

Since 1967 the number of wholesale firms has been reduced to two: Styhr og Kjær A/S and Kolgros I/S, and the chain co-operation consists of supermarket chain Spar Super with a participation of approx. 85 supermarkets in 1974, and the superette chain Centra, which had approx. 580 participants in 1974. This process of concentration has occurred in the following way:

On 1st January 1968 the wholesale firms Chr. Hennings og Co. (Spar) and A/S Paul Wilhjelm (Centra) were merged under the name of I/S Frigros, in which the two original firms were partners. In 1971 Styhr og Kjær A/S was admitted as a partner through the amalgamation with one of the branches of this firm and, also in 1971, L.P. Baagø, Svendborg, was acquired. On 1st January 1971 I/S Frigros changed its name to I/S Kolgros, Odense. At the end of 1971 Kolgros, Odense bought the shares in Jørgen Colding A/S, Esbjerg.

In 1970 the three wholesale firms J.P. Jensen, Ålborg, Jørgen Storm, Hjørring, and Hans Jensen, Ålborg, were merged into A/S Nordjyllands Kolonialkompagni.

Styhr og Kjær A/S acquired the following wholesalers during the period:

On 1st March it acquired August Adolfsens Eftf., Sønderborg.
On 1st January 1970 it acquired Centra Sjælland.
On 1st April 1970 it acquired Nørregård og Clausen in Århus.

With these last two acqisitions the firm became supplier of both Spar and Centra.

On 1st June 1970 it acquired Carl Christensen, Silkeborg.
On 1st April 1971 it acquired the grocery section of Julius Kysters Eftf., Århus.

On 1st January 1971 it became a partner in I/S Kolgros, Odense through the amalgamation with the branch of the firm in Odense.
In December 1971 it acquired A/S Nordjyllands Kolonialkompagni, thus becoming supplier of the supermarket chain Lefa.
On 1st July 1972 it acquired Jul. Mortensen og Co., Holbæk, and with that also Holbæk Vinkompagni.

In 1976 Styhr og Kjær has sold its interests in I/S Kolgros, Odense, to the two original partners. These interests totalled 30 per cent of the partnership capital.

As far as the chain co-operation is concerned, a number of the grocery firms formed the Kolgros group in 1971. The group consisted of:

A/S Nordjyllands Kolonialkompagni, Ålborg
Nørregård og Clausen A/S, Herning
A/S Styhr og Kjær, Århus and Glostrup
Jørgen Colding A/S, Esbjerg
I/S Kolgros, Odense, and
Jul. Mortensen og Co. A/S, Holbæk.

With the exception of Nørregård og Clausen A/S, Herning, which was bought by Lund og Rasmussen A/S, Helsinore, as previously mentioned, the companies have, as described above, been reduced to the two companies A/S Styhr og Kjær and I/S Kolgros. But in 1971 the original group formed Kolgroscentralen - the previous Sparcentral - as a co-operation between the voluntary chains Spar, Spar Super, Centra, Metro, and Lefa. Kolgroscentral was to make marketing programmes for the individual chains and perform a number of service functions like, for instance, advisory and decoration services, education and training programmes, and much more. On 1st January 1975 Kolgroscentralen changed its name to Kædecentralen, but with the same tasks. It serves only two chains now, however:

a. The supermarket chain Spar Super and
b. The superette chain Centra.

The first stage in the reduction in the number of chains occurred in 1971 when the supermarket chain Lefa changed its name to Metro, but the actual merger took place in January 1973. The two supermarket chains Spar Super and Metro became Spar Super with a total of approx. 100 supermarkets and a turnover of approx. 450 million Dkr, a full assortment of everyday commodities and their own butcher's departments. The other two chains Spar and Centra were merged to the chain Spar-Centra-Marked, which has become Centra Marked since then. It included approx. 600 grocery stores with a retail turnover of approx. 750 million Dkr and a superette assortment of traditional grocery products, deep-frozen vegetables and meat, milk products, and refrigerated sliced meat, etc.

At the end of 1974 approx. 85 supermarkets with a turnover of approx. 500 million Dkr were affiliated with the Spar Super chain, and approx. 580 superettes with a turnover of approx. 1050 million Dkr were affiliated with the Centra chain.

The two wholesale firms have divided the distribution between them, so that A/S Styhr og Kjær supplies Northern and Central Jutland, while I/S Kolgros supplies Funen and the rest of Jutland, all of it from three central warehouses and a number of cash-and-carry wholesale stores. Of course, the two wholesale firmsalso delivers to other shops within their respective areas than those affiliated with the two voluntary chains.

The characteristic feature of the process of concentration described is that the original loosely affiliated chains with many and varied shops have become two more tightly affiliated chains with uniform shops as to appearance, size, assortment of goods, advertising, etc.

The last stage in the formation of the group around A/S Styhr og Kjær and I/S Kolgros is the acquisition of the regular chain Vime Konsum A/S in 1973. It is neither of the two firms, however, who has bought the chain, but the family Præstrud, who are also the principal shareholders in A/S Styhr og Kjær. In 1975 Vime had 27 supermarkets plus a number of self-service stores with a total turnover of 213 million Dkr in 1974. Since the acquisition a number of Vime's shops has joined the chain co-operation.

I/S Kolgros is owned, as previously mentioned, by the two original partners: the wholesale firms Chr. Hennings and A/S Paul Wilhjelm, both Odense. These two firms are again owned by the families Hennings and Wilhjelm. Until 1976 A/S Styhr og Kjær owned 30 per cent of the partnership. In 1975 the firm had a turnover of approx. 258 million Dkr and approx. 115 employees. It co-operates with A/S Styhr og Kjær in the wine company Butler Wine and the coffee company Martin Dyrbye A/S.

A/S Styhr og Kjær has a share capital of 10 million Dkr. The share majority is owned by the family Præstrud. Kurt Præstrud is both chairman of the board of directors and a member of the board of management, while Peter Præstrud, who is a member of the board of directors, is also managing director of A/S Vime Konsum. A/S Styhr og Kjær owns the shares in Skandinavisk Kaffe og Kakao Kompagni A/S, Holbæk Vinimport A/S, and the share majority in A/S Jyko, which produces e.g. limonade, A/S Finansieringsselskabet SKK, and Finansieringsinstitutet af 13. marts 1964 KS. In 1976 it bought a cider mill - Dansk Central Most A/S - from Unilever. A/S Styhr of Kjær was previously joint owner of A/S De forenede Kaffekompagnier, but sold its interests in that company in 1973 to the foreign coffee groups Douwe Egberts - Jacobs. Since then, it has again entered the coffee market through the firm Martin Dyrbye A/S. Besides, A/S Styhr og Kjær has interests in the cash-and-carry wholesale stores Metro.

In 1975 the group had a turnover of 614 million Dkr and approx. 350 employees.

### 4.1.3.3. Further Co-operation Within the Grocery Sector.

Besides what has been described above various forms of co-operation exist within the retail and wholesale grocery sector.

The main proportion of grocery stores are members of one of the retail trade associations which have again a joint organisation, DSK - De samvirkende Købmandsforeninger i Danmark. DSK, which is managed by a central board, an executive committee, and a managing director, has a grocers' service and a secretariat.

The grocers' service concerns itself with advisory assistance, modernisation and establishing of shops, sales analysis, operational assistance, and analyses of basic figures and accounts. The secretariat is engaged in legislative issues, issues in connection with labour and management, price and profit problems, and commercial education and training of apprentices.

DSK publishes Dansk Handelsblad and Frit Købmandsskab.

Two proprietary institutions, Købmændenes Finansieringsinstitut and Instituttet for Købmandsetablering, have been established on the initiative of DSK. The aim of these institutes is to provide capital for the acquisition of shops, modernisation and establishing of shops to defend and expand the market positions of the grocery stores towards the Co-operative Socities and the regular chains.

Furthermore, a number of supermarkets within the various chains co-operate through the central buying organisation, Superslagteren, which makes purchases and deliveries to the butcher's departments of the supermarkets. The chain wholesalers involved are: Oceka, Hoki, Nordisk Handelshus, Lund og Rasmussen, and Brdr. Justesen.

As from January 1976 the two wholesale firms, Lund og Rasmussen and Brdr. Justesen, have established a joint deep-freeze firm, Sam-Frost, engaged in stock-keeping, execution of orders, distribution, and purchases of deep-frozen goods for the two companies.

Finally, the most important wholesale grocers co-operate through Foreningen af Dagligvaregrossister with a view to concerted action towards suppliers.

## 4.2. Competition Within the Food Distribution

### 4.2.1. Local Competition

As far as the individual retailer is concerned he will have to adapt himself to his surroundings. First, he must adapt himself to the changing geographical distribution of the population. Secondly, the individual retailer must bring his assortment on line with a particular market or, perhaps, a small section of the market and strike a balance between the products (brands) in which he competes with other retailers in the market, and between the products which help him distinguish his shop from others, because he is the only convenient supplier. Thirdly, the individual retailer must establish himself - not only as a source for purchases of a number of individual products, but also as a desirable place to shop. Many factors are involved in the process of reaching this goal, which is normally characterised as shop image. Fourthly, and finally, the individual retailer must always attract new customers and use many tools to obtain this result. Many of these tools are connected with the broad term: Promotion, which concerns largely the individual products and their prices.

We have previously in this exposition touched upon the adaptation to the population and the changes in the assortment. These adaptations were of a general nature to the whole retail sector. The layout of the shop and the promotion activities,however, are related to the formation of chains. To a large extent, the competition at the retail stage has developed into a competition between the various bargains of the chains. In the daily competition the major importance is attached to the appearance and assortment of the shop, and to bargain prices and advertising. The individual chains lay stress on a uniform appearance of the shops in the form of front posters and window friezes, and on a uniform assortment of goods in the various types of shops - out of considerations for the distribution as well as for the various competition activities.

With a fixed assortment and shop appearnace and ensuing current adjustments, the characteristic feature of the competition within the retail trade are the weekly bargains and their advertising. Chains as well as non-affiliated shops usually publish their bargain prices by intensive advertising in daily newspapers and local papers and/or in advertising papers distributed to households. As far as chains are concerned these advertisements and advertising papers are made on a nationwide basis, financed in part by the suppliers who buy advertising space for their products.

### 4.2.2. Competition Between the Chains

Apart form the competition between shops in different geographical market areas - the rivalry between local shops with respect to purchases made by joint prospective customers - the various chains compete mutually to be able to expand and enlarge their market shares. Of course this is constantly carried on indirectly through the ability of the various shops to hold their own in the competition on the local markets, but it also takes a more direct form. As far as the regular chains and FDB are concerned, it takes the form of shop investments - modernisations and increase in the sales area of existing shops, and the establishing of new supermarkets, departmental stores, low-price departmental stores, possibly through acquisitions. As far as the voluntary shops are concerned it takes the form of attraction of independent shops to the chain or, perhaps, the attraction of shops from other chains. In practice, it takes the form of advertising in trade journals and various forms of support. The consequence is amore direct engagement of the wholesale trade in the retail stage. This fight about market shares must be assumed to lead towards an increase in the concentration, horizontally as well as vertically. The remaining independent shops may be squeezed in the competition with the consequence of a closer co-operation between the shops and the wholesale trade.

## 5. Summary and Conclusions

The purpose of this analysis of the Danish distribution system for processed foodstuffs for the period 1968-1974 is to describe its structural development, and, on that basis, to assess its development in the near future.

### Summary

Section 1 is a short introductory section whose main purpose is to delimit the units which are treated in the sections that follow. The retail as well as the wholesale analysis is delimited to consider only the grocery trade, and the firm is chosen as the unit of analysis. The section further describes which sources have supplied information for the analysis.

Section 2 describes the structure of the distribution system, the development in this structure during the period 1968-1974, and the factors that must be assumed to have determined this development. The main stress of the section is laid on the development in the shop structure, while the development in the sholesale trade is treated on that basis. Important factors determining the structure are the consumption pattern of and the development in the population, the product development and costs at the retail stage, the movement of the population, its motorisation and its housing pattern, and finally the legislation and changes in legislation during the period. We assume that the development in these factors is largely responsible for the structural development in the retail trade and we must also assume that they will influence the future structural development.

The shop structure is defined as the number, tupes, location, and size of shops, their form of service, their assortment and ownership, and finally various forms of integration. It appears from the analysis that the shop structure has changed considerably during the period. The number of shops has fallen by approx. 3000, but at the same time the average turnover per shop has grown substantially. New types of shops such as supermarkets, superettes, and departmental sores with a wider range of goods than the traditional grocery stores and with self-service have become predominant elements. This change in the breadth of the assortment has been made possible through various liberalisations of the foodstuffs legislation. The shop structure has been influenced by the formation of centres financed in part by insurance companies and construction enterprises. All shopping centres usually include one or more supermarkets or departmental sores, and the formation of centres must be expected to continue for some time yet.

The consequences of these structural changes for the wholesale trade have been for instance that the fight about each shop as a customer has become more important, while the wholesaler's share of the total turnover of the individual shops has been falling as a result of the increasing breadth of the assortment. This circumstance coupled with certain cost factors has resulted for instance in a change in the sturcture of the wholesale trade towards fewer wholesale firms and fewer warehouses. The changes have also had the consequence of a closer co-operation between the wholesale and the retail trades.

<u>Section 3</u> describes the development in the concentration during the period measured in terms of the coefficient of variation, the Gini coefficient, the Herfindahl-Hirschmann index, the Entropi index, the concentration ratio, and the Linda index. The section contains three analyses, one for the wholesale trade and two for the retail trade.

In the wholesale analysis the various index values are calculated year by year for the following variables: turnover, number of employees, wage bill, net profits, cash flow, value added, and equity capital. The first analysis of the retail trade concerns the firms of the sector. This analysis calculates the index values for the same variables as the wholesale trade plus the variable gross investments. The second analysis concerns the groups around the various chains. As far as these units are concerned, we can only consider the variable turnover.

A characteristic feature fo the development of the wholesale trade during the period is that the number of firms has been substantially reduced, while the turnover has more than doubled. The analysed test sample consists of the 10 largest wholesale firms (including FDB) with various subsidiary companies, and it appears that these 10 firms account for a large and steadily increasing share of the various variable values. The development in the inequality measurements differs somewhat, but it indicates a slightly increasing inequality, however. The same thing applies to the concentration ratios, but it appears from the Linda index values, however, that the equality among the predominant firms has grown during the period.

The first analysis of the retail trade dels with the co-operative societies and the 9 largest regular chains. The share of this test smaple of the total varibale values of the retail trade has been constant orfalling. A single exception is the number of employees, where there has been an increasing tendency. An important feature is the falling share of the co-operatives. With respect to the inequality within the test sample it shows a falling tendency for most variables. There have been substantial fluctuations, however, for the varibales net profits and gross investments. The Linda index values show that the equality among the predominant firms has grown and that the situation has been stabilised during the last three orfour years.

The second analysis of the retail trade concerns the 14 largest chains and their turnover. During the period the share of these chains of total turnover has increased from some 58 per cent to some 72 per cent. Thus, the chains have strengthened their predominant position. It appears, however, that it is especially the 8 largest chains that have strengthened their position. With respect to the inequality it appears clearly that the predominant chains have become more equal.

Section 4 is a qualitative description of the most important elements in the Danish distribution system for processed foodstuffs. The description is based on the most important chain formations - i.e. the co-operative societies, the regular chains, and the voluntary chains - and the most important firms and events are described on that basis. The section terminates with a description of the competition in the retail trade.

It appears from the description of the co-operative societies that the co-operation has developed substantially in the course of time, so that the various types of shops have now acquired a uniform appearance, making the co-operative societies look much more like a regular chain. Of the regular chains Irma, Dansk Supermarked, and Schou-Epa are described. The description of the voluntary chains touches especially on the formation of superette and supermarket chains and acquisitions within the wholesale trade. The formation of the chains Spar Super and Centra has resulted in particularly substantial acquisitions of wholesale firms.

## Main Conclusions

If we consider the total development in the distribution system for processed foodstuffs we come to the final conclusion that the structure has changed substantially during the period and that the concentration has grown. An ever-incrdasing share of the total food turnover passes the grocery trade, where the number of shops has been steadily decreasing. At the same time the formation of the voluntary chains has resulted in a further increase in the concentration in the wholesale as well as the retail trade. Nearly three fourths of the turnover of the trade now pass the 15 largest chains to which is affiliated a relatively limited number of wholesale units. At the same time the co-operation between wholesale units and retail units has steadily become closer - a circumstance which does not appear from quantitative analyses. In short we can say that the competition within the food distribution is now mainly a matter between the various chains and their wholesale stages, and that the predominant chains have become more equal during the period.

## The Future Development

If we try to estimate the future development on this basis, it may be profitable to consider the three groups of chains separately. First, however, we shall have to estimate the shop structure. We must assume that the number of shops will continue to fall for some years yet. This applies to grocery stores as well as speciality stores with food. Simultaneously, the number of supermarkets and departmental stores will grow. Thus, the latest census shows that the number of supermarkets grew by 42 and the number of departmental stores by 5, including 1 low-price departmental store, in 1975. In 1975 the supermarkets had an increase in turnover of 15 per cent, while the turnover of the departmental stdres grew by 21 per cent. The retail trade as a whole had an increase in turnover of 13.5 per cent. In 1976 it is expected that approx. 70 new supermarkets/ departmental stores will be opened. Thus, we can assume that the turnover of the grocery trade will continue to grow, and that an ever-increasing share will pass supermarkets and departmental stores. The structural change that was documented in the previous sections must, therefore, be expected to continue also in the years to come, perhaps at a slower rate, though. This applies also to sales areas and ranges of goods. At the same time, we must expect that the number of small local shops will fall, while local centres will see an increase in their number of shops.

There is not much that indicates that any legislative changes influencing the form of the shop structure will accur. We might imagine, however, that the governmental authorities would favour the preservation of local community shops in rural districts.

As we have seen the co-operative societies is the largest unit within the trade with a share of the turnover of a little less than 30 per cent. This share has been falling during recent years. We must assume that this market share will be fairly constant in the near future. An extensive programme for the shop development has been initiated by the management - especially in Copenhagen and the large provincial towns - with a view to maintaining and perhaps increasing the market share, while they try to maintain their position in the other districts, for instance by preserving the local co-operatives. As far as the co-operation within the chain is concerned a new and more elaborate chain agreement came into force in 1976, and it has been signed by more than 90 per cent of the possible number of co-operatives. We must also expect that a number of independent co-operatives will be merged with FDB with the consequence of a stronger integration within the chain.

The regular chains must be expected to expand somewhat in the coming years, but their market share will hardly increase substantially. Irma's policy of concentrating on the area east of the Great Belt puts limits to the expansion. Dansk Supermarked has expanded particularly because of the low-price departmental store chain Bilka. It does not seem as if new Bilka stores will be opened in the near future. In return, the chain is getting a foothold with its Føtex stores east of the Great Belt. So far, a supermarket is being established in the centre of Copenhagen.

It is possible that the picture will be disturbed by the entry of a German chain into the Danish market. The Albrecht chain is planning to establish a large number of Aldi Markeder throughtout the country - probably 40 or 50. They are intended as low-price stores with a limited range of goods.

With respect to the voluntary chains we must assume that the most important period of expansion is over. It is true that attempts are made to recruit new members to the various superette and supermarket chains, but it is not an easy matter any more. Grocers outside the chains have probably chosen to keep out of them, and it will presumably be difficult to persuade them to join. This applies for instance to the small chains consisting of 2 to 5 supermarkets. In this way, the competition among the chains will mainly center on new-established supermarkets and superettes, where large credits will probably have to be granted. Thus, it looks as if the chain pattern has been stabilised and the relationship between the chains is relatively fixed.

On the other hand there are efforts to strengthen the relations between the wholesale stage and the shops, for instance by letting the sholesale stage supply larger shares of the shops' assortments. This seems to be one of the few possibilities of the wholesale stage for expanding. We must assume, therefore, that these efforts will continue. As it becomes more and more difficult to increase the accession to the chains the wholesale stage may very well engage more directly in the retail trade by running their own shops. This has already taken place in part by Vime's association with Styhr og Kjær, but this is of course a very costly way of increasing market shares and it will probably not accur to any large extent.

The wholesale stage has also a possibilty of expansion by a larger engagement in the production stage. This has occurred, e.g. with respect to coffee, soft drinks, fruit and vegetables, etc. There is no indication, however, that the backwards integration will increase substantially as it requires too many resources.

It thus appears that the chains will continue to account for a very large share of the turnover of the grocery trade, while an ever-increasing share of the foodstuffs are distributed through this trade. It also seems as if the chain pattern is relatively fixed. A substantial shift in the concentration will occur only, if some of the existing chains are liquidated or joined together. A number of factors relating to the costs of distribution could point towards such a concentration. Add to this the possibility of reducing advertising costs, better purchasing possibilities, and a more advantageous utilisation of systems. On the other hand there is a number of barriers such as the various chain contracts and the established names. In addition it would be possible to derive some of the advantages by a closer co-operation between the various wholesale units. This has happened lately by the establishing of the deep-freeze enterprises Samfrost between the wholesale firms Lund og Rasmussen and Brdr. Justesen and Dybkøl A/S between the various buying associations. But the pattern of comeptition semms to be stable even if the competition activities are many.

## Appendix A: Concentration Measures.

### TABLE OF SYMBOLS

$n$ = total number of units (firms or units of economic activity) making up the industry.

$n^*$ = number of units selected:

- for each hypothesis: 2, 3, 4, 8, 10, 12, 15, 20 etc.
- or constituting the sample analysed.

M = average value of the variable.

V = variation coefficient.

G = GINI coefficient.

H = Herfindahl-Hirschman index.

E = entropy index.

CR = share of the first $n^*$ units (either 4, 8, 10, 12, 15, 20 etc. or of the sample $n^*$ selected) in the total of the variable.

L = Linda index: The value of this index is calculated according to the $n^*$ hypothesis used (either $n^* = 2, 3, 4, 8, 10, 12$ etc. or: $n^*$, $n^*_h$, $n^*_m$).

$n^*_h$ = number of units corresponding to the maximum value of the L index within the sample analysed.

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

$L_s$ = arithmetic mean of the L indexes on the basis of the hypothesis $n^* = 2$ to $n^*_m$, the formula thus being:

$$L_s = \frac{\sum_{n^*=2}^{n^*_m} L_{n^*}}{n^*_m - 1}$$

Preliminary remarks

I. The tables are based on the methodology developed by the Commission of the European Communities for quantitative studies on concentration trends by industry (see First Report on Competition Policy, Part III, pages 157-167- April 1972; Second Report on Competition Policy, Part III - pages 147-161, April 1973).

II. The basic data have been assembled on the responsibility of the institutes which were asked to collect them, as indicated in the heading of each table.

III. Given the documentation available, the contents of each table conform by and large to the plan indicated in the explanatory notes below.

Explanatory notes to the tables

1. Table I shows the trend in the total figures for the following seven variables:

sales
employment
wage and salary bill
net profits
cashflow
gross investments
capital

The table concerns both the total number of units (firms or units of economic activity) making up the industry(n) and a sample (n*).

Here the sample comprises the largest firms in the industry. Their number varies according to the degree of oligopoly in the industry and also according to the individual statistical sources available.

As regards the first three variables (sales, employment, wage and salary bill) the trend in the figures relates both to the industry total and to the sample.

As regards the other four ("financial") variables (net profits, cashflow, gross investments, capital), the trends relate to the sample only.

2. Table 2 shows the trend of concentration for three variables - sales, employment and wage and salary bill.

The measures and indexes used in this table are obtained from the following formulae:

| | Limits | |
|---|---|---|
| | Lower | Upper |
| M = arithmetic mean<br>$M = \frac{x}{n}$ | $>0$ | x |
| V = variation coefficient<br>$V = \frac{\sqrt{\frac{\sum_{i=1}^{n} (x_i - M)^2}{n}}}{M}$ | 0 | $\sqrt{(n - 1)}$ |
| G = Gini coefficient<br>$G = \frac{1}{n \cdot x} \sum_{i=1}^{n} \left[ (i - 1). Fx_i - i.Fx_{i-1} \right]$ | 0 | $\frac{n - 1}{n}$ |
| H = Herfindahl-Hirschman index<br>$H = 1000 \frac{V^2 + 1}{n} = \frac{1000}{x^2} \sum_{i=1}^{n} x_i^2$ | $\frac{1000}{n}$ | 1000 |
| E = entropy index<br>$E = 100 \sum_{i=1}^{n} \frac{x_i}{x} \log \frac{x_i}{x}$ | 100(-logn) | 0 |

The definitions of the formulae are given for simple statistical series. It is assumed, therefore, that the value of the variable is known for each unit of the set.

$n$ = number of units in a set (1)

$x$ = total value of the variable in a set

$i$ = unit i

$x_i$ = value of the variable for unit i

$Fx_i$ = accumulated value of the variable up to unit i

3. Table 3 is intended to show the trend in the level of concentration of large firms. It comprises seven sheets, one for each of the variables used, in the following order:

sales
employment
wage and salary bill
net profits
cash-flow
gross investments
capital

Each variable is intended to highlight a given aspect of the structure of the sample comprising the large firms and enables significant comparisons to be made between the trends in different variables.

Here the trend in the level of large firm's concentration is measured by Linda indexes and concentration ratios.

The Linda index is calculated for each variable, while the concentration ratios relate to the first three variables (sales, employment, wage and salary bill).

In Table 3 the L index is not calculated in respect of the entire industry ($n$) but only for the sample ($n^*$) and for the various hypotheses 4, 8, 10, 12, 15, 20 etc. within the sample.

The table also gives the maximum value ($Ln^*_h$) and the minimum value ($Ln^*_m$) of the various L indexes, calculated in the interval between $n^* = 2$ and $n^* =$ entire sample.

The Linda index is defined as follows:

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

---

(1) It should be remembered that small and family businesses have sometimes had to be disregarded.

where:

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

$A_i$ = cumulative share of the first i undertakings in the set selected

$A_{n^*}$ = 100% = 1

That is to say:

(a) The L or $L_{n^*}$ index is the arithmetic mean of the ($n^* - 1$) ratios of oligopoly equilibrium (EO), each being divided previously by $n^*$.

(b) Each EO ratio is expressed by the average size of the first i firms and that of the remaining ($n^* - i$) firms, where i, in turn, has the values 1 (expressing the ratio between the size of the largest firm and the average size of all the other firms in the sample of the industry selected) to $n^* - 1$ ; this is why the number of EO ratios in question is exactly $n^* - 1$.

The upper and lower limits of the L index are $\infty$ and $\frac{1}{n^*}$ respectively.

The formula for the concentration ratios is the following:

$$CR_{n^*} = \frac{100}{x} \sum_{i=1}^{n^*} x_i$$

where:

$n^*$ = number of units selected:
for each hypothesis: 2, 3, 4, 8, 10, 12, 15, 20 etc.
or constituting the sample analysed.

The upper and lower limits of $CR_{n^*}$ are 100 and > 0 respectively.

4. Table 3 bis is intended to provide an analytical description of the structure of the large firms for each year under consideration.

This enables *significant comparisons* to be made between the indexes calculated on the basis of the different variables. As they relate to the same period and are based on the same hypotheses of n*, these indexes are homogeneous.

It should be stressed that the analytical description in Table 3 bis was designed precisely to give a clear picture of the structure of the firms without revealing individual details.

The values of the L indexes are given for each of the seven variables, and for comparative purposes the

*minimum* and *maximum*

$$\underline{(L_{n^*_m})} \qquad \underline{\underline{(L_{n^*_h})}}$$

are also indicated.

This table, therefore, highlights the complete series of Linda curves from n* = 2 to n* = entire sample.

5. Table 4 summarizes by reference to the $L_s$ index the trends in the various aspects of the structure of the large firms, constituting the sample.

As regards the columns in this table, the following should be noted:

The $\underline{n^*_m}$ indicate the number of firms corresponding to the minimum value of the L index within the sample (n*) selected, while $\underline{L_{n^*_m}}$ is the value of the relevant L index. The arithmetic mean of the L indexes from $L_2$ to $L_{n^*_m}$ inclusive, gives the $L_s$ index, which expresses the degree of equilibrium and of concentration between the first $n^*_m$ firms in the industry.

## Appendix B: Concentration Tables.

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1968 - 1974

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 245 | 3707,015 | 100 | 10 | 3014,000 | 100 | 81,31 |
| 1969 | 202 | 4157,904 | 112 | 10 | 3426,000 | 113 | 82,40 |
| 1970 | 172 | 4354,890 | 130 | 10 | 3908,000 | 129 | 80,50 |
| 1971 | 145 | 5258,965 | 141 | 10 | 4414,000 | 146 | 83,93 |
| 1972 | 111 | 6216,972 | 167 | 10 | 5230,000 | 173 | 84,12 |
| 1973 | 106 | 7319,984 | 210 | 10 | 6742,000 | 223 | 86,22 |
| 1974 | 104 | 9180,906 | 247 | 10 | 7970,000 | 264 | 86,81 |

VARIABLE : 02 EFFECTIF

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1968 | 245 | 4,883 | 100 | 10 | 3,708 | 100 | 75,94 |
| 1969 | 202 | 4,951 | 101 | 10 | 3,799 | 102 | 76,73 |
| 1970 | 172 | 5,056 | 103 | 10 | 3,922 | 105 | 77,57 |
| 1971 | 145 | 5,050 | 103 | 10 | 3,970 | 107 | 78,61 |
| 1972 | 111 | 5,372 | 110 | 10 | 4,160 | 112 | 77,44 |
| 1973 | 106 | 5,862 | 120 | 10 | 4,710 | 127 | 80,35 |
| 1974 | 104 | 5,943 | 121 | 10 | 4,627 | 124 | 77,86 |

# CONCENTRATION INDUSTRIELLE

## EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 03 MASSE SALARIALE (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 245 | 147,895 | 100 | 10 | 111,000 | 100 | 75,05 |
| 1969 | 202 | 164,016 | 110 | 10 | 126,000 | 113 | 76,82 |
| 1970 | 172 | 185,064 | 125 | 10 | 141,000 | 127 | 76,19 |
| 1971 | 145 | 205,985 | 139 | 10 | 164,000 | 147 | 79,62 |
| 1972 | 111 | 238,934 | 161 | 10 | 185,000 | 166 | 77,43 |
| 1973 | 106 | 325,976 | 220 | 10 | 263,000 | 236 | 80,68 |
| 1974 | 104 | 376,036 | 254 | 10 | 292,000 | 263 | 77,65 |

VARIABLE : 04 BENEFICE NET (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 244 | 39,015 | 100 | 9 | 32,200 | 100 | 82,53 |
| 1969 | 202 | 44,496 | 114 | 10 | 37,200 | 115 | 83,60 |
| 1970 | 172 | 48,958 | 125 | 10 | 39,400 | 122 | 80,48 |
| 1971 | 145 | 44,850 | 114 | 10 | 38,100 | 118 | 84,95 |
| 1972 | 110 | 64,178 | 164 | 9 | 56,300 | 174 | 87,72 |
| 1973 | 106 | 55,888 | 143 | 10 | 48,400 | 150 | 86,60 |
| 1974 | 104 | 46,132 | 118 | 10 | 38,800 | 120 | 84,11 |

## CONCENTRATION INDUSTRIELLE

### EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

**TABLEAU NO 1**

**1968 - 1974**

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 05 CASH FLOW (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 244 | 53,135 | 100 | 9 | 43,500 | 100 | 81,87 |
| 1969 | 202 | 57,276 | 107 | 10 | 47,100 | 108 | 82,23 |
| 1970 | 172 | 62,812 | 118 | 10 | 50,500 | 116 | 80,40 |
| 1971 | 145 | 60,125 | 113 | 10 | 50,000 | 114 | 83,16 |
| 1972 | 110 | 92,017 | 173 | 9 | 80,200 | 184 | 87,16 |
| 1973 | 106 | 93,264 | 175 | 10 | 80,400 | 184 | 86,21 |
| 1974 | 104 | 84,526 | 159 | 10 | 72,400 | 166 | 85,65 |

VARIABLE : 07 CAPITAUX PROPRES (1000 Dkr)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1968 | | | | 10 | .541 | 100 | |
| 1969 | | | | 10 | .575 | 106 | |
| 1970 | | | | 10 | .608 | 112 | |
| 1971 | | | | 10 | .609 | 112 | |
| 1972 | | | | 10 | .658 | 121 | |
| 1973 | | | | 10 | .744 | 137 | |
| 1974 | | | | 10 | .767 | 141 | |

IV/A-3

# CONCENTRATION INDUSTRIELLE

## EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 10 VALEUR AJOUTEE (1000 Dkr)

| ANNEE | TOTAL | | | ECHANTILLON | | | E/T % |
|---|---|---|---|---|---|---|---|
| | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | |
| 1968 | 245 | 282,005 | 100 | 10 | 192,000 | 100 | 68,08 |
| 1969 | 202 | 301,024 | 106 | 10 | 220,000 | 114 | 73,08 |
| 1970 | 172 | 347,932 | 123 | 10 | 253,000 | 131 | 72,72 |
| 1971 | 145 | 371,970 | 131 | 10 | 288,000 | 150 | 77,43 |
| 1972 | 111 | 462,999 | 164 | 10 | 352,000 | 183 | 76,03 |
| 1973 | 106 | 746,040 | 264 | 10 | 603,000 | 314 | 80,83 |
| 1974 | 104 | 869,036 | 308 | 10 | 691,000 | 359 | 79,51 |

## EVOLUTION DE LA CONCENTRATION

**TABLEAU NO 2**

### TOTAL DU SECTEUR

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 VALEUR AJOUTEE

| VARIABLE | ANNEE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1968 | | | | | | 1969 | | | | | |
| | N | M | V | G | H | E | N | M | V | G | H | E |
| 0 1 | 245 | 15.131 | 8,58349 | .79452 | 304.60147 | -111.52013 | 202 | 20.584 | 7,61786 | .80061 | 292.23679 | -109.95715 |
| 0 2 | 245 | .020 | 7,89416 | .73948 | 258.43967 | -124.56049 | 202 | .025 | 7,05794 | .74279 | 251.55696 | -122.34292 |
| 0 3 | 245 | .604 | 7,95209 | .73094 | 262.18674 | -124.65231 | 202 | .812 | 7,29253 | .74455 | 268.22276 | -119.89214 |
| 0 4 | 244 | .160 | 8,84322 | .81088 | 324.60078 | -100.71746 | 202 | .220 | 7,19439 | .81454 | 261.18431 | -107.66448 |
| 0 5 | 244 | .218 | 8,55396 | .80266 | 303.97636 | -106.62370 | 202 | .284 | 6,87187 | .79936 | 238.72572 | -113.55011 |
| 010 | 245 | 1.151 | 6,98160 | .65901 | 203.03178 | -141.87140 | 202 | 1.490 | 6,44604 | .70482 | 210.65053 | -132.09008 |

| VARIABLE | 1970 | | | | | | 1971 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 1 | 172 | 28.226 | 6,86551 | .77684 | 279.85569 | -112.85665 | 145 | 36.269 | 6,48527 | .80704 | 296.95664 | -104.66573 |
| 0 2 | 172 | .029 | 6,47953 | .74710 | 249.90885 | -119.59149 | 145 | .035 | 5,94639 | .75236 | 250.75518 | -116.35329 |
| 0 3 | 172 | 1.076 | 6,67799 | .73426 | 265.09005 | -119.06706 | 145 | 1.421 | 6,53040 | .76431 | 283.26911 | -111.06307 |
| 0 4 | 172 | .285 | 6,53544 | .77953 | 254.13974 | -111.23117 | 145 | .309 | 6,15890 | .82071 | 268.49687 | -101.11572 |
| 0 5 | 172 | .365 | 6,37401 | .77742 | 242.02325 | -114.11042 | 145 | .415 | 5,63950 | .79842 | 226.23398 | -111.01269 |
| 010 | 172 | 2.023 | 5,93277 | .69644 | 210.45209 | -130.82694 | 145 | 2.565 | 5,69554 | .73922 | 230.61464 | -120.48881 |

IV/A-3

# EVOLUTION DE LA CONCENTRATION

*TABLEAU NO 2 *

## TOTAL DU SECTEUR

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 VALEUR AJOUTEE

| VARIABLE | ANNEE 1972 N | M | V | G | H | E | 1973 N | M | V | G | H | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 1 | 111 | 56.009 | 5.45946 | .79779 | 277.52872 | -104.65968 | 106 | 73.773 | 5.65443 | .81868 | 311.06253 | -97.88636 |
| 0 2 | 111 | .048 | 4.75727 | .72675 | 212.89723 | -120.01813 | 106 | .055 | 4.95610 | .75550 | 241.16013 | -112.84526 |
| 0 3 | 111 | 2.153 | 5.13496 | .72977 | 246.55692 | -115.44703 | 106 | 3.075 | 5.72811 | .76511 | 318.97421 | -102.80734 |
| 0 4 | 110 | .583 | 5.73189 | .84424 | 307.76917 | -90.10947 | 106 | .527 | 3.57516 | .80686 | 130.01702 | -117.63773 |
| 0 5 | 110 | .837 | 5.78833 | .83768 | 313.67927 | -91.83556 | 106 | .880 | 4.02956 | .80880 | 162.61618 | -113.58050 |
| 010 | 111 | 4.171 | 4.83830 | .71325 | 219.90209 | -120.77643 | 106 | 7.038 | 5.99078 | .76773 | 348.01400 | -99.70463 |

| VARIABLE | 1974 N | M | V | G | H | E |
|---|---|---|---|---|---|---|
| 0 1 | 104 | 88.278 | 5.67381 | .82386 | 319.15541 | -96.18920 |
| 0 2 | 104 | .057 | 4.73618 | .72835 | 225.30170 | -117.43952 |
| 0 3 | 104 | 3.616 | 5.40437 | .73171 | 290.45428 | -109.32114 |
| 0 4 | 104 | .444 | 3.22788 | .77284 | 109.79989 | -126.01943 |
| 0 5 | 104 | .813 | 3.79571 | .79731 | 148.14792 | -117.89220 |
| 010 | 104 | 8.356 | 5.65924 | .75110 | 317.56715 | -104.74206 |

IV/A-3

# EVOLUTION DE LA CONCENTRATION

## INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = | | | | | | | N | COURBES L | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | ECHANTILLON | | 1ER MAXIMUM | | 2EM MAXIMUM | | MINIMUM | |
| | | 4 | 8 | 10 | 12 | 20 | 30 | 40 | | N* | L N* | N* H< | L N*H< | N* H | L N*H | N* M | L N*M |
| 1968 | L | 1.92614 | 1.13416 | 1.12224 | .00000 | .00000 | .00000 | .00000 | 245 | 10 | 1.12224 | 2 | 3.85962 | 2 | 3.85962 | 10 | 1.12224 |
| | CR | 69.95 | 79.50 | 81.31 | .00 | .00 | .00 | .00 | | | 81.31 | | | | | | |
| 1969 | L | 1.70064 | .99285 | .94223 | .00000 | .00000 | .00000 | .00000 | 202 | 10 | .94223 | 2 | 3.92500 | 2 | 3.92500 | 9 | .93749 |
| | CR | 69.19 | 80.02 | 82.40 | .00 | .00 | .00 | .00 | | | 82.40 | | | | | | |
| 1970 | L | 1.67959 | .99932 | .93473 | .00000 | .00000 | .00000 | .00000 | 172 | 10 | .93473 | 2 | 4.18667 | 2 | 4.18667 | 10 | .93473 |
| | CR | 67.75 | 78.15 | 80.50 | .00 | .00 | .00 | .00 | | | 80.50 | | | | | | |
| 1971 | L | 1.60152 | .98564 | .88476 | .00000 | .00000 | .00000 | .00000 | 145 | 10 | .88476 | 2 | 4.11618 | 2 | 4.11618 | 10 | .88476 |
| | CR | 70.36 | 81.21 | 83.93 | .00 | .00 | .00 | .00 | | | 83.93 | | | | | | |
| 1972 | L | 1.49615 | .84675 | .81444 | .00000 | .00000 | .00000 | .00000 | 111 | 10 | .81444 | 2 | 3.46405 | 2 | 3.46405 | 10 | .81444 |
| | CR | 69.57 | 81.45 | 84.12 | .00 | .00 | .00 | .00 | | | 84.12 | | | | | | |
| 1973 | L | 1.70090 | .89161 | .85499 | .00000 | .00000 | .00000 | .00000 | 106 | 10 | .85499 | 2 | 4.09712 | 2 | 4.09712 | 10 | .85499 |
| | CR | 71.32 | 83.59 | 86.22 | .00 | .00 | .00 | .00 | | | 86.22 | | | | | | |
| 1974 | L | 1.78502 | .88567 | .84204 | .00000 | .00000 | .00000 | .00000 | 104 | 10 | .84204 | 2 | 4.69907 | 2 | 4.69907 | 10 | .84204 |
| | CR | 71.06 | 84.11 | 86.81 | .00 | .00 | .00 | .00 | | | 86.81 | | | | | | |

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IV/A-3               E V O L U T I O N   D E   L A   C O N C E N T R A T I O N                ******************
                     *********************************************************               *  TABLEAU NO  3 *
                                                                                             *                *
                       INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)                     *  1968  -  1974 *
                       *************************************************                     *                *
                                                                                             ******************

PAYS          :  DANEMARK
INSTITUT      :  I.F.S. COPENHAGEN-AARHUS
SECTEUR       :  DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

**************************************************************************************************************************************
              VARIABLE  :   02 EFFECTIF
**************************************************************************************************************************************
     *     *                                                                  *     I             *          C O U R B E S       L
ANNEE* L   *     INDICES  L  ET  CR  RELATIFS A  N* =                         *     I             ****************************************
     * ET  *                                                                  *     I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:   MINIMUM
     * CR  ****************************************************************** *     I------------*------------:------------:-----------
     *  %  *          :        :        :        :        :        :         *  N  I   :   L     *N* :  L      :N* :  L     :N* :  L
     *     *     4    :    8   :   10   :   12   :   20   :   30   :   40    *     I N*:   N*    * H<:  N*H<   :  H:  N*H   :  M:  N*M
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1968 * L   * 1.82773: 1.19451: 1.29191:  .00000:  .00000:  .00000:  .00000* 245I10 : 1.29191* 2 : 3.46429: 2 : 3.46429: 7 : 1.06647
     * CR  *65.21   :74.75   :75.94   :  .00   :  .00   :  .00   :  .00    *     I    :75.94    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1969 * L   * 1.60313:  .99112: 1.15531:  .00000:  .00000:  .00000:  .00000* 202I10 : 1.15531* 2 : 3.45714: 2 : 3.45714: 8 :  .99112
     * CR  *65.38   :75.48   :76.73   :  .00   :  .00   :  .00   :  .00    *     I    :76.73    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1970 * L   * 1.44452:  .99616: 1.12909:  .00000:  .00000:  .00000:  .00000* 172I10 : 1.12909* 2 : 3.41111: 2 : 3.41111: 8 :  .99616
     * CR  *66.50   :76.23   :77.57   :  .00   :  .00   :  .00   :  .00    *     I    :77.57    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1971 * L   * 1.42194:  .97680: 1.11599:  .00000:  .00000:  .00000:  .00000* 145I10 : 1.11599* 2 : 3.22632: 2 : 3.22632: 8 :  .97680
     * CR  *66.87   :77.21   :78.61   :  .00   :  .00   :  .00   :  .00    *     I    :78.61    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1972 * L   * 1.20991:  .74478:  .91792:  .00000:  .00000:  .00000:  .00000* 111I10 :  .91792* 2 : 2.96500: 2 : 2.96500: 8 :  .74478
     * CR  *64.20   :75.87   :77.44   :  .00   :  .00   :  .00   :  .00    *     I    :77.44    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1973 * L   * 1.37071:  .74896:  .94806:  .00000:  .00000:  .00000:  .00000* 106I10 :  .94806* 2 : 3.47250: 2 : 3.47250: 8 :  .74896
     * CR  *65.93   :78.86   :80.35   :  .00   :  .00   :  .00   :  .00    *     I    :80.35    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
1974 * L   * 1.37484:  .76459:  .96713:  .00000:  .00000:  .00000:  .00000* 104I10 :  .96713* 2 : 3.39750: 2 : 3.39750: 8 :  .76459
     * CR  *63.81   :76.43   :77.86   :  .00   :  .00   :  .00   :  .00    *     I    :77.86    *   :        :   :        :   :
*******************:********:********:********:********:********:*************I***:************:*********:***:********:***:********
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IV/A-3

## EVOLUTION DE LA CONCENTRATION

### INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 03 MASSE SALARIALE

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = | | | | | | | N | COURBES L ECHANTILLON | | | 1ER MAXIMUM | 2EM MAXIMUM | | MINIMUM | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 8 | 10 | 12 | 20 | 30 | 40 | | N* | L N* | N* H< | L N*H< | N* H | L N*H | N* M | L N*M |
| 1968 | L | 1.96697 | 1.41196 | 1.33548 | .00000 | .00000 | .00000 | .00000 | 245 | 10 | 1.33548 | 2 | 3.08333 | 2 | 3.08333 | 6 | 1.24076 |
| | CR | 65.59 | 73.70 | 75.05 | .00 | .00 | .00 | .00 | | | 75.05 | | | | | | |
| 1969 | L | 1.89031 | 1.13188 | 1.26147 | .00000 | .00000 | .00000 | .00000 | 202 | 10 | 1.26147 | 2 | 3.19231 | 2 | 3.19231 | 8 | 1.13188 |
| | CR | 66.46 | 75.60 | 76.82 | .00 | .00 | .00 | .00 | | | 76.82 | | | | | | |
| 1970 | L | 1.91667 | 1.20739 | 1.36972 | .00000 | .00000 | .00000 | .00000 | 172 | 10 | 1.36972 | 2 | 3.10000 | 2 | 3.10000 | 7 | 1.19705 |
| | CR | 66.46 | 75.11 | 76.19 | .00 | .00 | .00 | .00 | | | 76.19 | | | | | | |
| 1971 | L | 1.80364 | 1.10673 | 1.24903 | .00000 | .00000 | .00000 | .00000 | 145 | 10 | 1.24903 | 2 | 3.14706 | 2 | 3.14706 | 8 | 1.10673 |
| | CR | 68.94 | 78.16 | 79.62 | .00 | .00 | .00 | .00 | | | 79.62 | | | | | | |
| 1972 | L | 1.57181 | .92387 | 1.18492 | .00000 | .00000 | .00000 | .00000 | 111 | 10 | 1.18492 | 2 | 3.19444 | 2 | 3.19444 | 8 | .92387 |
| | CR | 66.13 | 76.17 | 77.43 | .00 | .00 | .00 | .00 | | | 77.43 | | | | | | |
| 1973 | L | 2.11217 | 1.15066 | 1.46771 | .00000 | .00000 | .00000 | .00000 | 106 | 10 | 1.46771 | 2 | 4.52500 | 2 | 4.52500 | 8 | 1.15066 |
| | CR | 70.56 | 79.45 | 80.68 | .00 | .00 | .00 | .00 | | | 80.68 | | | | | | |
| 1974 | L | 1.94715 | 1.10589 | 1.50499 | .00000 | .00000 | .00000 | .00000 | 104 | 10 | 1.50499 | 2 | 4.52273 | 2 | 4.52273 | 8 | 1.10589 |
| | CR | 67.81 | 76.59 | 77.65 | .00 | .00 | .00 | .00 | | | 77.65 | | | | | | |

IV/A-3

## EVOLUTION DE LA CONCENTRATION

### INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 04 BENEFICE NET

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = 4 | 8 | 10 | 12 | 20 | 30 | 40 | N | COURBES L ECHANTILLON N* | L N* | 1ER MAXIMUM N* H< | L N*H< | 2EM MAXIMUM N* H | L N*H | MINIMUM N* M | L N*M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1968 | L | 2.34740 | 2.45797 | .00000 | .00000 | .00000 | .00000 | .00000 | 244 | 9 | 2.85095 | 2 | 1.50000 | 9 | 2.85095 | 2 | 1.50000 |
| | CR | 77.92 | 82.28 | .00 83,03 | .00 | .00 | .00 | .00 | | | 82.53 | | | | | | |
| 1969 | L | 1.60424 | 1.18171 | 1.28506 | .00000 | .00000 | .00000 | .00000 | 202 | 10 | 1.28506 | 3 | 1.73034 | 3 | 1.73034 | 8 | 1.18171 |
| | CR | 73.94 | 82.25 | 83.60 | .00 | .00 | .00 | .00 | | | 83.60 | | | | | | |
| 1970 | L | 1.54460 | 1.52655 | 2.01455 | .00000 | .00000 | .00000 | .00000 | 172 | 10 | 2.01455 | 4 | 1.54460 | 10 | 2.01455 | 7 | 1.29998 |
| | CR | 73.12 | 79.66 | 80.48 | .00 | .00 | .00 | .00 | | | 80.48 | | | | | | |
| 1971 | L | 1.67005 | 1.31737 | 1.69106 | .00000 | .00000 | .00000 | .00000 | 145 | 10 | 1.69106 | 2 | 1.11702 | 3 | 1.88070 | 2 | 1.11702 |
| | CR | 75.81 | 83.61 | 84.95 | .00 | .00 | .00 | .00 | | | 84.95 | | | | | | |
| 1972 | L | 1.59871 | 1.45311 | .00000 | .00000 | .00000 | .00000 | .00000 | 110 | 9 | 1.90244 | 2 | 1.33065 | 3 | 2.02355 | 2 | 1.33065 |
| | CR | 79.62 | 87.41 | .00 | .00 | .00 | .00 | .00 | | | 87.72 | | | | | | |
| 1973 | L | .60180 | .40229 | .43604 | .00000 | .00000 | .00000 | .00000 | 106 | 10 | .43604 | 2 | .54545 | 4 | .60180 | 3 | .37659 |
| | CR | 64.41 | 82.49 | 86.60 | .00 | .00 | .00 | .00 | | | 86.60 | | | | | | |
| 1974 | L | .58040 | .33493 | .29260 | .00000 | .00000 | .00000 | .00000 | 104 | 10 | .29260 | 2 | 1.10377 | 2 | 1.10377 | 10 | .29260 |
| | CR | 54.63 | 76.74 | 84.11 | .00 | .00 | .00 | .00 | | | 84.11 | | | | | | |

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IV/A-3                     E V O L U T I O N   D E   L A   C O N C E N T R A T I O N             ********************
                           *********************************************************             *  TABLEAU NO  3   *
                                                                                                 *                  *
                            INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)                    *  1968  -  1974   *
                            ****************************************************                 *                  *
                                                                                                 ********************

PAYS         :  DANEMARK
INSTITUT     :  I.F.S. COPENHAGEN-AARHUS
SECTEUR      :  DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

*************************************************************************************************************************************
                VARIABLE  :   05   CASH    FLOW
*************************************************************************************************************************************
     *     *                                                                      *     I           *       C O U R B E S     L
ANNEE* L   *     INDICES  L  ET  CR  RELATIFS A  N* =                             *     I           *****************************************
     * ET  *                                                                      *     I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:   MINIMUM
     * CR  ************************************************************************     I-----------------------------------------------------
     *  %  *         :         :         :         :         :         :          *  N  I   :    L     *N* : L        :N* :  L       :N* : L
     *     *    4    :    8    :   10    :   12    :   20    :   30    :   40     *     I N*:    N*    * H<:  N*H<    :  H:   N*H    :  M:  N*M
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1968 * L   * 2.31250: 1.49285:  .00000:  .00000:  .00000:  .00000:  .00000* 244I 9 : 1.58991* 3 : 2.61905: 3 : 2.61905: 7 : 1.35342
     * CR  *73.77   :81.30   :82.20   :  .00   :  .00   :  .00   :  .00    *    I   :81.87     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1969 * L   * 1.32986: 1.05296: 1.12506:  .00000:  .00000:  .00000:  .00000* 202I10 : 1.12506* 3 : 1.73404: 3 : 1.73404: 7 : 1.02260
     * CR  *71.06   :80.66   :82.23   :  .00   :  .00   :  .00   :  .00    *    I   :82.23     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1970 * L   * 1.32416: 1.09022: 1.49445:  .00000:  .00000:  .00000:  .00000* 172I10 : 1.49445* 2 : 1.61111: 2 : 1.61111: 8 : 1.09022
     * CR  *71.64   :79.44   :80.40   :  .00   :  .00   :  .00   :  .00    *    I   :80.40     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1971 * L   * 1.51073:  .86507: 1.12895:  .00000:  .00000:  .00000:  .00000* 145I10 : 1.12895* 3 : 1.58114: 3 : 1.58114: 9 :  .82731
     * CR  *69.69   :81.33   :83.16   :  .00   :  .00   :  .00   :  .00    *    I   :83.16     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1972 * L   * 1.60167: 1.31076:  .00000:  .00000:  .00000:  .00000:  .00000* 110I 9 : 1.74304* 3 : 1.88743: 3 : 1.88743: 7 : 1.23139
     * CR  *78.14   :86.83   :  .00   :  .00   :  .00   :  .00   :  .00    *    I   :87.16     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1973 * L   *  .82440:  .50202:  .57967:  .00000:  .00000:  .00000:  .00000* 106I10 :  .57967* 2 : 1.10714: 2 : 1.10714: 8 :  .50202
     * CR  *67.23   :83.10   :86.21   :  .00   :  .00   :  .00   :  .00    *    I   :86.21     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
1974 * L   *  .82559:  .44566:  .42242:  .00000:  .00000:  .00000:  .00000* 104I10 :  .42242* 3 :  .99930: 3 :  .99930: 9 :  .41493
     * CR  *61.52   :80.45   :85.65   :  .00   :  .00   :  .00   :  .00    *    I   :85.65     *   :         :   :         :   :
*******************:*********:*********:*********:*********:*********:*************I***:*************:*********:***:*********:***:********
```

IV/A-3

# EVOLUTION DE LA CONCENTRATION

## INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 07 CAPITAUX PROPRES

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = | | | | | | | N ECHANTILLON | | COURBES L 1ER MAXIMUM | | 2EM MAXIMUM | | MINIMUM | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 8 | 10 | 12 | 20 | 30 | 40 | N* | L N* | N* H< | L N*H< | N* H | L N*H | N* M | L N*M |
| 1968 | L | 4.90527 | 3.01627 | 2.59097 | .00000 | .00000 | .00000 | .00000 | 10 | 2.59097 | 3 | 5.28509 | 3 | 5.28509 | 10 | 2.59097 |
| | CR | | | | | | | | | | | | | | | |
| 1969 | L | 4.87714 | 3.04711 | 2.65624 | .00000 | .00000 | .00000 | .00000 | 10 | 2.65624 | 3 | 5.48333 | 3 | 5.48333 | 10 | 2.65624 |
| | CR | | | | | | | | | | | | | | | |
| 1970 | L | 3.84062 | 2.64990 | 2.57562 | .00000 | .00000 | .00000 | .00000 | 10 | 2.57562 | 2 | 4.85000 | 2 | 4.85000 | 10 | 2.57562 |
| | CR | | | | | | | | | | | | | | | |
| 1971 | L | 3.61102 | 2.28953 | 2.26340 | .00000 | .00000 | .00000 | .00000 | 10 | 2.26340 | 2 | 4.30000 | 2 | 4.30000 | 9 | 2.25419 |
| | CR | | | | | | | | | | | | | | | |
| 1972 | L | 3.42646 | 2.12077 | 2.08159 | .00000 | .00000 | .00000 | .00000 | 10 | 2.08159 | 2 | 4.05645 | 2 | 4.05645 | 9 | 1.96645 |
| | CR | | | | | | | | | | | | | | | |
| 1973 | L | 2.92588 | 1.74001 | 1.95224 | .00000 | .00000 | .00000 | .00000 | 10 | 1.95224 | 2 | 4.92105 | 2 | 4.92105 | 8 | 1.74001 |
| | CR | | | | | | | | | | | | | | | |
| 1974 | L | 2.69042 | 1.60972 | 1.59248 | .00000 | .00000 | .00000 | .00000 | 10 | 1.59248 | 2 | 3.74324 | 2 | 3.74324 | 9 | 1.54827 |
| | CR | | | | | | | | | | | | | | | |

(=)

IV/A-3

## EVOLUTION DE LA CONCENTRATION

### INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

VARIABLE : 10 VALEUR AJOUTEE

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = | | | | | | | N | COURBES L | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | ECHANTILLON | | 1ER MAXIMUM | | 2EM MAXIMUM | | MINIMUM | |
| | | 4 | 8 | 10 | 12 | 20 | 30 | 40 | | N* | L N* | N* H< | L N*H< | N* H | L N*H | N* M | L N*M |
| 1968 | L | 1.89240 | 1.29666 | 1.21029 | .00000 | .00000 | .00000 | .00000 | 245 | 10 | 1.21029 | 2 | 2.36538 | 2 | 2.36538 | 7 | 1.17581 |
| | CR | 59.57 | 66.67 | 68.08 | .00 | .00 | .00 | .00 | | | 68.08 | | | | | | |
| 1969 | L | 1.50356 | .95956 | 1.07866 | .00000 | .00000 | .00000 | .00000 | 202 | 10 | 1.07866 | 2 | 2.37500 | 2 | 2.37500 | 7 | .95826 |
| | CR | 62.12 | 71.76 | 73.08 | .00 | .00 | .00 | .00 | | | 73.08 | | | | | | |
| 1970 | L | 1.47236 | 1.02917 | 1.00870 | .00000 | .00000 | .00000 | .00000 | 172 | 10 | 1.00870 | 2 | 2.56667 | 2 | 2.56667 | 7 | 1.00616 |
| | CR | 62.08 | 70.99 | 72.72 | .00 | .00 | .00 | .00 | | | 72.72 | | | | | | |
| 1971 | L | 1.43888 | .97825 | .91978 | .00000 | .00000 | .00000 | .00000 | 145 | 10 | .91978 | 2 | 2.52941 | 2 | 2.52941 | 10 | .91978 |
| | CR | 65.33 | 75.27 | 77.43 | .00 | .00 | .00 | .00 | | | 77.43 | | | | | | |
| 1972 | L | 1.42561 | .87813 | .91107 | .00000 | .00000 | .00000 | .00000 | 111 | 10 | .91107 | 2 | 2.75000 | 2 | 2.75000 | 8 | .87813 |
| | CR | 63.93 | 74.08 | 76.03 | .00 | .00 | .00 | .00 | | | 76.03 | | | | | | |
| 1973 | L | 2.46241 | 1.35903 | 1.36433 | .00000 | .00000 | .00000 | .00000 | 106 | 10 | 1.36433 | 2 | 5.57692 | 2 | 5.57692 | 8 | 1.35903 |
| | CR | 71.04 | 79.35 | 80.83 | .00 | .00 | .00 | .00 | | | 80.83 | | | | | | |
| 1974 | L | 2.16146 | 1.15419 | 1.21480 | .00000 | .00000 | .00000 | .00000 | 104 | 10 | 1.21480 | 2 | 5.75000 | 2 | 5.75000 | 8 | 1.15419 |
| | CR | 68.47 | 78.02 | 79.51 | .00 | .00 | .00 | .00 | | | 79.51 | | | | | | |

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IV/A-3                                    CONCENTRATION   INDUSTRIELLE                        *******************
                                          ****************************                        * TABLEAU NO 3BIS *
                                                                                              *******************
                                     TABLEAU STRUCTUREL DES COURBES LINDA
                                     ************************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES                                                                     ANNEE : 1968
  ********************************************************************************************************************
  *    *                                          V A R I A B L E                                                    *
  *  N *******************************************************************************************************************
  *    *    01    *    02    *    03    *    04    *    05    *    07    *    10    *          *          *          *
  *    *  CHIFFRE * EFFECTIF *   MASSE  * BENEFICE *   CASH   * CAPITAUX *  VALEUR  *          *          *          *
  *    *D'AFFAIRES*          *SALARIALE *   NET    *   FLOW   *  PROPRES *  AJOUTEE *          *          *          *
  ********************************************************************************************************************
  *    *          *          *          *          *          *          *          *          *          *          *
  *  2 * 3.85962  * 3.46429  * 3.08333  * 1.50000  * 1.75000  * 5.27381  * 2.30538  *          *          *          *
  *    * ======== * ======== * ======== *          *          *          *          *          *          *          *
  *    *          *          *          * -------- *          *          * ======== *          *          *          *
  *  3 * 2.50689  * 2.40591  * 2.56481  * 2.50000  * 2.61905  * 5.28509  * 2.23690  *          *          *          *
  *    *          *          *          *          * ======== * ======== *          *          *          *          *
  *  4 * 1.92614  * 1.82773  * 1.96697  * 2.34740  * 2.31250  * 4.90527  * 1.89240  *          *          *          *
  *  5 * 1.52556  * 1.40174  * 1.48086  * 2.21259  * 1.89159  * 3.91648  * 1.55844  *          *          *          *
  *  6 * 1.29204  * 1.09720  * 1.24076  * 1.99299  * 1.52593  * 3.24989  * 1.32766  *          *          *          *
  *    *          *          * -------- *          *          *          *          *          *          *          *
  *  7 * 1.13093  * 1.06647  * 1.25584  * 2.43702  * 1.35542  * 3.26382  * 1.17581  *          *          *          *
  *    *          * -------- *          *          * -------- *          * -------- *          *          *          *
  *  8 * 1.13416  * 1.19451  * 1.41196  * 2.45757  * 1.49285  * 3.01627  * 1.29666  *          *          *          *
  *  9 * 1.12879  * 1.28466  * 1.40332  * 2.85095  * 1.58991  * 2.72002  * 1.27837  *          *          *          *
  *    *          *          *          * ======== *          *          *          *          *          *          *
  * 10 * 1.12224  * 1.29191  * 1.33548  *          *          * 2.59097  * 1.21029  *          *          *          *
  *    * -------- *          *          *          *          * -------- *          *          *          *          *
  ********************************************************************************************************************
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# CONCENTRATION INDUSTRIELLE

*** TABLEAU NO 3BIS ***

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

ANNEE : 1969

| N* | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | 02 EFFECTIF | 03 MASSE SALARIALE | 04 BENEFICE NET | 05 CASH FLOW | 07 CAPITAUX PROPRES | 10 VALEUR AJOUTEE | | | |
| 2 | 3.92500 | 3.45714 | 3.19231 | 1.31250 | 1.44444 | 5.23333 | 2.37500 | | | |
| | ======== | ======== | ======== | | | | ======== | | | |
| 3 | 2.55889 | 2.32904 | 2.52619 | 1.73034 | 1.73404 | 5.48333 | 2.11535 | | | |
| | | | | ======== | ======== | ======== | | | | |
| 4 | 1.70064 | 1.60313 | 1.89031 | 1.60424 | 1.32986 | 4.87714 | 1.50356 | | | |
| 5 | 1.35021 | 1.30726 | 1.52011 | 1.36769 | 1.10292 | 3.84446 | 1.18975 | | | |
| 6 | 1.14632 | 1.06892 | 1.21077 | 1.26961 | 1.06619 | 3.15690 | 1.10063 | | | |
| 7 | .99453 | 1.00727 | 1.13875 | 1.23980 | 1.02260 | 3.25346 | .95826 | | | |
| | | | | | -------- | | -------- | | | |
| 8 | .99285 | .99112 | 1.13188 | 1.18171 | 1.05296 | 3.04711 | .95956 | | | |
| | | -------- | -------- | -------- | | | | | | |
| 9 | .93749 | 1.12252 | 1.25836 | 1.29358 | 1.09644 | 2.77070 | 1.07296 | | | |
| | -------- | | | | | | | | | |
| 10 | .94223 | 1.15531 | 1.26147 | 1.28506 | 1.12506 | 2.65624 | 1.07866 | | | |
| | | | | | | -------- | | | | |

# CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

ANNEE : 1970

| N | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | 02 EFFECTIF | 03 MASSE SALARIALE | 04 BENEFICE NET | 05 CASH FLOW | 07 CAPITAUX PROPRES | 10 VALEUR AJOUTEE | | | |
| 2 | 4.18667 | 3.41111 | 3.10000 | 1.43750 | 1.61111 | 4.85000 | 2.50667 | | | |
| | ======== | ======== | ======== | | ======== | ======== | ======== | | | |
| 3 | 2.44038 | 2.06868 | 2.29167 | 1.52402 | 1.48629 | 4.15302 | 1.99416 | | | |
| 4 | 1.67959 | 1.44452 | 1.91667 | 1.54460 | 1.32416 | 3.84062 | 1.47236 | | | |
| 5 | 1.33021 | 1.23323 | 1.48363 | 1.48094 | 1.33220 | 3.40514 | 1.20300 | | | |
| 6 | 1.16800 | 1.06092 | 1.24275 | 1.41411 | 1.25600 | 2.82629 | 1.11033 | | | |
| 7 | 1.00556 | 1.00645 | 1.19705 | 1.29998 | 1.20473 | 2.59965 | 1.00616 | | | |
| | | | -------- | -------- | | | -------- | | | |
| 8 | .99932 | .99616 | 1.20739 | 1.52655 | 1.09042 | 2.04990 | 1.02917 | | | |
| | | -------- | | | -------- | | | | | |
| 9 | .95426 | 1.10888 | 1.35877 | 1.54647 | 1.22731 | 2.69147 | 1.05091 | | | |
| 10 | .93473 | 1.12909 | 1.36972 | 2.01455 | 1.49445 | 2.57562 | 1.00870 | | | |
| | -------- | | | | | | | | | |
| | | | | ======== | | -------- | | | | |

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IV/A-3                              CONCENTRATION   INDUSTRIELLE                    *******************
                                    ****************************                    * TABLEAU NO 3BIS *
                                                                                    *******************
                                 TABLEAU STRUCTUREL DES COURBES LINDA
                                 ************************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES                                                          ANNEE : 1971
   ****************************************************************************************************************
   *    *                                          V A R I A B L E                                                *
   * N* ***********************************************************************************************************
   *    *    01     *    02     *    03     *    04     *    05     *    07     *    10     *          *          *          *
   *    * CHIFFRE   * EFFECTIF  *  MASSE    * BENEFICE  *   CASH    * CAPITAUX  * VALEUR    *          *          *          *
   *    *D'AFFAIRES*           *SALARIALE  *   NET     *   FLOW    *  PROPRES  * AJOUTEE   *          *          *          *
   ****************************************************************************************************************
   *    *           *           *           *           *           *           *           *          *          *          *
   *  2 *  4.11618  *  3.22632  *  3.14706  *  1.11702  *  1.22642  *  4.50000  *  2.52941  *          *          *          *
   *    * ========  * ========  * ========  *           *           *           *           *          *          *          *
   *    *           *           *           * --------  *           * ========  * ========  *          *          *          *
   *  3 *  2.35601  *  2.08124  *  2.35432  *  1.88070  *  1.58114  *  3.75083  *  1.92006  *          *          *          *
   *    *           *           *           * ========  * ========  *           *           *          *          *          *
   *  4 *  1.60152  *  1.42194  *  1.80364  *  1.67005  *  1.51073  *  3.01102  *  1.45888  *          *          *          *
   *  5 *  1.28461  *  1.14381  *  1.43287  *  1.41124  *  1.22511  *  3.01987  *  1.13503  *          *          *          *
   *  6 *  1.12054  *  1.02564  *  1.27421  *  1.30716  *  1.00721  *  2.52913  *  1.07049  *          *          *          *
   *  7 *   .99501  *   .97778  *  1.16299  *  1.33911  *   .83271  *  2.30733  *   .97527  *          *          *          *
   *  8 *   .98564  *   .97680  *  1.10673  *  1.31737  *   .86507  *  2.28953  *   .97825  *          *          *          *
   *    *           * --------  * --------  *           *           *           *           *          *          *          *
   *  9 *   .92498  *  1.05735  *  1.11484  *  1.22628  *   .82731  *  2.25419  *   .97226  *          *          *          *
   *    *           *           *           *           * --------  * --------  *           *          *          *          *
   * 10 *   .88476  *  1.11599  *  1.24903  *  1.69106  *  1.12895  *  2.26340  *   .91978  *          *          *          *
   *    * --------  *           *           *           *           *           * --------  *          *          *          *
   ****************************************************************************************************************
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## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

ANNEE : 1972

| N | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | 02 EFFECTIF | 03 MASSE SALARIALE | 04 BENEFICE NET | 05 CASH FLOW | 07 CAPITAUX PROPRES | 10 VALEUR AJOUTEE | | | |
| 2 | 3.46405 | 2.96500 | 3.19444 | 1.53065 | 1.76239 | 4.05645 | 2.75000 | | | |
| | ======== | ======== | ======== | | | | | | | |
| | | | | -------- | | ======== | ======== | | | |
| 3 | 2.07598 | 1.56583 | 1.82016 | 2.02355 | 1.88743 | 3.62772 | 1.71062 | | | |
| | | | | ======== | ======== | | | | | |
| 4 | 1.49615 | 1.20991 | 1.57181 | 1.59871 | 1.60167 | 3.42646 | 1.42561 | | | |
| 5 | 1.21849 | 1.01954 | 1.23106 | 1.34256 | 1.36267 | 2.83166 | 1.15673 | | | |
| 6 | 1.04232 | .95629 | 1.19031 | 1.34089 | 1.23496 | 2.34884 | 1.07909 | | | |
| 7 | .94949 | .84270 | 1.05789 | 1.41094 | 1.23139 | 2.10240 | .97174 | | | |
| | | | | | -------- | | | | | |
| 8 | .84675 | .74478 | .92387 | 1.45311 | 1.31076 | 2.12077 | .87813 | | | |
| | | -------- | -------- | | | | -------- | | | |
| 9 | .84591 | .82784 | 1.00273 | 1.90244 | 1.74504 | 1.96645 | .90003 | | | |
| | | | | | | -------- | | | | |
| 10 | .81444 | .91792 | 1.18492 | | | 2.08159 | .91107 | | | |
| | -------- | | | | | | | | | |

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IV/A-3                                      CONCENTRATION   INDUSTRIELLE                                       *******************
                                           ***********************                                         * TABLEAU NO 3BIS *
                                                                                                            *******************
                                        TABLEAU STRUCTUREL DES COURBES LINDA
                                        ********************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES                                                                      ANNEE : 1973
    *************************************************************************************************************
    *    *                                              V A R I A B L E                                          *
    * N* *********************************************************************************************************
    *    *    01     *    02     *    03     *    04     *    05     *    07     *    10     *         *         *         *
    *    * CHIFFRE   * EFFECTIF  *  MASSE    * BENEFICE  *   CASH    * CAPITAUX  * VALEUR    *         *         *         *
    *    *D'AFFAIRES*           *SALARIALE * NET       *  FLOW     *  PROPRES* AJOUTEE   *         *         *         *
    *************************************************************************************************************
    *    *           *           *           *           *           *           *           *         *         *         *
    *  2 *  4.09712  *  3.47250  *  4.52500  *   .54545  *  1.10714  *  4.92105  *  5.57692  *         *         *         *
    *    * ========  * ========  * ========  *           * ========  * ========  * ========  *         *         *         *
    *  3 *  2.43666  *  1.81958  *  2.42859  *   .57659  *   .66047  *  3.11508  *  3.21086  *         *         *         *
    *    *           *           *           * --------  *           *           *           *         *         *         *
    *  4 *  1.70090  *  1.37071  *  2.11217  *   .60180  *   .82440  *  2.92568  *  2.40241  *         *         *         *
    *    *           *           *           * ========  *           *           *           *         *         *         *
    *  5 *  1.34417  *  1.10342  *  1.65426  *   .56764  *   .77487  *  2.44952  *  1.87605  *         *         *         *
    *  6 *  1.06887  *   .91985  *  1.47404  *   .49299  *   .66616  *  2.10713  *  1.55974  *         *         *         *
    *  7 *   .97921  *   .82300  *  1.31861  *   .42345  *   .56690  *  1.88820  *  1.41266  *         *         *         *
    *  8 *   .89161  *   .74896  *  1.15066  *   .40229  *   .50202  *  1.74001  *  1.35903  *         *         *         *
    *    *           * --------  * --------  *           * --------  * --------  * --------  *         *         *         *
    *  9 *   .89194  *   .85818  *  1.17575  *   .40667  *   .51391  *  1.75375  *  1.37265  *         *         *         *
    * 10 *   .85499  *   .94806  *  1.46771  *   .43604  *   .57967  *  1.95224  *  1.36433  *         *         *         *
    *    * --------  *           *           *           *           *           *           *         *         *         *
    *************************************************************************************************************
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IV/A-3

## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

### TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

ANNEE : 1974

| N | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | 02 EFFECTIF | 03 MASSE SALARIALE | 04 BENEFICE NET | 05 CASH FLOW | 07 CAPITAUX PROPRES | 10 VALEUR AJOUTEE | | | |
| 2 | 4.69907 | 3.39750 | 4.52273 | 1.10377 | .98540 | 3.74324 | 5.75000 | | | |
| | ======== | ======== | ======== | ======== | | ======== | ======== | | | |
| 3 | 2.63332 | 1.78208 | 2.41962 | .06197 | .99930 | 2.75437 | 5.27938 | | | |
| | | | | | ======== | | | | | |
| 4 | 1.78502 | 1.37484 | 1.94715 | .58040 | .82559 | 2.09042 | 2.10146 | | | |
| 5 | 1.28709 | 1.03851 | 1.53391 | .47181 | .65801 | 2.23044 | 1.65902 | | | |
| 6 | 1.04202 | .90474 | 1.45026 | .38934 | .56062 | 1.95304 | 1.30628 | | | |
| 7 | .97292 | .83110 | 1.27502 | .36686 | .49241 | 1.68964 | 1.23859 | | | |
| 8 | .88567 | .76459 | 1.10589 | .33493 | .44566 | 1.60972 | 1.15419 | | | |
| | | -------- | -------- | | | | -------- | | | |
| 9 | .88531 | .86763 | 1.16769 | .30509 | .41493 | 1.54827 | 1.20635 | | | |
| | | | | | -------- | -------- | | | | |
| 10 | .84204 | .96713 | 1.50499 | .29260 | .42242 | 1.59248 | 1.21480 | | | |
| | -------- | | | -------- | | | | | | |

## CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

### TABLEAU RECAPITULATIF DES INDICES L

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

| VARIABLES | ANNEE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1968 INDICES | | | 1969 INDICES | | | 1970 INDICES | | | 1971 INDICES | | | 1972 INDICES | | |
| | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS |
| 01 CHIFFRE D'AFFAIRES | 10 | 1.12224 | 1.73626 | 9 | .93749 | 1.70074 | 10 | .93473 | 1.65319 | 10 | .88476 | 1.58547 | 10 | .81444 | 1.41706 |
| 02 EFFECTIF | 7 | 1.06647 | 1.87722 | 8 | .99112 | 1.68055 | 8 | .99616 | 1.60301 | 8 | .97680 | 1.55050 | 8 | .74478 | 1.32915 |
| 03 MASSE SALARIALE | 6 | 1.24076 | 2.06735 | 8 | 1.13188 | 1.80147 | 7 | 1.19705 | 1.87196 | 8 | 1.10673 | 1.75455 | 8 | .92387 | 1.56994 |
| 04 BENEFICE NET | 2 | 1.50000 | 1.50000 | 8 | 1.18171 | 1.38655 | 7 | 1.29998 | 1.45019 | 2 | 1.11702 | 1.11702 | 2 | 1.33065 | 1.33065 |
| 05 CASH FLOW | 7 | 1.35342 | 1.90875 | 7 | 1.02260 | 1.28334 | 8 | 1.09022 | 1.32925 | 9 | .82731 | 1.13446 | 7 | 1.23139 | 1.51338 |
| 07 CAPITAUX PROPRES | 10 | 2.59097 | 3.80240 | 10 | 2.65624 | 3.81363 | 10 | 2.57562 | 3.28797 | 9 | 2.25419 | 3.00524 | 9 | 1.96645 | 2.81759 |
| 10 VALEUR AJOUTEE | 7 | 1.17581 | 1.75943 | 7 | .95826 | 1.54009 | 7 | 1.00616 | 1.55878 | 10 | .91978 | 1.32660 | 8 | .87813 | 1.42456 |

IV/A-3

## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 4**

### TABLEAU RECAPITULATIF DES INDICES L

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE EN GROS
ENTREPRISES

| VARIABLES | A N N E E | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973 INDICES | | | 1974 INDICES | | | 0 INDICES | | | INDICES | | | INDICES | | |
| | N*M | LN*M | LS | N*M | LN*M | LS | N*M | LN*M | LS | N*M | LN*M | LS | N*M | LN*M | LS |
| 01 CHIFFRE D'AFFAIRES | 10 | .85499 | 1.58505 | 10 | .84204 | 1.67027 | | | | | | | | | |
| 02 EFFECTIF | 8 | .74896 | 1.46543 | 8 | .76459 | 1.44191 | | | | | | | | | |
| 03 MASSE SALARIALE | 8 | 1.15066 | 2.09476 | 8 | 1.10589 | 2.03637 | | | | | | | | | |
| 04 BENEFICE NET | 3 | .37659 | .46102 | 10 | .29260 | .50079 | | | | | | | | | |
| 05 CASH FLOW | 8 | .50202 | .72885 | 9 | .41493 | .67474 | | | | | | | | | |
| 07 CAPITAUX PROPRES | 8 | 1.74001 | 2.74384 | 9 | 1.54827 | 2.27739 | | | | | | | | | |
| 10 **VALEUR AJOUTEE** | 8 | 1.35903 | 2.49395 | 8 | 1.15419 | 2.36413 | | | | | | | | | |

## CONCENTRATION INDUSTRIELLE

TABLEAU NO 1
1968 - 1974

### EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 11 | 4565.001 | 100 | 10 | 4565.000 | 100 | 100.00 |
| 1969 | 11 | 5060.001 | 110 | 10 | 5060.000 | 110 | 100.00 |
| 1970 | 11 | 5753.001 | 126 | 10 | 5753.000 | 126 | 100.00 |
| 1971 | 11 | 6602.001 | 144 | 10 | 6602.000 | 144 | 100.00 |
| 1972 | 11 | 7639.001 | 167 | 10 | 7639.000 | 167 | 100.00 |
| 1973 | 11 | 8966.001 | 196 | 10 | 8966.000 | 196 | 100.00 |
| 1974 | 11 | 10387.001 | 227 | 10 | 10387.000 | 227 | 100.00 |

VARIABLE : 02 EFFECTIF

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 11 | 19.470 | 100 | 10 | 19.469 | 100 | 99.99 |
| 1969 | 11 | 20.022 | 102 | 10 | 20.021 | 102 | 100.00 |
| 1970 | 11 | 20.460 | 105 | 10 | 20.459 | 105 | 100.00 |
| 1971 | 11 | 20.801 | 106 | 10 | 20.800 | 106 | 100.00 |
| 1972 | 11 | 21.062 | 108 | 10 | 21.061 | 108 | 100.00 |
| 1973 | 11 | 20.412 | 104 | 10 | 20.411 | 104 | 100.00 |
| 1974 | 11 | 21.161 | 108 | 10 | 21.160 | 108 | 100.00 |

IV/A-3

## CONCENTRATION INDUSTRIELLE

## EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1
1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 03 MASSE SALARIALE (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 11 | 387,001 | 100 | 10 | 387,000 | 100 | 100,00 |
| 1969 | 11 | 430,001 | 111 | 10 | 430,000 | 111 | 100,00 |
| 1970 | 11 | 489,001 | 126 | 10 | 489,000 | 126 | 100,00 |
| 1971 | 11 | 568,001 | 146 | 10 | 568,000 | 146 | 100,00 |
| 1972 | 11 | 631,001 | 163 | 10 | 631,000 | 163 | 100,00 |
| 1973 | 11 | 742,001 | 191 | 10 | 742,000 | 191 | 100,00 |
| 1974 | 11 | 897,001 | 231 | 10 | 897,000 | 231 | 100,00 |

VARIABLE : 04 BENEFICE NET (1000 Dkr)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1968 | 9 | 93,501 | 100 | 8 | 93,500 | 100 | 100,00 |
| 1969 | 10 | 100,601 | 107 | 9 | 100,600 | 107 | 100,00 |
| 1970 | 10 | 105,401 | 112 | 9 | 105,400 | 112 | 100,00 |
| 1971 | 9 | 98,401 | 105 | 8 | 98,400 | 105 | 100,00 |
| 1972 | 10 | 286,501 | 306 | 9 | 286,500 | 306 | 100,00 |
| 1973 | 10 | 177,001 | 189 | 9 | 177,000 | 189 | 100,00 |
| 1974 | 10 | 157,801 | 168 | 9 | 157,800 | 168 | 100,00 |

# CONCENTRATION INDUSTRIELLE

## EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1
1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 05 CASH FLOW (1000 Dkr)

| ANNEE | TOTAL | | | ECHANTILLON | | | E/T % |
|---|---|---|---|---|---|---|---|
| | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | |
| 1968 | 10 | 137.001 | 100 | 9 | 137.000 | 100 | 100.00 |
| 1969 | 10 | 144.001 | 105 | 9 | 144.000 | 105 | 100.00 |
| 1970 | 10 | 156.401 | 114 | 9 | 156.400 | 114 | 100.00 |
| 1971 | 9 | 157.301 | 114 | 8 | 157.300 | 114 | 100.00 |
| 1972 | 10 | 209.201 | 152 | 9 | 209.200 | 152 | 100.00 |
| 1973 | 10 | 263.601 | 192 | 9 | 263.600 | 192 | 100.00 |
| 1974 | 10 | 250.901 | 183 | 9 | 250.900 | 183 | 100.00 |

VARIABLE : 06 INVESTIS BRUTS (1000 Dkr)

| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
|---|---|---|---|---|---|---|---|
| 1968 | 11 | 99.901 | 100 | 10 | 99.900 | 100 | 100.00 |
| 1969 | 11 | 134.901 | 135 | 10 | 134.900 | 135 | 100.00 |
| 1970 | 11 | 175.101 | 175 | 10 | 175.100 | 175 | 100.00 |
| 1971 | 11 | 152.001 | 152 | 10 | 152.000 | 152 | 100.00 |
| 1972 | 11 | 170.201 | 170 | 10 | 170.200 | 170 | 100.00 |
| 1973 | 11 | 213.201 | 213 | 10 | 213.200 | 213 | 100.00 |
| 1974 | 11 | 223.501 | 223 | 10 | 223.500 | 223 | 100.00 |

## CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1968 - 1974

### EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 07 CAPITAUX PROPRES (1000 Dkr)

| | TOTAL | | | ECHANTILLON | | | |
|---|---|---|---|---|---|---|---|
| ANNEE | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | E/T % |
| 1968 | 11 | 575,701 | 100 | 10 | 575,700 | 100 | 100,00 |
| 1969 | 11 | 652,801 | 113 | 10 | 652,800 | 113 | 100,00 |
| 1970 | 11 | 727,101 | 126 | 10 | 727,100 | 126 | 100,00 |
| 1971 | 11 | 759,501 | 131 | 10 | 759,500 | 131 | 100,00 |
| 1972 | 11 | 803,201 | 139 | 10 | 803,200 | 139 | 100,00 |
| 1973 | 11 | 884,501 | 153 | 10 | 884,500 | 153 | 100,00 |
| 1974 | 11 | 861,101 | 149 | 10 | 861,100 | 149 | 100,00 |
| VARIABLE : 10 VALEUR AJOUTEE (1000 Dkr) | | | | | | | |
| 1968 | 11 | 751,001 | 100 | 10 | 751,000 | 100 | 100,00 |
| 1969 | 11 | 841,001 | 111 | 10 | 841,000 | 111 | 100,00 |
| 1970 | 11 | 957,001 | 127 | 10 | 957,000 | 127 | 100,00 |
| 1971 | 11 | 1104,001 | 147 | 10 | 1104,000 | 147 | 100,00 |
| 1972 | 11 | 1266,001 | 168 | 10 | 1266,000 | 168 | 100,00 |
| 1973 | 11 | 1509,001 | 200 | 10 | 1509,000 | 200 | 100,00 |
| 1974 | 11 | 1728,001 | 230 | 10 | 1728,000 | 230 | 100,00 |

# EVOLUTION DE LA CONCENTRATION

**TABLEAU NO 2**

## TOTAL DU SECTEUR

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 VALEUR AJOUTEE

| VARIABLE | ANNEE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1968 | | | | | | 1969 | | | | | |
| | N | M | V | G | H | E | N | M | V | G | H | E |
| 0 1 | 11 | 415.000 | 2.36705 | .81338 | 600.26501 | -39.20097 | 11 | 460.000 | 2.35318 | .80650 | 594.31408 | -40.24993 |
| 0 2 | 11 | 1.770 | 2.16680 | .78318 | 517.73094 | -46.74445 | 11 | 1.820 | 2.12633 | .77855 | 501.93257 | -48.02105 |
| 0 3 | 11 | 35.182 | 2.05506 | .78177 | 474.84214 | -48.53937 | 11 | 39.091 | 2.02953 | .77759 | 465.36290 | -49.38670 |
| 0 4 | 9 | 10.389 | 2.35683 | .83991 | 728.29464 | -24.32719 | 10 | 10.060 | 2.08572 | .86102 | 821.31019 | -19.43716 |
| 0 5 | 10 | 13.700 | 2.36067 | .83765 | 657.27742 | -30.14446 | 10 | 14.400 | 2.48317 | .84027 | 716.61138 | -27.79494 |
| 0 6 | 11 | 9.082 | 1.72599 | .74000 | 380.88678 | -57.15534 | 11 | 12.264 | 1.71782 | .74543 | 359.17296 | -56.11378 |
| 0 7 | 11 | 52.336 | 2.66218 | .85966 | 735.20189 | -26.21943 | 11 | 59.346 | 2.70340 | .86196 | 755.30889 | -24.87516 |
| 010 | 11 | 68.273 | 2.13670 | .79022 | 525.60582 | -45.51336 | 11 | 76.455 | 2.17669 | .78132 | 521.63443 | -46.44734 |

| VARIABLE | 1970 | | | | | | 1971 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 1 | 11 | 523.000 | 2.28044 | .79026 | 565.07307 | -43.51526 | 11 | 600.182 | 2.41542 | .77671 | 537.09673 | -46.18864 |
| 0 2 | 11 | 1.860 | 2.04016 | .75746 | 469.29484 | -51.78994 | 11 | 1.891 | 1.95815 | .74459 | 439.48807 | -54.53270 |
| 0 3 | 11 | 44.455 | 1.88306 | .74177 | 413.26607 | -55.37207 | 11 | 51.630 | 1.83896 | .73751 | 398.34466 | -56.98362 |
| 0 4 | 10 | 10.540 | 2.49617 | .84173 | 723.08866 | -27.15873 | 9 | 10.933 | 2.43399 | .83444 | 769.36560 | -23.63060 |
| 0 5 | 10 | 15.640 | 2.32438 | .82863 | 640.27570 | -32.65518 | 9 | 17.478 | 2.19953 | .80652 | 648.66014 | -32.86263 |
| 0 6 | 11 | 15.918 | 2.10743 | .77555 | 494.05922 | -48.44597 | 11 | 13.818 | 1.83793 | .74102 | 397.99944 | -56.39967 |
| 0 7 | 11 | 66.100 | 2.53153 | .84567 | 690.75288 | -30.18294 | 11 | 69.040 | 2.53769 | .83758 | 676.35326 | -32.12979 |
| 010 | 11 | 87.000 | 2.03533 | .75406 | 467.50513 | -52.03035 | 11 | 100.364 | 1.94679 | .73732 | 435.45296 | -55.24559 |

## EVOLUTION DE LA CONCENTRATION

TABLEAU NO 2

### TOTAL DU SECTEUR

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 **VALEUR AJOUTEE**

| VARIABLE | ANNEE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1972 | | | | | | 1973 | | | | | |
| | N | M | V | G | H | E | N | M | V | G | H | E |
| 0 1 | 11 | 694.455 | 2,11017 | .77269 | 495.71104 | -48,97389 | 11 | 815.091 | 2,05790 | .76726 | 475.90533 | -50,34194 |
| 0 2 | 11 | 1.915 | 1,84629 | .74361 | 400.79860 | -56,13308 | 11 | 1.856 | 1,68280 | .71967 | 348.34742 | -60,77607 |
| 0 3 | 11 | 57,364 | 1,85025 | .75003 | 402.13002 | -55,36701 | 11 | 67.455 | 1,77759 | .73462 | 378.16755 | -58,03256 |
| 0 4 | 10 | 28.650 | 1,54885 | .72366 | 339.69415 | -49,29894 | 10 | 17.700 | 2,30989 | .83265 | 633.56110 | -31,83862 |
| 0 5 | 10 | 20.920 | 2,32277 | .82208 | 639.52388 | -33,37909 | 10 | 26.360 | 2,14774 | .81183 | 561.28037 | -37,67924 |
| 0 6 | 11 | 15.473 | 1,85951 | .76027 | 405.25358 | -53,39678 | 11 | 19.382 | 1,79595 | .74509 | 384.13086 | -55,78608 |
| 0 7 | 11 | 73.018 | 2,46729 | .83452 | 644.31862 | -33,47719 | 11 | 80.409 | 2,31071 | .84629 | 663.96778 | -31,04207 |
| 010 | 11 | 115.091 | 1,79821 | .73072 | 384.86771 | -58,03728 | 11 | 137.182 | 1,75450 | .72763 | 370.75092 | -58,85058 |

| VARIABLE | 1974 | | | | | |
|---|---|---|---|---|---|---|
| 0 1 | 11 | 944.273 | 2,04694 | .76594 | 471.81554 | -50,60156 |
| 0 2 | 11 | 1.924 | 1,64091 | .71322 | 335.68869 | -61,84105 |
| 0 3 | 11 | 81,546 | 1,79541 | .73943 | 383.95582 | -57,23948 |
| 0 4 | 10 | 15.780 | 2,69121 | .86159 | 824.26054 | -19,07554 |
| 0 5 | 10 | 25.090 | 2,29837 | .81621 | 628.25236 | -34,49814 |
| 0 6 | 11 | 20.318 | 2,06132 | .79617 | 477.18364 | -46,03542 |
| 0 7 | 11 | 78.282 | 2,56092 | .85586 | 687.11829 | -27,73460 |
| 010 | 11 | 157.091 | 1,76456 | .72927 | 373.96875 | -58,61012 |

```
IV/A-3            E V O L U T I O N   D E   L A   C O N C E N T R A T I O N              ******************
                  *****************************************************              *  TABLEAU NO  3  *
                                                                                     *                 *
                   INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)                 *  1968  -  1974  *
                   ************************************************                  *                 *
                                                                                     ******************

PAYS          :  DANEMARK
INSTITUT      :  I.F.S. COPENHAGEN-AARHUS
SECTEUR       :  DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

****************************************************************************************************************************************
                VARIABLE  :   01 CHIFFRE D'AFFAIRES
****************************************************************************************************************************************
     *     *                                                                         *     I              *         C O U R B E S      L
ANNEE* L   *      INDICES  L  ET  CR  RELATIFS A  N* =                               *     I              *****************************************
     * ET  *                                                                         *     I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:   MINIMUM
     * CR  *****************************************************************************   I------------*-----------:-----------:-----------
     *  %  *         :         :         :         :         :         :             * N I    :   L     *N* : L       :N* :   L     :N* :  L
     *     *    4    :    8    :   10    :   12    :   20    :   30    :   40        *   I N* :   N*    * H<: N*H<    : H :   N*H   : M :  N*M
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1968 * L  * 3.15133: 3.65136: 3.50975:  .00000:  .00000:  .00000:  .00000*  11I10 : 3.50975* 4 : 3.15133: 9 : 3.66902: 5 : 2.89231
     * CR *95.58   :99.34   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1969 * L  * 3.26471: 3.13553: 3.00175:  .00000:  .00000:  .00000:  .00000*  11I10 : 3.00175* 4 : 3.26471: 4 : 3.26471: 7 : 2.72922
     * CR *94.80   :99.21   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1970 * L  * 3.05346: 2.19952: 2.52994:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.52994* 4 : 3.05346: 4 : 3.05346: 7 : 2.17419
     * CR *93.52   :99.24   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1971 * L  * 2.88186: 1.96243: 2.29165:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.29165* 4 : 2.88186: 4 : 2.88186: 7 : 1.79892
     * CR *92.21   :99.18   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1972 * L  * 1.65322: 2.38784: 3.00259:  .00000:  .00000:  .00000:  .00000*  11I10 : 3.00259* 2 : 2.78723:10 : 3.00259: 4 : 1.65322
     * CR *94.12   :99.37   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1973 * L  * 1.54816: 2.41806: 2.92736:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.92736* 2 : 2.67918:10 : 2.92736: 4 : 1.54816
     * CR *94.23   :99.29   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
1974 * L  * 1.58907: 2.34110: 2.85936:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.85936* 2 : 2.66358:10 : 2.85936: 3 : 1.56360
     * CR *94.19   :99.23   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
******************:*********:*********:*********:*********:*********:***************I***:*************:*********:***:*********:***:********
```

IV/A-3

# EVOLUTION DE LA CONCENTRATION

## INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 02 EFFECTIF

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = 4 | 8 | 10 | 12 | 20 | 30 | 40 | N | COURBES L: ECHANTILLON N* | L N* | 1ER MAXIMUM N* H< | L N*H< | 2EM MAXIMUM N* H | L N*H | MINIMUM N* M | L N*M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1968 | L | 2.25059 | 2.73495 | 3.03358 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 3.03358 | 2 | 2.73480 | 10 | 3.03358 | 6 | 1.87413 |
|  | CR | 93.73 | 99.38 | 99.99 | .00 | .00 | .00 | .00 |  |  | 99.99 |  |  |  |  |  |  |
| 1969 | L | 2.10685 | 2.56866 | 2.65511 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.65511 | 2 | 2.46179 | 9 | 2.67622 | 3 | 1.90825 |
|  | CR | 93.98 | 99.22 | 00.00 | .00 | .00 | .00 | .00 |  |  | 00.00 |  |  |  |  |  |  |
| 1970 | L | 1.89311 | 1.70030 | 2.16199 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.16199 | 2 | 2.25950 | 2 | 2.25950 | 7 | 1.59531 |
|  | CR | 92.41 | 99.21 | 00.00 | .00 | .00 | .00 | .00 |  |  | 00.00 |  |  |  |  |  |  |
| 1971 | L | 1.67887 | 1.63907 | 1.92928 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 1.92928 | 2 | 2.06875 | 2 | 2.06875 | 7 | 1.44136 |
|  | CR | 91.77 | 99.03 | 00.00 | .00 | .00 | .00 | .00 |  |  | 00.00 |  |  |  |  |  |  |
| 1972 | L | 1.16032 | 2.02658 | 3.44944 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 3.44944 | 2 | 1.69541 | 10 | 3.44944 | 4 | 1.16032 |
|  | CR | 93.75 | 99.35 | 00.00 | .00 | .00 | .00 | .00 |  |  | 00.00 |  |  |  |  |  |  |
| 1973 | L | .97711 | 1.82044 | 2.99475 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.99475 | 2 | 1.33720 | 10 | 2.99475 | 4 | .97711 |
|  | CR | 92.42 | 99.31 | 00.00 | .00 | .00 | .00 | .00 |  |  | 00.00 |  |  |  |  |  |  |
| 1974 | L | .91462 | 1.69720 | 2.86602 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.86602 | 2 | 1.22244 | 10 | 2.86602 | 4 | .91462 |
|  | CR | 92.40 | 99.26 | 00.00 | .00 | .00 | .00 | .00 |  |  | 00.00 |  |  |  |  |  |  |

# EVOLUTION DE LA CONCENTRATION

## INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 03 MASSE SALARIALE

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = 4 | 8 | 10 | 12 | 20 | 30 | 40 | N | COURBES L ECHANTILLON N* | L N* | 1ER MAXIMUM N* H< | L N*H< | 2EM MAXIMUM N* H | L N*H | MINIMUM N* M | L N*M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1968 | L | 2,57323 | 2.53639 | 3.19348 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 3.19348 | 2 | 1.69333 | 10 | 3.19348 | 2 | 1.69333 |
| | CR | 94.32 | 99.48 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1969 | L | 2.14686 | 2.29921 | 3.19414 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 3.19414 | 2 | 1.68072 | 10 | 3.19414 | 2 | 1.68072 |
| | CR | 94.42 | 99.53 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1970 | L | 1,65292 | 1.60666 | 2.02197 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.02197 | 4 | 1.65292 | 10 | 2.02197 | 7 | 1.43904 |
| | CR | 91.62 | 99.18 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1971 | L | 1.53858 | 1.62999 | 2.16831 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.16831 | 4 | 1.53858 | 10 | 2.16831 | 7 | 1.37983 |
| | CR | 91.37 | 99.30 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1972 | L | 1.20633 | 2.29574 | 3.09545 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 3.09545 | 2 | 1.53279 | 10 | 3.09545 | 4 | 1.20633 |
| | CR | 94.29 | 99.37 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1973 | L | 1.06340 | 2.07370 | 2.43548 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.43548 | 2 | 1.57037 | 10 | 2.43548 | 4 | 1.06340 |
| | CR | 93.67 | 99.19 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1974 | L | 1.10928 | 2.15553 | 2.61502 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 2.61502 | 2 | 1.57622 | 10 | 2.61502 | 4 | 1.10928 |
| | CR | 93.98 | 99.22 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |

```
IV/A-3                    E V O L U T I O N   D E   L A   C O N C E N T R A T I O N                  *******************
                          *********************************************************                   *  TABLEAU NO  3  *
                                                                                                      *                 *
                            INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)                         *  1968  -  1974  *
                            *****************************************************                     *                 *
                                                                                                      *******************

      PAYS          :  DANEMARK
      INSTITUT      :  I.F.S. COPENHAGEN-AARHUS
      SECTEUR       :  DISTRIBUTION ALIMENTAIRE AU DETAIL
      ENTREPRISES

*************************************************************************************************************************************
                  VARIABLE  :   04 BENEFICE   NET
*************************************************************************************************************************************
     *    *                                                                       *      I              *          C O U R B E S       L
ANNEE* L  *      INDICES  L  ET  CR  RELATIFS A  N* =                             *      I              ****************************************
     * ET *                                                                       *      I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:    MINIMUM
     * CR *********************************************************************** *      I-------------------------:------------:------------
     *  % *        :         :         :         :         :         :            *  N   I   :   L      *N* : L          :N* :  L     :N* :  L
     *    *    4   :    8    :   10    :   12    :   20    :   30    :     40     *      I N*:   N*     * H<:  N*H<      : H :  N*H   : M :  N*M
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1968 * L  * 6.46627:15.69342:  .00000:  .00000:  .00000:  .00000:  .00000*    9I 8 :15.69342* 2 :  3.59091: 7 :16.73779: 2 : 3.59091
     * CR *99.46   :00.00   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1969 * L  * 8.23264:12.37466:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 :12.09943* 2 :  9.10000: 8 :12.37466: 5 : 6.69306
     * CR *98.41   :99.90   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1970 * L  * 6.48512: 8.86810:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 9.49709* 2 :  4.45000: 9 : 9.49709: 2 : 4.45000
     * CR *97.72   :99.90   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1971 * L  * 6.15455: 7.93634:  .00000:  .00000:  .00000:  .00000:  .00000*    9I 8 : 7.93634* 2 :  7.16667: 7 : 7.98999: 3 : 4.78333
     * CR *98.58   :00.00   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1972 * L  * 8.29186:16.48374:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 :16.77877* 2 :   .68966: 6 :18.99261: 3 :  .46793
     * CR *99.48   :99.93   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1973 * L  * 7.15332: 9.75042:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 8.99348* 2 :  2.56506: 7 :10.15975: 2 : 2.56506
     * CR *98.76   :99.83   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
1974 * L  * 9.41396: 8.60906:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 :11.08025* 2 :  9.66216: 5 :11.39724: 3 : 6.88803
     * CR *98.73   :99.94   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00    *   :         :   :        :   :
*****************:*********:*********:*********:*********:*********:**************I***:************:***********:***:********:***:********
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```
                           E V O L U T I O N   D E   L A   C O N C E N T R A T I O N          ******************
                           *********************************************************          *  TABLEAU NO  3  *
                                                                                              *                 *
                            INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)                 *  1968  -  1974  *
                            *************************************************                 *                 *
                                                                                              ******************

    PAYS          :  DANEMARK
    INSTITUT      :  I.F.S. COPENHAGEN-AARHUS
    SECTEUR       :  DISTRIBUTION ALIMENTAIRE AU DETAIL
    ENTREPRISES

*****************************************************************************************************************************
                VARIABLE  :  05   CASH    FLOW
*****************************************************************************************************************************
      *     *                                                                 *    I           *        C O U R B E S     L
ANNEE* L    *      INDICES  L  ET  CR  RELATIFS A  N* =                       *    I           *******************************************
     * ET   *                                                                 *    I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:   MINIMUM
     * CR   ***************************************************************   *    I-------------*------------:------------:-----------
     *  %   *          :         :         :         :         :         :           * N  I   :  L       *N* : L       :N* :  L      :N* :  L
     *      *     4    :    8    :   10    :   12    :   20    :   30    :    40     *    I N*:   N*     * H<:  N*H<   :  H:   N*H   :  M:   N*M
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1968 * L   * 5.06197: 9.64099:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 :11.40324* 2 : 2.59524: 9 :11.40324: 2 : 2.59524
     * CR  *98.54   :99.93   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1969 * L   * 5.31806: 7.80032:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 7.92646* 2 : 4.32143: 9 : 7.92646: 2 : 4.32143
     * CR  *97.92   :99.86   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1970 * L   * 4.63166: 7.13091:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 9.76221* 2 : 2.78281: 9 : 9.76221: 2 : 2.78281
     * CR  *97.89   :99.94   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1971 * L   * 4.39174: 5.22282:  .00000:  .00000:  .00000:  .00000:  .00000*    9I 8 : 5.22282* 2 : 3.32447: 7 : 5.32576: 3 : 3.05264
     * CR  *97.77   :00.00   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1972 * L   * 4.70838: 6.21536:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 5.98475* 2 : 3.69955: 7 : 6.59370: 3 : 2.40175
     * CR  *98.18   :99.76   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1973 * L   * 4.02487: 7.17006:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 6.63113* 2 : 2.07609: 6 : 7.48676: 3 : 1.96505
     * CR  *98.52   :99.77   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
1974 * L   * 3.96858: 5.50557:  .00000:  .00000:  .00000:  .00000:  .00000*   10I 9 : 5.28455* 2 : 3.87352: 6 : 6.42527: 3 : 2.22627
     * CR  *98.13   :99.72   :  .00   :  .00   :  .00   :  .00   :  .00   *     I   :00.00   *   :         :   :         :   :
*********************:*********:*********:*********:*********:*********:*****************I***:*************:*********:***:*********:***:*********
```

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    IV/A-3                  E V O L U T I O N   D E   L A   C O N C E N T R A T I O N                ******************
                            *****************************************************                    *  TABLEAU NO  3 *
                                                                                                      *                *
                             INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)                        *  1968  -  1974 *
                             *************************************************                        *                *
                                                                                                      ******************

    PAYS        :  DANEMARK
    INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
    SECTEUR     :  DISTRIBUTION ALIMENTAIRE AU DETAIL
    ENTREPRISES

*************************************************************************************************************************************
                VARIABLE  :  06 INVESTIS   BRUTS
*************************************************************************************************************************************
     *    *                                                                           *    I              *       C O U R B E S     L
ANNEE* L  *     INDICES  L  ET  CR  RELATIFS A  N* =                                  *    I              ***************************
     * ET *                                                                           *    I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:   MINIMUM
     * CR ***************************************************************************     I--------------*-------------:-----------:----------
     *  % *         :         :         :         :         :         :               * N  I   :   L     *N* : L        :N* :   L     :N* : L
     *    *    4    :    8    :   10    :   12    :   20    :   30    :    40         *    I N*:   N*    * H<:   N*H<   :  H:   N*H   :  M:  N*M
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1968 * L  * 1.31825, 2.08688; 3.23518;  .00000;  .00000;  .00000:  .00000*  11I10 ; 3.23518* 2 ; 1.42500;10 ; 3.23518; 5 ; 1.09375
     * CR *92.09    ;99.60    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1969 * L  * 1.56389, 2.51741; 4.13009;  .00000;  .00000;  .00000:  .00000*  11I10 ; 4.13009* 2 ;  .73333;10 ; 4.13009; 2 ;  .73333
     * CR *93.40    ;99.70    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1970 * L  * 1.56389, 3.13707; 4.22136;  .00000;  .00000;  .00000:  .00000*  11I10 ; 4.22136* 2 ; 3.00000;10 ; 4.22136; 5 ; 1.47596
     * CR *94.23    ;99.66    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1971 * L  * 1.43477, 1.84762; 2.39792;  .00000;  .00000;  .00000:  .00000*  11I10 ; 2.39792* 2 ; 1.80000;10 ; 2.39792; 3 ; 1.14583
     * CR *92.76    ;99.34    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1972 * L  * 1.15938, 3.23183; 4.37924;  .00000;  .00000;  .00000:  .00000*  11I10 ; 4.37924* 2 ; 1.68333;10 ; 4.37924; 3 ; 1.10986
     * CR *96.36    ;99.59    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1973 * L  *  .92142, 3.50654; 5.05920;  .00000;  .00000;  .00000:  .00000*  11I10 ; 5.05920* 2 ; 1.75714;10 ; 5.05920; 4 ;  .92142
     * CR *95.68    ;99.67    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
1974 * L  * 2.24219, 5.74136; 6.88587;  .00000;  .00000;  .00000:  .00000*  11I10 ; 6.88587* 2 ; 1.83750;10 ; 6.88587; 3 ; 1.41493
     * CR *96.64    ;99.73    ;00.00    :  .00    :  .00    :  .00    :  .00    *     I    ;00.00    *    ;          ;   ;          ;   ;
*****************;********;********;********;********;********;*************I***;************;********;***;********;***;********
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IV/A-3

# EVOLUTION DE LA CONCENTRATION

## INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

TABLEAU NO 3

1968 - 1974

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

VARIABLE : 07 CAPITAUX PROPRES

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = | | | | | | | N | COURBES L | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | ECHANTILLON | | 1ER MAXIMUM | | 2EM MAXIMUM | | MINIMUM | |
| | | 4 | 8 | 10 | 12 | 20 | 30 | 40 | | N* | L N* | N* H< | L N*H< | N* H | L N*H | N* M | L N*M |
| 1968 | L | 4.39792 | 13.42901 | 19.11006 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 19.11006 | 2 | 5.70930 | 10 | 19.11006 | 3 | 4.18686 |
| | CR | 98.84 | 99.93 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1969 | L | 4.95649 | 11.28438 | 19.00017 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 19.00017 | 2 | 6.56977 | 10 | 19.00017 | 3 | 4.67819 |
| | CR | 98.65 | 99.94 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1970 | L | 3.67866 | 9.43952 | 14.75271 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 14.75271 | 2 | 5.68868 | 10 | 14.75271 | 3 | 3.52796 |
| | CR | 97.79 | 99.92 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1971 | L | 3.51527 | 7.39840 | 11.61637 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 11.61637 | 2 | 5.84906 | 10 | 11.61637 | 5 | 3.06828 |
| | CR | 97.17 | 99.89 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1972 | L | 2.15683 | 12.56362 | 18.84175 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 18.84175 | 2 | 4.98437 | 10 | 18.84175 | 4 | 2.15683 |
| | CR | 99.10 | 99.91 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1973 | L | 3.09381 | 14.56710 | 20.65675 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 20.65675 | 2 | 4.57051 | 10 | 20.65675 | 3 | 2.59722 |
| | CR | 99.27 | 99.91 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1974 | L | *13.98826 | 17.01375 | 18.87765 | .00000 | .00000 | .00000 | .00000 | 11 | 10 | 18.87765 | 2 | 4.35802 | 5 | 21.96720 | 3 | 2.56895 |
| | CR | 99.41 | 99.87 | 00.00 | .00 | .00 | .00 | .00 | | | 00.00 | | | | | | |

```
IV/A-3                         E V O L U T I O N   D E   L A   C O N C E N T R A T I O N        *******************
                               *********************************************************        *  TABLEAU NO  3  *
                                                                                                *                 *
                                INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)               *  1968  -  1974  *
                                *************************************************               *                 *
                                                                                                *******************

     PAYS         :  DANEMARK
     INSTITUT     :  I.F.S. COPENHAGEN-AARHUS
     SECTEUR      :  DISTRIBUTION ALIMENTAIRE AU DETAIL
     ENTREPRISES

*****************************************************************************************************************************************
                   VARIABLE  :   10  VALEUR AJOUTEE
*****************************************************************************************************************************************
     *     *                                                                  *     I            *          C O U R B E S     L
ANNEE* L   *      INDICES  L  ET  CR  RELATIFS A  N* =                        *     I            *****************************************
     * ET  *                                                                  *     I ECHANTILLON*1ER MAXIMUM : 2EM MAXIMUM:   MINIMUM
     * CR  ****************************************************************** *     I------------*------------:-----------:-----------
     *  %  *           :         :         :         :         :         :    * N   I    :   L     *N* : L       :N* :  L     :N* :  L
     *     *     4     :    8    :   10    :   12    :   20    :   30    :   40    *     I N*:   N*    * H<:  N*H<   :  H:  N*H   :  M:  N*M
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1968 * L  * 2.75179: 2.69382: 2.74373:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.74373* 4 : 2.75179: 9 : 2.82229: 6 : 2.21462
     * CR *94.27   :99.20   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1969 * L  * 2.86944: 2.24614: 2.32547:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.32547* 4 : 2.86944: 4 : 2.86944: 6 : 2.08096
     * CR *93.22   :99.05   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1970 * L  * 2.15838: 1.63867: 1.97224:  .00000:  .00000:  .00000:  .00000*  11I10 : 1.97224* 3 : 2.16327: 3 : 2.16327: 7 : 1.55474
     * CR *91.33   :99.06   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1971 * L  * 1.85318: 1.52052: 1.81514:  .00000:  .00000:  .00000:  .00000*  11I10 : 1.81514* 3 : 2.08414: 3 : 2.08414: 7 : 1.32963
     * CR *89.85   :99.00   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1972 * L  * 1.01388: 1.96555: 2.52537:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.52537* 2 : 1.80000:10 : 2.52537: 4 : 1.01388
     * CR *93.21   :99.29   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1973 * L  *  .95872: 1.98935: 2.62776:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.62776* 2 : 1.71687:10 : 2.62776: 4 :  .95872
     * CR *93.57   :99.27   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
1974 * L  * 1.01359: 1.95434: 2.44967:  .00000:  .00000:  .00000:  .00000*  11I10 : 2.44967* 2 : 1.74468:10 : 2.44967: 4 : 1.01359
     * CR *93.52   :99.19   :00.00   :  .00   :  .00   :  .00   :  .00   *    I   :00.00   *   :        :   :        :   :
*******************:*********:*********:*********:*********:*********:*************I***:***********:*********:***:********:***:********
```

## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

ANNEE : 1968

| N* | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | 02 EFFECTIF | 03 MASSE SALARIALE | 04 BENEFICE NET | 05 CASH FLOW | 06 INVESTIS BRUTS | 07 CAPITAUX PROPRES | 10 VALEUR AJOUTEE | | |
| 2 | 3.13784 | 2.73480 | 1.69333 | 3.59091 | 2.59524 | 1.42500 | 5.70930 | 2.24153 | | |
| | | | -------- | -------- | -------- | | | | | |
| 3 | 3.02761 | 2.03806 | 1.80117 | 5.77564 | 5.12500 | 1.27500 | 4.18686 | 2.34386 | | |
| | | | | | | | -------- | | | |
| 4 | 3.15133 | 2.25059 | 2.57323 | 6.46627 | 5.06197 | 1.31825 | 4.39792 | 2.75179 | | |
| 5 | 2.89231 | 1.93416 | 2.30175 | 11.59011 | 5.16572 | 1.09375 | 6.07046 | 2.49364 | | |
| | -------- | | | | | -------- | | | | |
| 6 | 3.01491 | 1.87413 | 2.04423 | 16.47790 | 7.78747 | 1.64201 | 6.94150 | 2.21462 | | |
| | | -------- | | | | | | -------- | | |
| 7 | 3.14902 | 2.34563 | 2.29982 | 16.73779 | 9.57891 | 1.71786 | 8.50653 | 2.55468 | | |
| | | | | ======== | | | | | | |
| 8 | 3.65136 | 2.73495 | 2.53639 | 15.69342 | 9.64099 | 2.08688 | 15.46901 | 2.69382 | | |
| 9 | 3.66902 | 2.99216 | 3.07173 | | 11.40324 | 2.93538 | 17.76267 | 2.82229 | | |
| | ======== | | | | ======== | | | ======== | | |
| 10 | 3.50975 | 3.03358 | 3.19348 | | | 3.23518 | 19.11006 | 2.74373 | | |
| | | ======== | ======== | | | ======== | ======== | | | |

# CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

ANNEE : 1969

| N° | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | 02 EFFECTIF | 03 MASSE SALARIALE | 04 BENEFICE NET | 05 CASH FLOW | 06 INVESTIS BRUTS | 07 CAPITAUX PROPRES | 10 VALEUR AJOUTEE | | |
| 2 | 3.14918 | 2.46179 | 1.66072<br>--------- | 9.10000 | 4.32143<br>--------- | .73333<br>--------- | 6.50977 | 2.30859 | | |
| 3 | 3.09431 | 1.90825<br>--------- | 1.75140 | 8.33333 | 5.05344 | 1.32500 | 4.67819<br>--------- | 2.40054 | | |
| 4 | 3.26471<br>======== | 2.10685 | 2.14686 | 8.23264 | 5.31806 | 1.50389 | 4.95049 | 2.86944<br>======== | | |
| 5 | 2.89685 | 2.07104 | 2.22649 | 6.69506<br>--------- | 5.28295 | 1.33766 | 6.02347 | 2.46359 | | |
| 6 | 2.74896 | 1.96187 | 1.96436 | 8.03094 | 5.03600 | 1.57332 | 7.34264 | 2.08096<br>--------- | | |
| 7 | 2.72922<br>--------- | 2.12910 | 2.31672 | 11.90184 | 6.56492 | 1.94631 | 7.13847 | 2.19002 | | |
| 8 | 3.13553 | 2.56866 | 2.29921 | 12.37466<br>======== | 7.60032 | 2.51741 | 11.20438 | 2.24614 | | |
| 9 | 3.14218 | 2.67622<br>======== | 2.97847 | 12.09943 | 7.92646<br>======== | 3.09506 | 10.90291 | 2.37993 | | |
| 10 | 3.00175 | 2.65511 | 3.19414<br>======== | | | 4.13009<br>======== | 19.00017<br>======== | 2.32547 | | |

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IV/A-3                            CONCENTRATION   INDUSTRIELLE                ********************
                                  ****************************                * TABLEAU NO 3BIS *
                                                                              ********************
                              TABLEAU STRUCTUREL DES COURBES LINDA
                              ************************************
PAYS          :  DANEMARK
INSTITUT      :  I.F.S. COPENHAGEN-AARHUS
SECTEUR       :  DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES                                                           ANNEE : 1970
**************************************************************************************************************************
*    *                                         V A R I A B L E                                                           *
* N* ********************************************************************************************************************
*    *    01     *    02     *    03     *    04     *    05     *    06     *    07     *    10     *           *           *
*    * CHIFFRE   * EFFECTIF  *  MASSE    * BENEFICE  *   CASH    * INVESTIS  * CAPITAUX  *  VALEUR   *           *           *
*    *D'AFFAIRES *           *SALARIALE  *   NET     *   FLOW    *  BRUTS    * PROPRES   *  AJOUTEE  *           *           *
**************************************************************************************************************************
*    *           *           *           *           *           *           *           *           *           *           *
*  2 *   2.92218 *   2.25950 *   1.55789 *   4.45000 *   2.78281 *   3.00000 *   5.68868 *   2.02244 *           *           *
*    *           *  ======== *           *           *           *           *           *           *           *           *
*    *           *           *           *  -------- *  -------- *           *           *           *           *           *
*  3 *   2.88477 *   1.84474 *   1.62811 *   5.03205 *   3.47435 *   1.92063 *   5.52796 *   2.16327 *           *           *
*    *           *           *           *           *           *           *  -------- *           *           *           *
*    *           *           *           *           *           *           *           *  ======== *           *           *
*  4 *   3.05346 *   1.89311 *   1.65292 *   6.48512 *   4.03106 *   1.56389 *   5.07866 *   2.15838 *           *           *
*    *  ======== *           *           *           *           *           *           *           *           *           *
*  5 *   2.73319 *   1.95534 *   1.54274 *   5.65917 *   4.07005 *   1.47596 *   5.59571 *   1.90466 *           *           *
*    *           *           *           *           *           *  -------- *           *           *           *           *
*  6 *   2.42637 *   1.78761 *   1.58043 *   4.71208 *   5.53916 *   1.60097 *   4.81605 *   1.68194 *           *           *
*  7 *   2.17419 *   1.59531 *   1.43904 *   5.49197 *   6.94752 *   2.57829 *   5.65095 *   1.55474 *           *           *
*    *  -------- *  -------- *  -------- *           *           *           *           *  -------- *           *           *
*  8 *   2.19952 *   1.70030 *   1.60666 *   8.86810 *   7.13091 *   3.13707 *   9.43952 *   1.63867 *           *           *
*  9 *   2.49850 *   2.01924 *   1.94312 *   9.49709 *   9.76221 *   3.98900 *  13.50289 *   1.84369 *           *           *
*    *           *           *           *  ======== *  ======== *           *           *           *           *           *
* 10 *   2.52994 *   2.16199 *   2.02197 *           *           *   4.22136 *  14.75271 *   1.97224 *           *           *
*    *           *           *  ======== *           *           *  ======== *  ======== *           *           *           *
**************************************************************************************************************************
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IV/A-3                                   CONCENTRATION   INDUSTRIELLE                                  *******************
                                        *************************                                       * TABLEAU NO 3BIS *
                                                                                                        *******************
                                      TABLEAU STRUCTUREL DES COURBES LINDA
                                      **********************************
PAYS         :  DANEMARK
INSTITUT     :  I.F.S. COPENHAGEN-AARHUS
SECTEUR      :  DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES                                                                ANNEE : 1971
   ************************************************************************************************************
   *    *                                        V A R I A B L E                                               *
   * N* *******************************************************************************************************
   *    *    01    *    02    *    03    *    04    *    05    *    06    *    07    *    10    *        *      *
   *    * CHIFFRE  * EFFECTIF *   MASSE  * BENEFICE *   CASH   * INVESTIS * CAPITAUX * VALEUR   *        *      *
   *    *D'AFFAIRES*          *SALARIALE *   NET    *   FLOW   *   BRUTS  *  PROPRES* AJOUTEE  *        *      *
   ************************************************************************************************************
   *    *          *          *          *          *          *          *          *          *        *      *
   *  2 *  2.73041 *  2.06875 *  1.46930 *  7.16667 *  3.52447 *  1.00000 *  5.64906 *  1.88649 *        *      *
   *    *          * ======== *          *          *          *          *          *          *        *      *
   *  3 *  2.79038 *  1.64378 *  1.55379 *  4.78333 *  3.05264 *  1.14583 *  5.12614 *  2.08414 *        *      *
   *    *          *          *          * -------- * -------- * -------- *          *          *        *      *
   *    *          *          *          *          *          *          *          * ======== *        *      *
   *  4 *  2.88186 *  1.67887 *  1.55858 *  6.15455 *  4.59174 *  1.45477 *  5.51527 *  1.85318 *        *      *
   *    * ======== *          *          *          *          *          *          *          *        *      *
   *  5 *  2.44522 *  1.73606 *  1.39290 *  7.50853 *  4.49029 *  1.56125 *  5.00828 *  1.51213 *        *      *
   *    *          *          *          *          *          *          * -------- *          *        *      *
   *  6 *  2.01834 *  1.59187 *  1.45581 *  6.73333 *  4.61705 *  1.65948 *  4.40035 *  1.38845 *        *      *
   *  7 *  1.79892 *  1.44136 *  1.57983 *  7.98999 *  5.52576 *  1.01661 *  4.02015 *  1.32963 *        *      *
   *    * -------- * -------- * -------- *          *          *          *          *          *        *      *
   *    *          *          *          * ======== * ======== *          *          * -------- *        *      *
   *  8 *  1.96243 *  1.63907 *  1.62999 *  7.93634 *  5.22262 *  1.64762 *  7.59840 *  1.52052 *        *      *
   *  9 *  2.22178 *  1.82140 *  2.05046 *          *          *  2.28590 * 10.52186 *  1.71098 *        *      *
   * 10 *  2.29165 *  1.92928 *  2.16831 *          *          *  2.59792 * 11.01637 *  1.81514 *        *      *
   *    *          *          * ======== *          *          * ======== * ======== *          *        *      *
   ************************************************************************************************************
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IV/A-3                                   CONCENTRATION   INDUSTRIELLE                     ********************
                                         ****************************                    .* TABLEAU NO 3BIS *
                                                                                          ********************
                                   TABLEAU STRUCTUREL DES COURBES LINDA
                                   ************************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES                                                               ANNEE : 1972
********************************************************************************************************************
*    *                                            V A R I A B L E                                                  *
*  N ***************************************************************************************************************
*    *    01    *    02    *    03    *    04    *    05    *    06    *    07    *    10    *          *          *
*    * CHIFFRE  * EFFECTIF *  MASSE   * BENEFICE *   CASH   * INVESTIS * CAPITAUX * VALEUR   *          *          *
*    *D'AFFAIRES*          *SALARIALE *   NET    *   FLOW   *  BRUTS   *  PROPRES * AJOUTEE  *          *          *
********************************************************************************************************************
*    *          *          *          *          *          *          *          *          *          *
*  2 *  2.78723 *  1.69541 *  1.53279 *   .08966 *  3.09955 *  1.66333 *  4.96437 *  1.80000 *
*  3 *  1.97114 *  1.41060 *  1.42161 *   .46795 *  2.40175 *  1.70986 *  2.86559 *  1.37412 *          *          *
*    *          *          *          * -------- * -------- * -------- *          *          *          *          *
*  4 *  1.65322 *  1.16032 *  1.20633 *  8.29186 *  4.70838 *  1.15938 *  2.15683 *  1.01388 *          *          *
*    * -------- * -------- * -------- *          *          *          * -------- * -------- *          *          *
*  5 *  1.83070 *  1.49687 *  1.50792 * 16.01128 *  5.54501 *  2.04426 *  5.23804 *  1.26517 *          *          *
*  6 *  1.74894 *  1.42896 *  1.62174 * 18.99261 *  6.27153 *  2.09061 *  7.00175 *  1.29095 *          *          *
*    *          *          *          * ======== *          *          *          *          *          *          *
*  7 *  2.16268 *  1.82020 *  1.93595 * 18.16572 *  6.59370 *  2.52268 * 10.00216 *  1.68035 *          *          *
*    *          *          *          *          * ======== *          *          *          *          *          *
*  8 *  2.38784 *  2.02658 *  2.29574 * 16.48374 *  6.21585 *  3.23183 * 12.50362 *  1.96555 *          *          *
*  9 *  2.52132 *  2.05861 *  2.32544 * 16.77877 *  5.98475 *  3.57144 * 13.80853 *  2.08763 *          *          *
* 10 *  3.00259 *  3.44944 *  3.09545 *          *          *  4.37924 * 18.84175 *  2.52537 *          *          *
*    * ======== * ======== * ======== *          *          * ======== * ======== * ======== *          *          *
********************************************************************************************************************
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IV/A-3                                  CONCENTRATION   INDUSTRIELLE                    *******************
                                        ***************************                     * TABLEAU NO 3BIS *
                                                                                        *******************
                                     TABLEAU STRUCTUREL DES COURBES LINDA
                                     ***********************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES                                                          ANNEE : 1973
  ******************************************************************************************************
  *    *                                    V A R I A B L E                                             *
  * N* ************************************************************************************************
  *    *    01    *    02    *    03    *    04    *    05    *    06    *    07    *    10    *    *    *
  *    * CHIFFRE  * EFFECTIF *   MASSE  * BENEFICE *   CASH   * INVESTIS * CAPITAUX *  VALEUR  *    *    *
  *    *D'AFFAIRES*          *SALARIALE *    NET   *   FLOW   *   BRUTS  *  PROPRES*  AJOUTEE  *    *    *
  ******************************************************************************************************
  *    *          *          *          *          *          *          *          *          *    *    *
  *  2 *  2.67918 *  1.33720 *  1.57037 *  2.56506 *  2.07609 *  1.75714 *  4.57051 *  1.71687 *    *    *
  *    *          *          *          * -------- *          *          *          *          *    *    *
  *  3 *  1.66981 *  1.15080 *  1.21940 *  2.82892 *  1.96505 *  1.17854 *  2.59722 *  1.17985 *    *    *
  *    *          *          *          *          * -------- *          * -------- *          *    *    *
  *  4 *  1.54816 *   .97711 *  1.06340 *  7.15332 *  4.02487 *   .92142 *  3.09381 *   .95872 *    *    *
  *    * -------- * -------- * -------- *          *          * -------- *          * -------- *    *    *
  *  5 *  1.79595 *  1.15589 *  1.34506 *  7.55413 *  5.82135 *  1.27373 *  6.40782 *  1.26254 *    *    *
  *  6 *  1.70275 *  1.14607 *  1.44782 *  9.27342 *  7.48676 *  1.64124 * 12.05984 *  1.31607 *    *    *
  *    *          *          *          *          * ======== *          *          *          *    *    *
  *  7 *  2.28489 *  1.60760 *  1.78559 * 10.15975 *  7.37000 *  2.53636 * 13.07813 *  1.82042 *    *    *
  *    *          *          *          * ======== *          *          *          *          *    *    *
  *  8 *  2.41806 *  1.82044 *  2.07370 *  9.75042 *  7.17006 *  3.50654 * 14.50710 *  1.98935 *    *    *
  *  9 *  2.38204 *  1.86986 *  2.08328 *  8.99348 *  6.63113 *  3.75357 * 15.11900 *  2.03555 *    *    *
  * 10 *  2.92736 *  2.99475 *  2.43548 *          *          *  5.05920 * 20.65675 *  2.62776 *    *    *
  *    * ======== * ======== * ======== *          *          * ======== * ======== * ======== *    *    *
  ******************************************************************************************************
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IV/A-3                                     CONCENTRATION   INDUSTRIELLE                                   *******************
                                          ****************************                                     * TABLEAU NO 3BIS *
                                                                                                          *******************
                                        TABLEAU STRUCTUREL DES COURBES LINDA
                                        ************************************
PAYS         :  DANEMARK
INSTITUT     :  I.F.S. COPENHAGEN-AARHUS
SECTEUR      :  DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES                                                                     ANNEE : 1974
  *************************************************************************************************************************
  *    *                                                  V A R I A B L E                                                 *
  * N* ********************************************************************************************************************
  *    *    01     *    02     *    03     *    04     *    05     *    06     *    07     *    10     *          *        *
  *    * CHIFFRE   * EFFECTIF  *   MASSE   * BENEFICE  *   CASH    * INVESTIS  * CAPITAUX  * VALEUR    *          *        *
  *    *D'AFFAIRES*            *SALARIALE  *   NET     *   FLOW    *   BRUTS   *  PROPRES* AJOUTEE   *          *        *
  *************************************************************************************************************************
  *    *           *           *           *           *           *           *           *           *          *        *
  *  2 *  2.66358  *  1.22244  *  1.57622  *  9.66216  *  3.87352  *  1.63750  *  4.35802  *  1.74468  *          *        *
  *  3 *  1.56360  *  1.11746  *  1.20424  *  6.68803  *  2.22627  *  1.41493  *  2.50695  *  1.12602  *          *        *
  *    * --------- *           *           * --------- * --------- * --------- * --------- *           *          *        *
  *  4 *  1.58907  *   .91462  *  1.10928  *  9.41396  *  3.96858  *  2.24219  * 13.98826  *  1.01359  *          *        *
  *    *           * --------- * --------- *           *           *           *           * --------- *          *        *
  *  5 *  1.82196  *  1.14183  *  1.43260  * 11.39724  *  5.64744  *  2.05313  * 21.90720  *  1.32143  *          *        *
  *    *           *           *           * ========= *           *           * ========= *           *          *        *
  *  6 *  1.75371  *  1.12318  *  1.48906  * 10.55439  *  6.42547  *  3.39558  * 21.47642  *  1.35890  *          *        *
  *    *           *           *           *           * ========= *           *           *           *          *        *
  *  7 *  2.22966  *  1.56895  *  1.95646  *  9.27951  *  6.08442  *  4.93265  * 19.31300  *  1.82161  *          *        *
  *  8 *  2.34110  *  1.69720  *  2.15553  *  8.60906  *  5.50557  *  5.74136  * 17.01375  *  1.95434  *          *        *
  *  9 *  2.26196  *  1.74583  *  2.12369  * 11.08025  *  5.28455  *  5.77935  * 16.00364  *  1.96705  *          *        *
  * 10 *  2.85936  *  2.86602  *  2.61502  *           *           *  6.88587  * 18.87765  *  2.44967  *          *        *
  *    * ========= * ========= * ========= *           *           * ========= *           * ========= *          *        *
  *************************************************************************************************************************
```

IV/A-3

## CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

## TABLEAU RECAPITULATIF DES INDICES L

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

| VARIABLES | ANNEE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1968 INDICES | | | 1969 INDICES | | | 1970 INDICES | | | 1971 INDICES | | | 1972 INDICES | | |
| | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS |
| 01 CHIFFRE D'AFFAIRES | 5 | 2.89231 | 3.05227 | 7 | 2.72922 | 2.98054 | 7 | 2.17419 | 2.69902 | 7 | 1.79892 | 2.44419 | 4 | 1.65322 | 2.13720 |
| 02 EFFECTIF | 6 | 1.87413 | 2.16635 | 3 | 1.90825 | 2.18502 | 7 | 1.59531 | 1.88927 | 7 | 1.44136 | 1.69345 | 4 | 1.16032 | 1.42211 |
| 03 MASSE SALARIALE | 2 | 1.69333 | 1.69333 | 2 | 1.68072 | 1.68072 | 7 | 1.43904 | 1.56686 | 7 | 1.37983 | 1.46170 | 4 | 1.20633 | 1.38691 |
| 04 BENEFICE NET | 2 | 3.59091 | 3.59091 | 5 | 6.69306 | 8.08976 | 2 | 4.45000 | 4.45000 | 3 | 4.78333 | 5.97500 | 3 | .46793 | .57879 |
| 05 CASH FLOW | 2 | 2.59524 | 2.59524 | 2 | 4.32143 | 4.32143 | 2 | 2.78281 | 2.78281 | 3 | 3.05264 | 3.18856 | 3 | 2.40175 | 3.05065 |
| 06 INVESTIS BRUTS | 5 | 1.09375 | 1.27800 | 2 | .73333 | .73333 | 5 | 1.47596 | 1.99012 | 3 | 1.14583 | 1.47292 | 3 | 1.10986 | 1.39660 |
| 07 CAPITAUX PROPRES | 3 | 4.18686 | 4.94808 | 3 | 4.67819 | 5.62398 | 3 | 3.52796 | 4.00832 | 5 | 3.06828 | 3.89019 | 4 | 2.15683 | 3.34227 |
| 10 VALEUR AJOUTEE | 6 | 2.21462 | 2.40309 | 6 | 2.08096 | 2.42462 | 7 | 1.55474 | 1.91424 | 7 | 1.32963 | 1.67567 | 4 | 1.01388 | 1.39600 |

## CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

### TABLEAU RECAPITULATIF DES INDICES L

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE AU DETAIL
ENTREPRISES

| VARIABLES | A N N E E | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973 INDICES | | | 1974 INDICES | | | 0 INDICES | | | INDICES | | | INDICES | | |
| | N* M | LN*M | LS | N* M | LN*M | LS | N* M | LN*M | LS | N* M | LN*M | LS | N* M | LN*M | LS |
| 01 CHIFFRE D'AFFAIRES | 4 | 1.54816 | 1.96572 | 3 | 1.56360 | 2.11959 | | | | | | | | | |
| 02 EFFECTIF | 4 | .97711 | 1.15503 | 4 | .91462 | 1.08484 | | | | | | | | | |
| 03 MASSE SALARIALE | 4 | 1.06340 | 1.28439 | 4 | 1.10928 | 1.29658 | | | | | | | | | |
| 04 BENEFICE NET | 2 | 2.56506 | 2.56506 | 3 | 6.88803 | 8.27510 | | | | | | | | | |
| 05 CASH FLOW | 3 | 1.96505 | 2.02057 | 3 | 2.22627 | 3.04989 | | | | | | | | | |
| 06 INVESTIS BRUTS | 4 | .92142 | 1.28570 | 3 | 1.41493 | 1.62622 | | | | | | | | | |
| 07 CAPITAUX PROPRES | 3 | 2.59722 | 3.58386 | 3 | 2.56895 | 3.46549 | | | | | | | | | |
| 10 VALEUR AJOUTEE | 4 | .95872 | 1.28515 | 4 | 1.01359 | 1.29476 | | | | | | | | | |

IV/A-3

## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 1**

**1968 - 1974**

### EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 Dkr)

| ANNEE | TOTAL | | | ECHANTILLON | | | E/T % |
|---|---|---|---|---|---|---|---|
| | N | VALEUR (T) | 1968=100 | N* | VALEUR (E) | 1968=100 | |
| 1968 | 15 | 6325,100 | 100 | 14 | 6325,000 | 100 | 100,00 |
| 1969 | 15 | 7045,100 | 111 | 14 | 7045,000 | 111 | 100,00 |
| 1970 | 15 | 8934,100 | 141 | 14 | 8934,000 | 141 | 100,00 |
| 1971 | 15 | 10553,100 | 166 | 14 | 10553,000 | 166 | 100,00 |
| 1972 | 15 | 12466,100 | 197 | 14 | 12466,000 | 197 | 100,00 |
| 1973 | 15 | 14817,100 | 234 | 14 | 14817,000 | 234 | 100,00 |
| 1974 | 15 | 17410,100 | 275 | 14 | 17410,000 | 275 | 100,00 |

IV/A-3

## EVOLUTION DE LA CONCENTRATION

**TABLEAU NO 2**

### TOTAL DU SECTEUR

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 **VALEUR AJOUTEE**

| VARIABLE | ANNEE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1968 | | | | | | 1969 | | | | | |
| | N | M | V | G | H | E | N | M | V | G | H | E |
| 0 1 | 15 | 421.673 | 2.00191 | .71706 | 333.64407 | -71.03240 | 15 | 469.673 | 1.97892 | .70866 | 327.74099 | -72.12757 |
| | 1970 | | | | | | 1971 | | | | | |
| 0 1 | 15 | 595.607 | 1.69475 | .63017 | 258.14527 | -82.05543 | 15 | 703.540 | 1.00024 | .61263 | 237.38422 | -84.60852 |

IV/A-3

# EVOLUTION DE LA CONCENTRATION

**TABLEAU NO 2**

## TOTAL DU SECTEUR

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 VALEUR AJOUTEE

| VARIABLE | ANNEE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1972 | | | | | | 1973 | | | | | |
| | N | M | V | G | H | E | N | M | V | G | H | E |
| 0 1 | 15 | 831.073 | 1.49022 | .58841 | 214.71783 | -87.15241 | 15 | 987.807 | 1.43545 | .57851 | 204.03368 | -88.25253 |
| | 1974 | | | | | | | | | | | |
| 0 1 | 15 | 1160.673 | 1.41939 | .59134 | 200.97862 | -87.62298 | | | | | | |

# EVOLUTION DE LA CONCENTRATION

## INDICES LINDA (L) ET RATIOS DE CONCENTRATION (CR)

**TABLEAU NO 3**

**1968 - 1974**

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

VARIABLE : 01 CHIFFRE D'AFFAIRES

| ANNEE | L ET CR % | INDICES L ET CR RELATIFS A N* = | | | | | | | N | COURBES L | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | ECHANTILLON | | 1ER MAXIMUM | | 2EM MAXIMUM | | MINIMUM | |
| | | 4 | 8 | 10 | 12 | 20 | 30 | 40 | | N* | L N* | N* H< | L N*H< | N* H | L N*H | N* M | L N*M |
| 1968 | L | 1.21550 | .83206 | .81970 | .99955 | .00000 | .00000 | .00000 | 15 | 14 | 1.32474 | 2 | 2.38562 | 2 | 2.38562 | 10 | .81970 |
| | CR | 81.71 | 95.38 | 98.34 | 99.52 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1969 | L | 1.19369 | .80151 | .80467 | .89116 | .00000 | .00000 | .00000 | 15 | 14 | 1.15800 | 2 | 2.43165 | 2 | 2.43165 | 8 | .80151 |
| | CR | 80.94 | 94.99 | 97.88 | 99.43 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1970 | L | 1.07695 | .54317 | .57301 | .60243 | .00000 | .00000 | .00000 | 15 | 14 | .67179 | 2 | 2.49588 | 2 | 2.49588 | 9 | .54025 |
| | CR | 71.85 | 92.50 | 96.32 | 98.59 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1971 | L | .95643 | .51240 | .54780 | .53346 | .00000 | .00000 | .00000 | 15 | 14 | .62325 | 2 | 2.25714 | 2 | 2.25714 | 7 | .51171 |
| | CR | 70.67 | 91.85 | 95.64 | 98.45 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1972 | L | .91174 | .41471 | .42406 | .48364 | .00000 | .00000 | .00000 | 15 | 14 | .73605 | 2 | 2.27826 | 2 | 2.27826 | 9 | .40739 |
| | CR | 66.90 | 91.49 | 96.78 | 99.26 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1973 | L | .83666 | .37792 | .40275 | .47150 | .00000 | .00000 | .00000 | 15 | 14 | .74552 | 2 | 2.30615 | 2 | 2.30615 | 8 | .37792 |
| | CR | 66.11 | 91.77 | 96.94 | 99.34 | .00 | .00 | .00 | | | 00.00 | | | | | | |
| 1974 | L | .78289 | .37530 | .41101 | .67380 | .00000 | .00000 | .00000 | 15 | 14 | .85422 | 2 | 1.95803 | 2 | 1.95803 | 8 | .37530 |
| | CR | 67.37 | 93.08 | 97.87 | 99.31 | .00 | .00 | .00 | | | 00.00 | | | | | | |

## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

### TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

ANNEE : 1968

| N° | VARIABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | | | | | | | | |
| 2 | 2.38562 | | | | | | | | |
| | ======== | | | | | | | | |
| 3 | 1.53608 | | | | | | | | |
| 4 | 1.21550 | | | | | | | | |
| 5 | 1.03119 | | | | | | | | |
| 6 | .95062 | | | | | | | | |
| 7 | .85250 | | | | | | | | |
| 8 | .83206 | | | | | | | | |
| 9 | .82075 | | | | | | | | |
| 10 | .81970 | | | | | | | | |
| | -------- | | | | | | | | |
| 11 | .89746 | | | | | | | | |
| 12 | .99955 | | | | | | | | |
| 13 | 1.22104 | | | | | | | | |
| 14 | 1.32474 | | | | | | | | |

# CONCENTRATION INDUSTRIELLE

*** TABLEAU NO 38IS ***

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

ANNEE : 1969

| N° | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | | | | | | | | | |
| 2 | 2.43165 | | | | | | | | | |
| | ======== | | | | | | | | | |
| 3 | 1.54755 | | | | | | | | | |
| 4 | 1.19369 | | | | | | | | | |
| 5 | .97820 | | | | | | | | | |
| 6 | .93159 | | | | | | | | | |
| 7 | .86540 | | | | | | | | | |
| 8 | .80151 | | | | | | | | | |
| | -------- | | | | | | | | | |
| 9 | .81198 | | | | | | | | | |
| 10 | .80467 | | | | | | | | | |
| 11 | .83304 | | | | | | | | | |
| 12 | .89116 | | | | | | | | | |
| 13 | 1.07352 | | | | | | | | | |
| 14 | 1.15800 | | | | | | | | | |

IV/A-3

## CONCENTRATION INDUSTRIELLE

*** TABLEAU NO 3BIS ***

### TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

ANNEE : 1970

| N° | VARIABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 01<br>CHIFFRE<br>D'AFFAIRES | | | | | | | | |
| 2 | 2.49588 | | | | | | | | |
| | ======== | | | | | | | | |
| 3 | 1.48202 | | | | | | | | |
| 4 | 1.07695 | | | | | | | | |
| 5 | .81402 | | | | | | | | |
| 6 | .65376 | | | | | | | | |
| 7 | .55765 | | | | | | | | |
| 8 | .54317 | | | | | | | | |
| 9 | .54025 | | | | | | | | |
| | -------- | | | | | | | | |
| 10 | .57301 | | | | | | | | |
| 11 | .59051 | | | | | | | | |
| 12 | .60243 | | | | | | | | |
| 13 | .61062 | | | | | | | | |
| 14 | .67179 | | | | | | | | |

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IV/A-3                                   CONCENTRATION   INDUSTRIELLE                    *******************
                                         ****************************                    * TABLEAU NO 3BIS *
                                                                                         *******************
                                       TABLEAU STRUCTUREL DES COURBES LINDA
                                       ************************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.                                                                  ANNEE : 1971
    **********************************************************************************************************
    *    *                                          V A R I A B L E                                          *
    * N° ****************************************************************************************************
    *    *   01    *         *         *         *         *         *         *         *         *         *
    *    * CHIFFRE *         *         *         *         *         *         *         *         *         *
    *    *D'AFFAIRES*        *         *         *         *         *         *         *         *         *
    **********************************************************************************************************
    *    *         *         *         *         *         *         *         *         *         *         *
    *  2 * 2.25714 *         *         *         *         *         *         *         *         *         *
    *    *======== *         *         *         *         *         *         *         *         *         *
    *  3 * 1.37965 *         *         *         *         *         *         *         *         *         *
    *  4 *  .95643 *         *         *         *         *         *         *         *         *         *
    *  5 *  .74187 *         *         *         *         *         *         *         *         *         *
    *  6 *  .61318 *         *         *         *         *         *         *         *         *         *
    *  7 *  .51171 *         *         *         *         *         *         *         *         *         *
    *    *-------- *         *         *         *         *         *         *         *         *         *
    *  8 *  .51240 *         *         *         *         *         *         *         *         *         *
    *  9 *  .51826 *         *         *         *         *         *         *         *         *         *
    * 10 *  .54780 *         *         *         *         *         *         *         *         *         *
    * 11 *  .54897 *         *         *         *         *         *         *         *         *         *
    * 12 *  .53346 *         *         *         *         *         *         *         *         *         *
    * 13 *  .53609 *         *         *         *         *         *         *         *         *         *
    * 14 *  .62325 *         *         *         *         *         *         *         *         *         *
    **********************************************************************************************************
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IV/A-3                                  CONCENTRATION   INDUSTRIELLE                                   *******************
                                        ****************************                                   * TABLEAU NO 3BIS *
                                                                                                       *******************
                                     TABLEAU STRUCTUREL DES COURBES LINDA
                                     ***********************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.                                                            ANNEE : 1972
   ****************************************************************************************************************
   *    *                                              V A R I A B L E                                            *
   * N* *******************************************************************************************************
   *    *    01     *          *          *          *          *          *          *          *          *
   *    * CHIFFRE   *          *          *          *          *          *          *          *          *
   *    *D'AFFAIRES*          *          *          *          *          *          *          *          *
   ****************************************************************************************************************
   *    *           *          *          *          *          *          *          *          *          *
   *  2 *  2,27826  *          *          *          *          *          *          *          *          *
   *    * ========  *          *          *          *          *          *          *          *          *
   *  3 *  1,34490  *          *          *          *          *          *          *          *          *
   *  4 *   .91174  *          *          *          *          *          *          *          *          *
   *  5 *   .66648  *          *          *          *          *          *          *          *          *
   *  6 *   .54715  *          *          *          *          *          *          *          *          *
   *  7 *   .46412  *          *          *          *          *          *          *          *          *
   *  8 *   .41471  *          *          *          *          *          *          *          *          *
   *  9 *   .40739  *          *          *          *          *          *          *          *          *
   *    * --------  *          *          *          *          *          *          *          *          *
   * 10 *   .42406  *          *          *          *          *          *          *          *          *
   * 11 *   .46179  *          *          *          *          *          *          *          *          *
   * 12 *   .48364  *          *          *          *          *          *          *          *          *
   * 13 *   .61620  *          *          *          *          *          *          *          *          *
   * 14 *   .73605  *          *          *          *          *          *          *          *          *
   ****************************************************************************************************************
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IV/A-3                                  CONCENTRATION   INDUSTRIELLE                              *******************
                                        ****************************                              * TABLEAU NO 3BIS *
                                                                                                  *******************
                                     TABLEAU STRUCTUREL DES COURBES LINDA
                                     ************************************
PAYS        :  DANEMARK
INSTITUT    :  I.F.S. COPENHAGEN-AARHUS
SECTEUR     :  DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.                                                                           ANNEE : 1973
   ********************************************************************************************************************
   *    *                                          V A R I A B L E                                                    *
   * N* ***************************************************************************************************************
   *    *    01    *          *          *          *          *          *          *          *          *          *
   *    * CHIFFRE  *          *          *          *          *          *          *          *          *          *
   *    *D'AFFAIRES*          *          *          *          *          *          *          *          *          *
   ********************************************************************************************************************
   *    *          *          *          *          *          *          *          *          *          *          *
   *  2 *  2.30615 *          *          *          *          *          *          *          *          *          *
   *    * ======== *          *          *          *          *          *          *          *          *          *
   *  3 *  1.23641 *          *          *          *          *          *          *          *          *          *
   *  4 *   .83666 *          *          *          *          *          *          *          *          *          *
   *  5 *   .62798 *          *          *          *          *          *          *          *          *          *
   *  6 *   .52697 *          *          *          *          *          *          *          *          *          *
   *  7 *   .44460 *          *          *          *          *          *          *          *          *          *
   *  8 *   .37792 *          *          *          *          *          *          *          *          *          *
   *    * -------- *          *          *          *          *          *          *          *          *          *
   *  9 *   .38491 *          *          *          *          *          *          *          *          *          *
   * 10 *   .40275 *          *          *          *          *          *          *          *          *          *
   * 11 *   .45051 *          *          *          *          *          *          *          *          *          *
   * 12 *   .47150 *          *          *          *          *          *          *          *          *          *
   * 13 *   .64298 *          *          *          *          *          *          *          *          *          *
   * 14 *   .74552 *          *          *          *          *          *          *          *          *          *
   ********************************************************************************************************************
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## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 3BIS**

## TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

ANNEE : 1974

| N | VARIABLE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 01 CHIFFRE D'AFFAIRES | | | | | | | | | |
| 2 | 1.95803 | | | | | | | | | |
| | ======== | | | | | | | | | |
| 3 | 1.15401 | | | | | | | | | |
| 4 | .78289 | | | | | | | | | |
| 5 | .60977 | | | | | | | | | |
| 6 | .51004 | | | | | | | | | |
| 7 | .43450 | | | | | | | | | |
| 8 | .37530 | | | | | | | | | |
| | -------- | | | | | | | | | |
| 9 | .39676 | | | | | | | | | |
| 10 | .41101 | | | | | | | | | |
| 11 | .47718 | | | | | | | | | |
| 12 | .67380 | | | | | | | | | |
| 13 | .79582 | | | | | | | | | |
| 14 | .85422 | | | | | | | | | |

IV/A-3

## CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

### TABLEAU RECAPITULATIF DES INDICES L

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

| VARIABLES | ANNEE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1968 INDICES | | | 1969 INDICES | | | 1970 INDICES | | | 1971 INDICES | | | 1972 INDICES | | |
| | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS |
| 01 CHIFFRE D'AFFAIRES | 10 | .81970 | 1.16045 | 8 | .80151 | 1.24994 | 9 | .54025 | 1.02046 | 7 | .51171 | 1.07666 | 9 | .40739 | .87934 |

IV/A-3

## CONCENTRATION INDUSTRIELLE

**TABLEAU NO 4**

### TABLEAU RECAPITULATIF DES INDICES L

PAYS : DANEMARK
INSTITUT : I.F.S. COPENHAGEN-AARHUS
SECTEUR : DISTRIBUTION ALIMENTAIRE (GROUPES)
U.A.E.

| VARIABLES | ANNEE | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973<br>INDICES | | | 1974<br>INDICES | | | INDICES | | | INDICES | | | INDICES | | |
| | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS | N M | LN*M | LS |
| 01 CHIFFRE D'AFFAIRES | 8 | .37792 | .90810 | 8 | .37530 | .83408 | | | | | | | | | |

Instituttet for Fremtidsforskning — Institute for Futures Studies

## PART TWO

# THE FIRST AND THE SECOND PRICE SURVEY IN DENMARK

A report prepared for the
Directorate General for Competition
of the
COMMISSION OF THE EUROPEAN COMMUNITIES
by the
INSTITUTE FOR FUTURES STUDIES

November 1976

POSTAL ADDRESS.
Vester Farimagsgade 3
DK-1606 København V
Denmark

TELEPHONE:
01/11 71 76

POSTAL ACCOUNT
8 18 76 73

BANK ACCOUNT.
DEN DANSKE BANK af 1871
Afdeling: Frihedsstøtten
11271-2

This report commissioned by the Directorate General for Competition of the Commission of the European Communities has been carried out by the Institute for Future Studies, under the direction of Professor Thorkil Kristensen and Professor Th. Herborg Nielsen. The work has been carried out by Associate Professor Niels Jørgensen and Associate Professor Jens Vestergård.

## I. == Programme of Research on Concentration ==

## Methodology of the research as applied to food distribution

by Dr. Remo LINDA

### 1. Studies of several manufacturing industries: progress so far

When, in 1969 and 1970, the Commission launched a programme of quantified studies of specific industries, inflation was, in fact, exerting little real impact. The object of the studies was therefore, particularly in view of the financial and budgetary constraints, restricted in two ways.

Firstly, the industries to be studied were all in the manufacturing sector (they included pharmaceuticals, cotton, paper, household electrical appliances, office machines, textile machinery, agricultural machinery, food, etc.).

Secondly, there was no choice but to forgo recording and analysing prices, even though these have a definite role to play in the actual functioning of competition. Furthermore, the aim of the methodology was to set a uniform basis for describing and comparing the relevant industries in the various Community countries with the ultimate object of overcoming a serious difficulty relating to the available statistics and sources.

The mustering and analysis of the large number of data relating to firms' operations has provided a much fuller picture of the structures under study and of the way they have developed since 1962. For the first time, uniform comparable criteria have been used at European level for the measurement and analysis, in major firms in each of the industries considered, of variable factors (turnover, persons employed, wages and salaries, net profits, cash flow and own capital) over a lengthy period which, in several industries and several countries, ran to as much as ten years.

It should be noted here that the Commission has already published fifty or so volumes containing the individual reports prepared by the institutes and experts commissioned to do the research together with a series of concentration tables (setting out the comparative econometric analyses and syntheses).

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

- objectives,
- object,
- methodology.

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

(a) that they are realistic in that in most of the industries which have been the subject of research it has been possible to attain them to a satisfactory degree;

(b) that they are useful, for by pursuing them it has been possible to make a substantial increase in the stock of facts and landmarks available for the guidance of the Commission, the European Parliament and public opinion in its entirety.

None the less, this stocktaking must also entail an updating of methods (a sort of "aggiornamento") because the economic situation has changed sharply over the last six years and because experience since acquired on methods and tools of analysis should now be turned to good account.

Hence the need for a new series of studies; let us begin by outlining their principal features.

## 2. The new series of studies: their objectives

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

a) more far-reaching analysis of the relationship between size and profitability, the aim being to discern and demonstrate disparities of corporate performance and their causes;

b) development of the analysis of the individual product markets;

c) the beginnings of a comparative analysis of price trends on certain of these product markets in the various member countries as a function both of the size and of the location of distribution units.

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

I) the development and distribution of net profit margins from every conceiveable angle, highlighting comparative developments in line with:

  a) production units and distribution units;

  b) large distribution units and small independent units;

II) the development of gross profit margins, or mark-ups, obtained in each reference period by the various forms and types of distribution, a distinction being made for:

  a) type of product, account also being taken of the rate of stock turn;

  b) the size of the distribution unit (large and medium firms and very small independent units);

  c) location.

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

The existence of inflationary strain in the various Community countries, however regrettable in social and economic terms, provides a valuable and unique opportunity for competition economists to work from concrete and specific realities in order to analyse the operation of market mechanisms with special reference to the impact of market dominance and of formal or informal restrictive agreements on trends in retail prices and gross and net profit margins, by analysing the effects on price formation and dynamics of the roles of the manufacturing sector and of distribution in its various forms respectively.

At times of price stability it is not easy to explain why prices are at a given level or why if at all they are uniform (does the uniformity result from the spontaneous play of competitive forces or from concerted action?), whereas when prices are constantly changing it is an extremely worthwhile exercise to detect flashpoints, parallelisms, the speed and scope of price alignments or of any movements towards divergence, and in more general terms a series of symptoms for diagnosing how circuits are operating and hence:

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

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

## 3. The impact of international trade on domestic prices

But in addition, our field of vision has to be extended to another range of problems which are of fundamental importance to the Community.

It will be realized that the studies on concentration in the various branches of manufacturing industry must set out basic factors of international trade covering both trade between Community countries and trade with non-member countries, and indeed virtually all the reports put out by the Commission have done this.

If the studies are now extended to distribution, it may well be possible to establish a number of significant interrelations between the structure of international trade and comparative developments in retail prices in line with the place of manufacture and/or the origin of the goods.

For instance, do the final consumer prices of imported goods rise more or less quickly than the prices for domestic products? Does an increase in the price of domestic products actually spark off the importation of competing products, and if so to what extent, on what conditions and after what time-lag? Do the retail prices of imported goods align on the retail prices of similar domestic goods, or do domestic prices tend to fall under the pressure of imports? Do relations and reactions as between prices (and their variations) for imported and for domestic goods arise in the same way at the same time or are there perhaps differences from country to country and region to region, and even between sales points for the relevant sample?

These are only examples of the points to be considered.

## 4. Subject matter: food distribution

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

a) the relevant group or sample of goods;

b) the relevant stage of the distribution channel;

c) the relevant territory.

As regards a), at first sight it is reasonable to regard as the most important goods for family budgets and thus for the inflationary process not only food, but also textiles and clothing, household electrical appliances and pharmaceutical products. Indeed, it is no coincidence that all these industries are covered by the Commission's programme of research on the development of concentration in manufacturing. But if the study of distribution and its channels is to be got under way without further delay, the subject matter must be confined to the most important and most "strategic" area (for family budgets): food.

The same research teams who have already presented excellent reports on the food industry[1] will also be dealing with the question of food distribution. To begin with, the analysis will deal above all with

---

[1] The following teams did the research in the four largest Community countries:

France: Institut Agronomique de Montpellier (IAM), the team being made up of J.L. Rastoin (in charge), G. Ghersi, M. Castagnos, D. Boulet and J.P. Laporte,
United Kingdom: Development Analysts Ltd. (Professors R.W. Evely, P.E. Hart, J.S. Prais, Mrs. J.A.Carter, Miss B.A. Playll),
Germany: IFO-Institut für Wirtschaftsforschung, Munich,
Italy: SORIS, Turin, the team being made up of B. Balliano, G. Bertone, F. Guaschino and R. Lanzetti.

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

finished food products, although there are plans for putting in hand, at a later stage, an analysis of agricultural products, unprocessed or after primary processing.

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

## 5. Methodology: the sample of major firms (n*)

As regards (b) the stage of the distribution channel and (c) the territory to be regarded as relevant, fundamental methodological problems arise.

If the research is to be successful, the subject matter must be defined clearly. Hence the following questions must be answered:

- as regards (b): are we to deal with wholesale trade, the retail trade, or both?

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

A very general preliminary answer to all these questions lies in the sample method already applied to all the research carried out on concentration in manufacturing industries.

A specific multi-dimensional analysis (based on a whole series of variables) has always been applied not to "the universe", meaning the whole industry with firms running into thousands, but to a reduced sample (n*) of major firms (in 1971 n* for the food industry was 60 in the United Kingdom, 50 in France and 58 in Italy).

The sample method not only sharply reduces research costs but also makes it possible to bring out the structure and behaviour, the performance, of the large units i.e. those of the greatest significance both for concentration and for competition. This method allows generalized application of the typical econometric instruments of oligopolistic analysis to virtually all the structures to be studied.

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

I) to set up a sample (n*) of major distribution firms (food retailers):

- working in the retail business and possibly in wholesale trade as well;
- considered at national level;

II) to set up a very small sample (g*) of major national food distributors working at the wholesale stage and completely absent from retail trade;

III) to analyse the two samples n* and g* separately, compiling all the significant variables (turnover, persons employed, wages and salaries, net profit, cash flow, own means* and, where possible, value added) for each unit studied.

---

* i.e.: equity or own capital.

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

It is also clear that:

- the methodology applied to distribution is similar to that applied in manufacturing industries;
- the elaboration and setting up of the sample of major firms are therefore a basic research element;
- the compilation of Table 1 is a vital preliminary operation even if in certain cases and for certain units there are gaps in the figures.

Table 1 will set out the economic structure of each unit (referred to by name with corporate status or by a letter of the alphabet), the term "firm" being used for units deriving more than 50% of their turnover from food distribution and the term "unit of economic activity" (UEA) for units not achieving this 50% threshold[1].

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

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

In the second case, attention will be paid to sales points in a clearly defined area, with the sample method being applied in establishing a limited sample of 30 or 40 sales points in a limited number of areas (e.g. London, Munich, Aarhus, Turin) where the surveys are to be carried out. We shall return to this in paragraphs 8 *et seq* (especially 12).

---

[1] Table 1 may be regarded (i) as a quantitative synthesis, used as a base for a whole series of qualitative and descriptive considerations dealing with interlocking shareholdings and directorates between the main groups and firms, mergers, trade investments, formation of joint ventures, all involving these groups, and (ii) as an overview of their basic economic and financial features, technological structure, degree of integration and diversification, showing *inter alia*, the countries, industries and markets in which the groups operate. Hence the company profiles, which form a pretty voluminous appendix, link up with analyses of concentration and competition trends, on the various product markets. Indeed, everything links up with everything else.

SECTOR :

COUNTRY:

TABLE 1

ECONOMIC STRUCTURE – OF THE n* FIRMS FORMING THE SAMPLE
– OF THE MOST IMPORTANT UNITS OF ECONOMIC ACTIVITY (UEA)

| i | FIRM/UEA | VARIABLES | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TURNOVER | | | NET PROFIT | | | CASH FLOW | | | OWN MEANS | | | VALUE ADDED | | |
| | | (1) | (2) | | (1) | (2) | | (1) | (2) | | (1) | (2) | | (1) | (2) | |
| | | '000. | '000. | % | '000. | '000. | % | '000. | '000. | % | '000. | '000. | % | '000. | '000. | % |
| 1 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| ...... | | | | | | | | | | | | | | | | |
| n* | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | |
| .. | | | | | | | | | | | | | | | | |
| .. | | | | | | | | | | | | | | | | |
| .. | | | | | | | | | | | | | | | | |

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

(2) Proportion concerned by the relevant sector.

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

## 6. Oligopolistic interdependence: the three matrices

The results of the analyses on the economic structure of the major firms' sample($n^*$) regarded at national level may be set out in practical summary form in three matrices showing oligopolistic interdependence[1].

These matrices can be applied with equal facility to manufacturing industrie and to distribution; in, and according to, each individual case a large number of operational conclusions, remarks, and inferences can be drawn from them[2]. Developing the analyses of results thrown up by these matrices will be part of the work entrusted to the individual research teams. Here we shall simply explain how to construct and read these three matrices, all of which are set out on both the horizontal and vertical planes in decreasin order of a given index or ratio, which varies depending on the matrix as follows:

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

For matrix No. 2: $1^{r}i$ and $2^{r}i$;

For matrix No. 3: $1^{c}$ and $3^{c}$.

The various rankings of the variables for matrix No. 1 and of firms for matrices Nos. 2 and 3 are expressed by symbols ${}_{v}^{1}i$, ${}_{v}^{2}i$, ${}_{r}^{1}i$, ${}_{r}^{2}i$, ${}_{c}^{1}i$, ${}_{c}^{3}i$,
The following comments are called for:

### As regards matrix No. 1:

$L_{n^*_{h<}}$ = value corresponding to the maxima of the Linda index in the interval between $n^* = 2$ and $n^* = n^*_m$

---

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

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

# THE THREE MATRICES OF OLIGOPOLISTIC INTERDEPENDENCE:

SECTOR:

COUNTRY:

YEAR: t

MATRIX No 1:

OLIGOPOLISTIC UNEVENNESS

(of firms n*)

| | | | | | |
|---|---|---|---|---|---|
| | | $v_1^i$ | 1 | 2 | ... |
| | | VARIABLES | | | |
| $v_2^i$ | VARIABLES | $L_s$ \ $L_{n^*h}$ | | | |
| 1 | | | | | |
| 2 | | | | | |
| ... | | | | | |

MATRIX No 2:

COMPARATIVE EFFICIENCY LEVEL

(of firms n*)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $1^r$ \ $2^r$ | | | $r_1^i$ | 1 | 2 | ... | n* |
| | | | $E_i$ | | | | |
| | | | $1^r i$ | | | | |
| $r_2^i$ | $E_i$ | $2^r i$ | $1^x i$ \ $2^x i$ | $_1[\;]$ | $_1[\;]$ | ... | $_1[\;]$ |
| 1 | | | $_2[\;]$ | | | | |
| 2 | | | $_2[\;]$ | | | | |
| ... | | | ... | | | | |
| n* | | | $_2[\;]$ | | | | |

MATRIX No 3:

COMPARATIVE GROWTH RATE

(of firms n*)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $1^c$ \ $3^c$ | | | $c_1^i$ | 1 | 2 | ... | n* |
| | | | $E_i$ | | | | |
| | | | $1^c i,t$ | | | | |
| $c_3^i$ | $E_i$ | $3^c i,t$ | $1^x{}_{i,t}$ \ $3^x{}_{i,t}$ | $_1[\;]$ | $_1[\;]$ | $_1[\;]$ | $_1[\;]$ |
| 1 | | | $_3[\;]$ | | | | |
| 2 | | | $_3[\;]$ | | | | |
| ... | | | ... | | | | |
| n* | | | $_3[\;]$ | | | | |

$L_s$ = arithmetic mean of the L indices assuming

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

$n^*$ = number of units studied

$n^*_m$ = number of units corresponding to the minimum value of the L index within the analysis sample.

The L index is derived from the following formulae:

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

where:

$$EO_i = \frac{\frac{A_i}{i}}{\frac{A_{n^*} - A_i}{n^* - i}} = \frac{n^* - i}{i} \; \frac{A_i}{A_{n^*} - A_i} = \frac{n^* - i}{i} \; \frac{A_i}{1 - A_i}$$

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

$A_{n^*}$ = 100% = 1

<u>As regards matrix No 2:</u>

$E_i$ = firm or unit considered

$_1r = {_1r_i}$ = ratio of $\frac{\text{net profits}}{\text{turnover}}$ as percentage for each firm

$_2r = {_2r_i}$ = ratio $\frac{\text{net profits}}{\text{own means}}$ as percentage for each firm

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

${}_1x = {}_1x_i$ = absolute value of the turnover of a given firm

${}_2x = {}_2x_i$ = absolute value of the own capital of a given firm

${}_1[\;]_i$ = ranking of a given firm in the table of absolute values of turnover$({}_1x)$

${}_2[\;]_i$ = ranking of a given firm in the table of absolute values of own capital $({}_2x)$

As regards matrix No. 3:

t = base year

$${}_1c = {}^{t+1}_{\;\;1}c_{i,t} = {}^{t+1}_{\;\;1}a^{*}_{i,t} - {}^{t}_{1}a^{*}_{i,t}$$

where:

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

In other words, ${}_1c$ represents the positive or negative variation of the percentage share of a given firm i in the entire sample analysed, moving from one year (t) to the next (t+1).

The figure 1 represents turnover, and figure 3 shows net profit just as, as we have already seen for matrix No. 2, figure 2 referred to "own means".

Hence, where index ${}_1c$ represents the annual comparative growth rate of a given firm in relation to turnover, index ${}_3c$ represents this rate in relation to net profit. Another aim of the extension of the Commission computer programme is to allow for mensuration of the growth rate for other variables (persons employed, wages and salaries, gross investments, own means, value added, etc.) in addition to turnover (${}_1c$) and net profit ( ${}_3c$).

Matrix No. 3 serves as a basis for working out the dynamic indices (d,F) and the offsetting combined index ($\Lambda$)[1]:

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

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

We then obtain:

$$F = n^* \cdot d$$

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

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

---

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

## 7. Analysis of sub-industries and product markets

The food industry as a whole consists of a whole range of sub-industries of technologically widely differing natures and producing a vast number of products. Hence the various research projects on concentration in manufacturing have taken these sub-industries and their main products separately.

In France, for instance, work was done on 14 agro-industrial sub-industries:

- preserved foods (the whole industry, meat, vegetables, fish);
- milk;
- products derived from cereals (grain milling, biscuits, spaghetti, macaroni and the like);

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

Here it should be noted that:

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

II) The aim of this analysis is to establish the level of concentration and the operation of competition on each relevant market where interchangeable products can be used for the same purposes subject to given supply and price conditions. The analysis from this point of view has two poles of interest:

IIa) Firstly, it concerns manufacturers and producers operating on the various markets, specifying not only their names and brands but also changes in market shares, the relevant market being the national market for a specific product[1].

---

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

II-b) Secondly, the analysis has to follow each stage of the channel through which a given product or brand moves from manufacturer to final consumer.

In other words the entire economic area from production to consumption, with its structure and evolutive dialectic, has to be analysed, with the products or brands to be studied being selected by the sampling method. The sampling method is the operational response to a manifest technical constraint, since it would be impossible to pay such close attention to each and every one of the multitude of products and brands available on the market.

Using this last approach (II-b), there is a gradual progression from analysis at national level to analysis at local level, as will be seen in the following paragraphs.

## 8. The three distribution matrices: matrix No. 1

The results of the specific-point or local analyses of direct surveys on prices and mark-ups can in practical terms be set out in the form of three matrices, the distribution matrices.

The base for applying our methodology to distribution is the elaboration and setting up of two samples, one of firms and the other of products or brands.

As regards the firms sample, a distinction has to be made between:

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

The sample used for matrix No. 1 consists of a number of enterprises equal to $n^* + m^*$.

Hence we obtain:

$a^*_i$ = percentage accounted for by each major firm in total sales ($X^*$) of the sample of major firms ($n^*$) regarded at national level;

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

The bottom of distribution matrix No. 1 will show the aggregate national turnover of the retail trade for year t obtained from official statistical sources (in thousands or millions of the national unit of currency), with a breakdown where possible between the individual products ($y^*$) entering into the matrix.

COUNTRY :

DATE OF ENQUIRY :

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

YEAR t :

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RANK | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | ••• | y* | ALL FOOD PRODUCTS (MISCELLANEOUS) |
| | | PRODUCT OR BRAND | | | | | | | | | | | | | | | | | | | | | | |
| RANK | ENTERPRISE (RETAILER) AT NATIONAL LEVEL | $a^*_i$ $q_j$ | ▨ | | | WEIGHTED AVERAGE "MARK-UP" FOR EACH PRODUCT | | | | | | | | | | | | | | | | | | |
| | | ▨ | $p_j$ ${}_1x_i$ | | | ABSOLUTE PRICES FOR EACH PRODUCT (BRAND) CONSIDERED | | | | | | | | | | | | | | | | | | ▨ |
| 1 | BIG RETAILERS | RETAILERS' PERCENTAGE TURNOVERS | RETAILERS' ABSOLUTE TURNOVERS | | | | | | | | | | | | | | | | | | | | | ▨ |
| 2 | | | | | | | | | LOCAL ENQUIRY BY | | | | | | | | | | | | | | | ▨ |
| 3 | | | | | | | | | SAMPLE OF 30 OR MORE OUTLETS | | | | | | | | | | | | | | | ▨ |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | ▨ |
| ••• | | | | | | | | | | | | | | | | | | | | | | | | ▨ |
| n* | | | | | | | | | | | | | | | | | | | | | | | | ▨ |
| ••• | SMALL OUTLETS | | | | | | | | | | | | | | | | | | | | | | | ▨ |
| ••• | | | | | | | | | | | | | | | | | | | | | | | | ▨ |
| m* | | | | | | | | | | | | | | | | | | | | | | | | ▨ |
| ALL ENTERPRISES (RETAILERS) | | | | | | | | | | | | | | | | | | | | | | | | ▨ |

The vertical of matrix No. 1, as regards major firms sample n*, is thus closely related to the following tables, i.e.

- table No. 1, showing the economic structure of major firms (n*) incorporated in the sample, specifying that part of their business which concerns distribution and, more particularly, retail trade;

- the three matrices of oligopolistic interdependance, constructed from the individual variables or data relating to the same major firms in sample n* as is used for the three distribution matrices.

As for the horizontal of distribution matrix No. 1, it should be noted that:

$y^*$ = number of products or brands forming the sample;

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

$p_j$ = retail price of a given product in sample y*.

It is important also to note that:

- values $q_j$ and $p_j$ are generally averages, and are better interpreted if they are accompanied by indications of the upper and lower limits of the bracket within which the average values fall;

- these brackets and values must be drawn from the samples of firms and units (n* + m*) taken both at national level (where possible) and at local level.

Distribution matrix No. 1 is set out:

- on the horizontal plane (products or brands) in decreasing order of mark-ups on the relevant goods,

- on the vertical plane (firms) by size in national terms of firms and units measured according to their proportion of aggregate sales of the sample.

The central frame of the matrix sets out the results of the local surveys, in other words:

- the mark-up ($q_j$) recorded for each product or brand and applied to each firm or unit retailing the product or brand;

- the percentage ($a^*_i$) accounted for by each product or brand in the aggregate sales of each firm or unit at local level (or if this is not possible, at national level; this will be stated in the table).

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

- the units covered by this part are not the same sample of major firms ($n^*$) taken at national level but the sales points analysed in the sample area; these sales points may of course either be national major firms incorporated in sample ($n^*$) or small independent units ($m^*$);

- the $a^*_i$ figures given in the central frame thus set out percentages (for each product or brand) calculated not on the basis of the national sample of $n^*$ firms but on the local sample ($n^* + m^*$) used for the direct price survey.

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

a) establish the requirement for economic information in obtaining a valid overall picture of the operation of circuits, mechanism and units of distribution;

b) establish a global catalogue of the stock of economic information which is actually available, acquirable and useable on the basis of the accounting, administrative and legal rules in force in the various Member States.

## 9. Distribution matrix No. 2

Here we highlight comparative trends in retail and wholesale (or manufacturing) prices.

The matrix covers the same products or brands y* as matrix No. 1 and is set out with index $S_j$ on the horizontal plane and $S_m$ on the vertical plane where:

$S_j$ = ${}^{t+1}S_j$ = percentage variation (±) of the retail price of a given product as compared with the previous period (t) (12 months, 6 months, 3 months).

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

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

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

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

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

COUNTRY :

DATE OF ENQUIRY :

DISTRIBUTION MATRIX No 2: COMPARATIVE EVOLUTION OF MANUFACTURING AND CONSUMER PRICES

| | | | RETAIL PRICE | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PRODUCT OR BRAND | RANK | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | ••• | y* | ALL FOO PRODUCT |
| | RANK | | $S_j$<br>$S_m$ | $^{+}P_j$<br>$^{+}P_m$ | | | | | | | | | | | | | | | | | | | | |
| BUYING & MANUFACTURING PRICE | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | | | | | | | | | | | | | | | | | | | | | | | |
| | ••• | | | | | | | | | | | | | | | | | | | | | | | |
| | y* | | | | | | | | | | | | | | | | | | | | | | | |
| ALL FOOD PRODUCTS | | | | | | | | | | | | | | | | | | | | | | | | |

There are brackets for, among other things, variations and retail prices. There are two fundamental differences between distribution matrices Nos. 1 and 2:

a) on matrix No. 1, only the central frame relates to the local survey whereas the whole of matrix No. 2 contains results for the local survey with only the last column and the last line (aggregate food products) being reserved for variations and prices recorded at national level (using official statistics when necessary);

b) matrix No. 1 deals both with the sample of firms and sales points and with the sample of products, whereas matrix No. 2 covers exclusively the sample of products, although these are dealt with separately for comparison purposes at two levels:

- the retail stage
- the buying stage (from the manufacturer or importer).

At the first level, there are no technical difficulties; retail prices are posted in every shop - they are perfectly "transparent".

At the second level (buying prices), information can be obtained from "official" price lists (for certain types of product) or from producer industries, importers, customs departments, etc.

The price will be free delivered to warehouse or shop, or cif (cost, insurance, freight).

There are two main problems; firstly the manufacturing or import prices are not always "transparent" (far from it) while, secondly the price is not always the same for all buyers. Major distribution chains, collective buying organizations and selling organizations are in a position to obtain highly advantageous conditions, prices and discounts as a result of their strong bargaining positions which, in their turn, depend on the scale and continuity of their custom.

To simplify matters, we must work on the assumption in matrix No. 2, that for each product or brand there is a single average price charged to every purchaser, even if this is a fiction: this will generally be the list price before any discounts (there are a large number of types of discount, of varying degrees of "transparency"). Generally, this will, as well, be a buying price also valid at national level and not only that derived from direct surveys of the local sample of selling points.

One last point remains to be made as regards the connection between buying, manufacturing or import prices in matrix No. 2 and mark-ups in matrix No. 1. In general terms, whereever it is possible to discover or compute the buying prices for matrix No. 2, it is easy enough to work out average mark-ups for entry in matrix No. 1 and from there, with luck and effort, to establish the specific mark-ups actually applied in practice by the various sales points for the various relevant products[1].

## 10. Distribution matrix No. 3: the sales point sample

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

---

[1] Consequently, it is not impossible that negative mark-ups will appear at the extreme right of the horizontal plane in matrix No. 1 for certain products or brands. There would be two explanations for this:

- either large stores are obtaining very substantial discounts on official buying prices set out in the vertical plane of matrix No. 2;
- or these large stores are practising loss-leading techniques.

COUNTRY :

DATE OF ENQUIRY :

DISTRIBUTION MATRIX No 3: DIFFERENCES IN PRICE VARIATIONS BETWEEN BIG RETAILERS AND SMALL OUTLETS

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

TABLE 3

"MARKET STRUCTURE" DIVISION
RL/am

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

with the indication of the corresponding price variations (in %)

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

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

TABLE 2

"MARKET STRUCTURE" DIVISION

RL/am

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

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

This concise table will indicate - for each product or brand considered - the Maximum Price (MAX), the Minimum Price (MIN) and the Weighted Average Price (WAM) (resulting from the Arithmetic Mean, weighted according to the frequency).
Both each "Sales Point" (capital letter) and each product or brand (number) are coded.

In setting up the sample of sales points, valid for all the three distribution matrices, the diversification and representativity criteria must be taken as bases.

Hence there must be a distinction not only for supermarkets, "hypermarkets", cooperatives and small independent sales points, but also for siting (city centre, suburbs, village, small country town, etc.).

The object of matrix No. 3 is to reveal the operations and performance - measured in absolute terms and in terms of price variations - of all the sales points incorporated in the sample for the local survey. Hence they represent the final stage of a very thorough econometric analysis within which we shall be able to set a system of price variations and levels theoretically involving $y^*(n^* + m^*)$ factors, assuming that for each unit of the sales point sample $(n^* + m^*)$ there is a different price variation $(S_j)$ for each relevant product $(y^*)$.[1]

Assuming that $n^*$ is the number of sales points falling within the large firms category, actually consisting of supermarkets, and that $m^*$ is the number of small independent units, we obtain:

- $y^*.n^*$ terms on the horizontal plane

- $y^*.m^*$ terms on the vertical plane

all set out in decreasing order of $S_j$.

Clearly: $y^*.n^* + y^*.m^* = y^*(n^* + m^*)$

Hence there will be a price and a price variation for each product and each sales point.

The Matrix No. 3 may be summarized, as regards the first prices enquiry, in a concise "Scheme of Table of Comparative Prices registered at time "t" according to the Sales Points Type and Category", (table 2) which does not illustrate each single "Sales Point" but each Group or Category of "Sales Points". Thus, for instance, we will have A : "Supermarkets Town Centre"; B : "Supermarkets Suburban"; C : "Small Multiple Suburban"; D : "Cooperative Town Centre"; E : "Cooperative Suburban", and so on. For the further prices enquiries (t+i) it will be helpful to include, not only the absolute prices registered at the last survey (t+i) but also the the price variations, from time t to time t+i (Table 3).

---

[1] If, as would be quite exceptional, the sample for the local survey covered two or more sales points belonging to the same corporate group or association, the total number of factors could be higher than $y^*(n+ + m^*)$.

With matrix No. 3, as well as with the concise table described above, it will thus be possible to establish a number of salient phenomena characterizing distribution structures:

I) Are price variations and levels greater for certain types of product than for others?

II) Do these variations and levels change sharply, and if so how, between the various sales points (depending on their size and siting)?

III) Do these variations and prices change as between sales points belonging to the same distribution groups or associations?

A further comparison can be obtained from the bottom of matrix No. 3:

- $T_j$ = rate of stock turn.

If it were possible to take this aspect of the analysis a stage further and compare it with the various mark-ups applied by the sales points in the sample, economic conclusions could be reached on:

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

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

a) to formulate a number of hypotheses explaining the role and responsibility of distribution in the inflationary process:

b) to update and set on new empirical bases certain aspects of the theory of monopolistic competition posited by Piero Sraffa and E.H.Chamberlin[1],

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

c) to extend the interdependence and distribution model to cover competitive weapons and strategies other than prices (such as advertising, product differentiation).

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

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

- timing
- products or brands
- areas or regions.

For Table 1 (economic structure of the n* firms constituting the sample and of the most important business units) and the three matrices of oligopolistic interdependence, there should be one year intervals (one set of tables for each year of the study period).

For the three distribution matrices, it would be better for direct local surveys on prices to be made every quarter, for instance from 15 to 20 January, 15 to 20 April and so on (one set of tables for each quarter of the period).

The study period should go back at least to 1968-69 for Table 1 and the three matrices of oligopolistic interdependence.

On the other hand, it would be virtually impossible to use this Community methodology in order to carry out "retroactive" direct surveys of prices so that the three distribution matrices will be possible only from 1976.

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

- manufactured by major multinational groups;

- marketed in most Community countries;
- having an appreciable impact on family budgets, particularly as regards purchasing and consumption frequency (daily, weekly, monthly).

One point of twofold importance in establishing the sample concerns the selection of products; firstly, information must be fairly easy and cheap to obtain and, secondly, meaningful and consistent country-to-country comparisons must be possible[1].

Another general point is that in each country, within each product classification, the most widely sold brand or brands will be selected, even if these differ from one country to another.

Here, there will also be the problem of own label products; there are a number of goods which the major chain stores distribute under their own brand or name (especially preserved foods). Hence, for sales points not belonging to such chains, it will be necessary to find a brand which is equivalent to the own label brand as regards attractiveness to the consumer (and not only in terms of quality and quantity).

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

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

At a later stage[1], the product sample will gradually be extended so as to give a systematic analysis in each Community country of the most frequently represented food categories and brands.

Furthermore, it may be advisable to extend the surveys to cover goods which, although not food products as such, are nevertheless frequently sold at food sales points (such as detergents of different types and brands, household insecticides, a few other household products).

## 12. Selection of areas - interpretation of results

As we have already seen, a pilot survey will initially be carried out in no more than one area or region per country (London, Munich, Aarhus, Turin, Montpellier).

Thereafter the experience acquired with these pilot surveys will be used to increase the number of areas or zones, so that between six and ten will be covered in each Community country.

In France, for instance, there might be eight areas, giving, in addition to Montpellier, the Paris conurbation, and Nantes, Lille-Roubaix, Grenoble, Bordeaux, Nancy, Strasbourg and Marseilles areas.

Here it should be noted that:

- whereas extending the scope of the product sample has very little impact on research costs,
- extending the survey areas and regions does push costs up more or less proportionately (travel expenses), one determinant being the number of sales points to be surveyed.

It must not be forgotten that all sales points (in all the survey areas) must be surveyed in the same week if results are to be comparable.

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[1] New contracts may be concluded to finance this, if the Commission authorizes continuation of the surveys.

This being so, the idea will be to keep the number of survey areas or regions and the number of sales points visited quarterly in each area or region as low as possible.

Although experience may bring better counsel, at first sight 30 or 40 sales points, receiving quarterly visits in each survey area, would seem sufficient.

Obviously, if the sampling method is to be applied so rigorously with such careful regard to economy, the results of these studies must be interpreted with extreme caution.

In other words, we must ensure that the economic analysis is not distorted because the sample is too small.

General operational conclusions will thus be possible if certain common factors and other findings show an extremely high percentage of frequency as compared with the total number of cases studied, both as regards products and as regards sales points.

Remo Linda
Head of the Market Structure Division.

# II. THE FIRST AND THE SECOND PRICE SURVEY IN DENMARK

## Dates of the surveys:

21 to 24 of January 1976
26 to 3o of July 1976

Producer prices and wholesale prices the first week of February and the first week of August.

## Sample of retail shops:

For the first survey: Århus and Odense area. In the second survey are included a number of shops from the center of Copenhagen.

## Product categories and brands:

The first survey covers 29 product categories and a total of 56 different brands. 11 of these are private brands.
In the second survey are added 2o brands, which are shown at last in the tables.
The product categories are chosen in accordance to their importance for food consumption. The brands represent the major or one of the major suppliers. Private brands are included because the important cooperative sector rely heavily upon private brands.

## Retail price observations:

Retail prices are incl. 15% VAT.
The number of priceobservations indicates that the chosen brands have a high market coverage.

## Producers or Wholesale prices:

Producers prices are written in normal typed numbers.
Wholesale or direct distributors prices are written by pencil.
For all private brands and all products with direct distribution we have used the prices paid by the retailer.

For all other products we have used prices ab producer except in cases where it has been impossible to establish a reliable and valid producer price.

All prices are excl. VAT.

## III. Tabels with the Results of the Price Surveys

## First Price Survey in Denmark
## Århus and Odense, January 1976

| Product or Brand | No. of Obs. | Range High | Range Low | Average Retail Prices | Producers' Prices |
|---|---|---|---|---|---|
| Table Salt<br>Dansk salt 1 kg | 48 | 1.15 | o.8o | o.97 | o.18 |
| Wheat Flour<br>Gluten 1 kg | 34 | 3.5o | 2.88 | 3.18 | 2,35 |
| Wheat Flour<br>Safir 1 kg | 14 | 3.oo | 2.9o | 2.99 | 2.05 |
| Rye Flakes<br>Ota Solgryn 1 kg | 47 | 6.oo | 4.45 | 5.8o | 4.o2 |
| Corn Flakes<br>Kelloggs Snap 1 kg | 45 | 5.8o | 3.95 | 4.61 | 3.12 |
| Table Sugar<br>Dan sukker 1 kg | 45 | 3.8o | 3.35 | 3.63 | 2.67 |
| Rice<br>Ris-fix, 2 bags | 32 | 3.98 | 3.35 | 3.83 | 2.6o |
| Rice<br>Langkornet, 2 bags | 13 | 3.45 | 2.25 | 2.51 | 1.96 |
| Benfri Sild<br>555 pikant 65 g | 31 | 6.25 | 4.95 | 4.95 | 3.5o |
| Benfri Sild<br>Winner 65 g | 11 | 5.25 | 5.oo | 5.23 | 4.16 |
| Gaffelbidder<br>555 Liflig 65 g | 27 | 6.32 | 3.95 | 5.65 | 3.5o |
| Gaffelbidder<br>Winner 65 g | 11 | 5.5o | 4.45 | 4.88 | 4.02 |
| Canned Peas with Carrots<br>Beauvais, mellemdåse | 27 | 7.65 | 3.95 | 5.46 | 3.55 |
| Canned Peas with Carrots<br>Winner, mellemdåse | 13 | 5.6o | 4.65 | 5.1o | 3.83 |
| Canned Ananas<br>Del Monte 836 g | 23 | 8.28 | 5.95 | 6.96 | |
| Canned Pig Shoulder<br>Jaka 454 g | 15 | 15.65 | 1o.oo | 13.96 | 9.95 |
| Canned Pig Shoulder<br>Winner 454 g | 12 | 12.95 | 1o.95 | 12.37 | 9.30 |

## First Price Survey in Denmark
## Århus and Odense, January 1976

| Product or Brand | No. of Obs. | Range |  | Average Retail Prices | Producers' Prices |
|---|---|---|---|---|---|
|  |  | High | Low |  |  |
| Boullion Cubes<br>Maggi 12 cubes | 47 | 3.2o | 1.8o | 2.67 | 1.7o |
| Mayonnaise<br>Bäncke 150 g | 29 | 4.15 | 2.45 | 3.41 | 2.05 |
| Mayonnaise<br>FDB 150 g | 14 | 3.1o | 2.8o | 3.o8 | 2 27 |
| Moustard<br>Bänçke 200 g gl | 26 | 4.35 | 2.65 | 3.68 | 2 48 |
| Moustard<br>FDB 200 g gl | 14 | 3.9o | 3.o5 | 3.24 | 1,87 |
| Tomato Ketchup<br>Heinz 340 g btl. | 37 | 6.35 | 3.35 | 5.22 |  |
| Champignon Soup<br>Unox can | 21 | 6.65 | 3.95 | 5.96 | 4.17 |
| Champignon Soup<br>Knorr bag | 23 | 4.9o | 2.65 | 3.98 | 3.25 |
| Cockies<br>Kjeldsen, mix 250 g | 16 | 4.95 | 2.75 | 3.54 | 3.4o |
| Bisquits<br>Oxford Marie 200 g | 32 | 2.76 | 1.48 | 2.51 | 1.65 |
| Bisquits<br>Marie no.1 200 g | 14 | 2.75 | 2.25 | 2.68 | 1,96 |
| Choco Bisquits<br>Chokofryd 375 g | 24 | 7.85 | 4.98 | 6.92 | 4.71 |
| Potato Chips<br>DDS bag 100 g | 43 | 2.85 | 1.98 | 2.63 | 1,84 |
| Potato Chips<br>FDB bag 100 g |  |  |  |  |  |
| Baby Food, Juice<br>Nestlé 0,2 l | 42 | 4.35 | 2.95 | 3.72 | 2.5o |
| Baby Food, Canned Fruit<br>Nestlé 3 mdr. gl. | 42 | 2.85 | 1.95 | 2.45 | 1.67 |
| Strawberry Marmelade<br>Fenger 450 g | 15 | 6.45 | 4.95 | 5.79 | 4.45 |
| Strawberry Marmelade<br>Dronningholm 450 g | 42 | 11.15 | 5.95 | 8.32 | 4.87 |

First Price Survey in Denmark
Århus and Odense, January 1976

| Product or Brand | No. of Obs. | Range |  | Average Retail Prices | Producers' Prices |
|---|---|---|---|---|---|
|  |  | High | Low |  |  |
| Tea Bags<br>Medova 25 p.c. | 44 | 5.4o | 3.75 | 4.75 | 2.86 |
| Premixed Cacao<br>Nes quick 400 g | 35 | 13.15 | 8.95 | 11.56 | 7.35 |
| Instant Coffee<br>Nes Café 200 g | 42 | 31.85 | 19.95 | 27.32 | 2o.9o |
| Vac. Pack Coffee<br>Ali 500 g | 21 | 17.35 | 11.95 | 14.71 | 11.93 |
| Vac. Pack Coffee<br>Blå Cirkel 500 g | 13 | 15.95 | 14.35 | 15.67 | 13.17 |
| Table Margarine<br>Otto Mønsted 500 g | 3o | 4.15 | 2.5o | 3.58 | 3.17 |
| Table Margarine<br>Alfa 500 g | 27 | 4.15 | 3.22 | 3.78 | 3.17 |
| Table Margarine<br>FDB 500 g | 13 | 3.25 | 2.5o | 2.64 | 2,42 |
| Cream Powder<br>Coffee Mate 325 g | 31 | 15.oo | 7.95 | 12.91 | 10,86 |
| Camentbert Cheese<br>Høng 150 g | 45 | 5.85 | 4.9o | 5.37 | 3.28 |
| Danablue Cheese<br>Rosenborg 100 g | 23 | 5.oo | 2.75 | 3.72 |  |
| Frozen Peas<br>Danmark 380 g | 18 | 8.1o | 3.8o | 6.14 | 3.83 |
| Frozen Peas<br>Danefrost 250 g | 13 | 5.25 | 4.15 | 4.6o | 3o3 |
| Icecream Vanillia<br>Eventyr 1 l. | 18 | 8.95 | 6.75 | 7.85 | 7.oo |
| Chocolate<br>Toms Guldbarre 30 g | 43 | 1.65 | o.9o | 1.21 | 0,86 |
| Chewring Gum<br>Stimorol lo pieces | 45 | 1.oo | o.75 | o.99 | o.45 |
| Soda Water<br>Fanta o,25 l | 48 | 1.23 | 1.o4 | 1.16 | 0.76 |
| Cola<br>Coca Cola o,25 l | 48 | 1.23 | 1.o4 | 1.16 | 0.76 |

## First Price Survey in Denmark
## Århus and Odense, January 1976

| Product or Brand | No. of Obs. | Range | | Average Retail Prices | Producers' Prices |
|---|---|---|---|---|---|
| | | High | Low | | |
| Soda Water<br>Carlsberg Grape btl. | 48 | 1.23 | 1.04 | 1.16 | 0.76 |
| Beer<br>Carlsberg Hof btl. | 48 | 2.50 | 2.18 | 2.39 | 1.79 |
| Beer<br>Tuborg Guld btl. | 47 | 3.57 | 2.72 | 3.01 | 1.79 |
| Beer<br>Faxe Fad can | 48 | 4.10 | 3.57 | 3.89 | 2.86 |

## Second Price Survey in Denmark
## Århus, Odense and Copenhagen, July 1976

| Product or Brand | No. of Observations | Range High | Low | Average Retail Price | Variation January-July % | Producers' Prices |
|---|---|---|---|---|---|---|
| Table Salt<br>Dansk salt 1 kg | 48 | 1.30 | 0.85 | 1.00 | + 3.09 | 0.18 |
| Wheat Flour<br>Gluten 1 kg | 32 | 3.50 | 2.95 | 3.30 | + 3.77 | 2.25 |
| Wheat Flour<br>Safir 1 kg | 14 | 3.95 | 3.15 | 3.20 | + 7.02 | 2.53 |
| Rye Flakes<br>Ota Solgryn 1 kg | 46 | 6.75 | 4.95 | 6.06 | + 4.48 | 5.10 |
| Corn Flakes<br>Kelloggs Snap 1 kg | 42 | 5.15 | 4.15 | 4.70 | + 1.96 | 3.12 |
| Table Sugar<br>Dan sukker 1 kg | 44 | 4.30 | 3.50 | 3.89 | + 7.16 | 2.88 |
| Rice<br>Ris-fix, 2 bags | 33 | 4.00 | 3.10 | 3.74 | - 2.35 | 2.40 |
| Rice<br>Langkornet, 2 bags | 13 | 2.45 | 2.45 | 2.45 | - 2.39 | 1.96 |
| Benfri Sild<br>555 pikant 65 g | 31 | 9.25 | 3.98 | 6.00 | + 7.91 | 3.60 |
| Benfri Sild<br>Winner 65 g | 13 | 5.85 | 5.55 | 5.83 | + 11.47 | 4.48 |
| Gaffelbidder<br>555 Liflig 65 g | 26 | 8.40 | 5.25 | 6.00 | + 6.20 | 3.60 |
| Gaffelbidder<br>Winner 65 g | 13 | 5.45 | 5.20 | 5.43 | + 11.27 | 4.18 |
| Canned Peas with Carrots<br>Beauvais, mellemdåse | 29 | 7.10 | 3.25 | 5.10 | - 6.59 | 3.55 |

Second Price Survey in Denmark
Århus, Odense and Copenhagen, July 1976

| Product or Brand | No. of Observations | Range | | Average Retail Price | Variation January-July | Producers' Prices |
|---|---|---|---|---|---|---|
| | | High | Low | | | |
| Canned Peas with Carrots<br>Winner, mellemdåse | 13 | 5.75 | 4.7o | 5.22 | + 2.35 | 4.08 |
| Canned Ananas<br>Del Monte 836 g | 25 | 7.45 | 5.35 | 6.68 | - 4.o2 | 5.29 |
| Canned Pig Shoulder<br>Jaka 454 g | 14 | 16.98 | 1o.95 | 13.92 | - o.29 | 1o.95 |
| Canned Pig Shoulder<br>Winner 454 g | 8 | 13.95 | 9.95 | 12.61 | + 1.94 | 11.05 |
| Boullion Cubes<br>Maggi 12 cubes | 47 | 3.75 | 2.5o | 2.94 | +1o.11 | 1.7o |
| Mayonnaise<br>Bäncke 150 g | 3o | 3.95 | 2.95 | 3.5o | + 2.64 | 2.63 |
| Mayonnaise<br>FDB 150 g | 14 | 3.3o | 3.1o | 3.28 | + 6.49 | 2.41 |
| Moustard<br>Bäncke 200 g gl | 2o | 4.25 | 3.25 | 3,67 | - o.27 | 2.94 |
| Moustard<br>FDB 200 g gl | 14 | 3.5o | 3.3o | 3.49 | + 7.72 | 2.29 |
| Tomato Ketchup<br>Heinz 340 g btl. | 31 | 6.35 | 3.95 | 5.18 | - o.77 | 3.96 |
| Champignon Soup<br>Unox can | 2o | 6.98 | 4.15 | 6.26 | + 5.o4 | 4.5o |
| Champignon Soup<br>Knorr bag | 24 | 5.4o | 2.95 | 4.65 | +16.83 | 3,75 |
| Cookies<br>Kjeldsen, mix 250 g | 14 | 4.95 | 3.45 | 4.11 | +16.1o | 3.4o |

## Second Price Survey in Denmark
## Århus, Odense and Copenhagen, July 1976

| Product or Brand | No. of Observations | Range High | Range Low | Average Retail Price | Variation January-July % | Producers' Prices. |
|---|---|---|---|---|---|---|
| Bisquits<br>Oxford Marie 200 g | 34 | 2.90 | 2.25 | 2.71 | + 7.97 | 1.77 |
| Bisquits<br>Marie no.1 200 g | 14 | 2.75 | 2.10 | 2.61 | - 2.61 | 1.96 |
| Choco Bisquits<br>Chokofryd 375 g | 30 | 7.95 | 4.98 | 7.28 | + 5.20 | 4.83 |
| Potato Chips<br>DDS bag 100 g | 23 | 2.98 | 1.98 | 2.68 | + 0.75 | 1.60 |
| Potato Chips<br>FDB bag 100 g | 13 | 2.65 | 2.50 | 2.64 | | 1.95 |
| Baby Food, Juice<br>Nestlé 0,2 l | 40 | 4.85 | 2.85 | 4.03 | + 8.33 | 2.75 |
| Baby Food, Canned Fruit<br>Nestlé 3 mdr. gl. | 43 | 3.35 | 1.98 | 2.68 | + 9.39 | 1.83 |
| Strawberry Marmelade<br>Fenger 450 g | 23 | 7.48 | 5.50 | 6.28 | + 8.46 | 4.30 |
| Strawberry Marmelade<br>Dronningholm 450 g | 41 | 11.75 | 6.85 | 8.78 | + 5.53 | 5.25 |
| Tea Bags<br>Medova 25 p.c. | 46 | 5.50 | 3.95 | 4.78 | + 0.63 | 2.86 |
| Premixed Cacao<br>Nes quick 400 g | 36 | 12.70 | 8.95 | 11.42 | - 1.21 | 7.35 |
| Instant Coffee<br>Nes Café 200 g | 41 | 34.38 | 23.75 | 30.20 | +10.54 | 20.90 |
| Vac. Pack Coffee<br>Ali 500 g | 23 | 17.95 | 11.95 | 15.24 | + 3.60 | 16.10 |

## Second Price Survey in Denmark
## Århus, Odense and Copenhagen, July 1976

| Product or Brand | No. of Observations | Range High | Low | Average Retail Price | Variation January-July | Producers' Prices |
|---|---|---|---|---|---|---|
| Vac. Pack Coffee Blå Cirkel 500 g | 14 | 18.95 | 16.95 | 17.38 | + 1o.91 | 15.25 |
| Table Margarine Otto Mønsted 500 g | 29 | 4.35 | 2.25 | 3.78 | + 5.59 | 3.55 |
| Table Margarine Alfa 500 g | 27 | 4.35 | 2.25 | 3.83 | + 1.32 | 3.55 |
| Table Margarine FDB 500 g | 14 | 3.8o | 2.6o | 2.99 | + 13.26 | 2.72 |
| Cream Powder Coffee Mate 325 g | 32 | 15.65 | 8.o8 | 12.85 | - o.46 | 10.75 |
| Camentbert Cheese Høng 150 g | 32 | 4.2o | 2.95 | 3.36 | - 37.43 | 2.o9 |
| Danablue Cheese Rosenborg 100 g | 25 | 5.25 | 3.25 | 4.52 | + 21.51 | 2.95 |
| Frozen Peas Danmark 380 g | 2o | 7.95 | 4.95 | 5.9o | - 3.91 | |
| Frozen Peas Danefrost 250 g | 13 | 4.25 | 4.25 | 4.25 | - 7.61 | 3.10 |
| Icecream Vanillia Eventyr 1 l. | 17 | 8.95 | 7.75 | 7.85 | ± o.o | 5.82 |
| Chocolate Toms Guldbarre 30 g | 42 | 1.25 | o.9o | 1.19 | - 1.65 | 0,90 |
| Chewring Gum Stimorol 1o pieces | 44 | 1.oo | o.9o | 1.oo | + 1.o1 | 0,74 |
| Soda Water Fanta o,25 l | 47 | 1.62 | 1.o7 | 1.2o | + 3.45 | 0,92 |

## Second Price Survey in Denmark
## Århus, Odense and Copenhagen, July 1976

| Product or Brand | No. of Observations | Range High | Range Low | Average Retail Price | Variation January-July | Producers' Prices |
|---|---|---|---|---|---|---|
| Cola<br>Coca Cola o,25 1 | 47 | 1.62 | 1.o7 | 1.2o | + 3.45 | 0.92 |
| Soda Water<br>Carlsberg Grape btl. | 47 | 1.62 | 1.o7 | 1.2o | + 3.45 | 0.42 |
| Beer<br>Carlsberg Hof btl. | 47 | 2.88 | 2.3o | 2.49 | + 4.18 | 2.12 |
| Beer<br>Tuborg Guld btl. | 45 | 3.68 | 2.82 | 3.12 | + 3.65 | 2.52 |
| Beer<br>Faxe Fad can | 47 | 4.15 | 3.78 | 3.97 | + 2.o6 | 3.42 |
| Rye Flakes<br>Kelloggs Hayre Mix 500 g | 44 | 8.1o | 6.45 | 7.o7 | | 4.5o |
| Frost Flakes<br>Kelloggs 5oo g | 37 | 8.15 | 6.3o | 7.36 | | 4.78 |
| Cereals<br>Kelloggs Special K 200 g | 33 | 8.1o | 5.5o | 6.o5 | | 3.86 |
| Spagetti<br>Gluten 230 g | 4o | 3.38 | 2.5o | 3.o3 | | 2.31 |
| Spagetti<br>Møllerens (Kelloggs) 400/g | 23 | 7.65 | 3.9o | 4.46 | | 2.88 |
| Spagetti<br>Zambetti 250 g | 14 | 3.25 | 2.85 | 3.o5 | | 2.29 |
| Spagetti Dish, Tomato Sauce<br>Kraft: Miracoli, 4-5 | 27 | 11.28 | 6.75 | 1o.oo | | 6.2o |
| Spagetti Dish, Sauce Italienne<br>Kraft: Miracoli, 2-3 | 34 | 1o.45 | 4.95 | 8.o4 | | 5.oo |

Second Price Survey in Denmark
Århus, Odense and Copenhagen, July 1976

| Product or Brand | No. of Observations | Range High | Range Low | Average Retail Price | Variation January-July | Producers' Prices. |
|---|---|---|---|---|---|---|
| Brie<br>Kohave 200 g | 33 | 7.95 | 5.95 | 6.60 | | 4.05 |
| Parmesam Cheese<br>40 g | 16 | 3.45 | 2.95 | 3.18 | | 2.15 |
| Cream Cheese<br>Castello Bouquet 90 g | 41 | 5.10 | 4.10 | 4.27 | | 3,51 |
| Cheese<br>Tartare 80 g | 34 | 5.00 | 3.85 | 4.53 | | 3.50 |
| Cheese<br>Høng Ambassadeur 450 g | 22 | 12.85 | 11.85 | 12.69 | | 8.04 |
| Frozen Fish<br>10 sticks | 24 | 9.95 | 6.95 | 8.53 | | |
| Frozen Fish<br>Danefrost 10 sticks | 6 | 8.00 | 6.00 | 7.33 | | 5.84 |
| Icecream Vanillia<br>Frisko 1 l. | 21 | 9.15 | 5.10 | 7.49 | | 5,71 |
| Cream Dessert<br>Frisko 1 l. | 19 | 14.00 | 6.90 | 9.09 | | 5.60 |
| Cream Dessert<br>Danefrost 1 l. | 13 | 8.00 | 7.30 | 7.95 | | 5.93 |
| Cola<br>Pepsi Cola 0,25 l. | 47 | 1.62 | 1.07 | 1.20 | | 0,92 |
| Cola<br>Jolly Cola btl. | 47 | 1.62 | 1.07 | 1.20 | | 0.92 |

### First Price Survey in Denmark
### Århus and Odense, January 1976
### Differences in Price Variations Between
### Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Small Outlets' Prices |
|---|---|---|
| Table Salt<br>Dansk salt 1 kg | 0.96 | 1.00 |
| Wheat Flour<br>Gluten 1 kg | 3.15 | 3.21 |
| Wheat Flour<br>Safir 1 kg | 3.00 | 2.97 |
| Rye Flakes<br>Ota Solgryn 1 kg | 5.48 | 5.92 |
| Corn Flakes<br>Kelloggs Snap 1 kg | 4.55 | 4.72 |
| Table Sugar<br>Dan sukker 1 kg | 3.61 | 3.67 |
| Rice<br>Ris-fix, 2 bags | 3.77 | 3.91 |
| Rice<br>Langkornet, 2 bags | 2.53 | 2.45 |
| Benfri Sild<br>555 pikant 65 g | 5.64 | 5.93 |
| Benfri Sild<br>Winner 65 g | 5.23 | 5.25 |
| Gaffelbidder<br>555 Liflig 65 g | 5.53 | 5.93 |
| Gaffelbidder<br>Winner 65 g | 4.84 | 5.05 |
| Canned Peas with Carrots<br>Beauvais, mellemdåse | 5.00 | 6.03 |
| Canned Peas with Carrots<br>Winner, mellemdåse | 5.15 | 4.85 |
| Canned Ananas<br>Del Monte 836 g | 6.91 | 7.48 |
| Canned Pig Shoulder<br>Jaka 454 g | 13.89 | 14.22 |
| Canned Pig Shoulder<br>Winner 454 g | 12.39 | 12.28 |

## First Price Survey in Denmark
Århus and Odense, January 1976
Differences in Price Variations Between
Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Small Outlets' Prices |
|---|---|---|
| Boullion Cubes<br>Maggi 12 cubes | 2.61 | 2.75 |
| Mayonnaise<br>Bäncke 150 g | 3.31 | 3.5o |
| Mayonnaise<br>FDB 150 g | 3.o7 | 3.1o |
| Moustard<br>Bäncke 200 g gl | 3.58 | 3.88 |
| Moustard<br>FDB 200 g gl | 3.25 | 3.2o |
| Tomato Ketchup<br>Heinz 340 g btl. | 5.14 | 5.37 |
| Champignon Soup<br>Unox can | 5.89 | 6.13 |
| Champignon Soup<br>Knorr bag | 3.88 | 4.32 |
| Cookies<br>Kjeldsen, mix 250 g | 3.46 | 3.88 |
| Bisquits<br>Oxford Marie 200 g | 2.43 | 2.63 |
| Bisquits<br>Marie no. 1 200 g | 2.66 | 2.75 |
| Choco Bisquits<br>Chokofryd 375 g | 6.71 | 7.59 |
| Potato Chips<br>DDS bag 100 g | 2.6o | 2.68 |
| Potato Chips<br>FDB bag 100 g | | |
| Baby Food, Juice<br>Nestlé 0,2 l | 3.71 | 3.74 |
| Baby Food, Canned Fruit<br>Nestlé 3 mdr. gl. | 2.41 | 2.55 |
| Strawberry Marmelade<br>Fenger 450 g | 5.8o | 5.78 |

## First Price Survey in Denmark
## Århus and Odense, January 1976
## Differences in Price Variations Between
## Big Retailers and Small Outlets.

| Product or Brand | Big Retailers Prices | Small Outlets' Prices |
|---|---|---|
| Strawberry Marmelade<br>Dronningholm 450 g | 8.22 | 8.52 |
| Tea Bags<br>Medova 25 p.c. | 4.67 | 4.87 |
| Premixed Cacao<br>Nes quick 400 g | 11.35 | 11.98 |
| Instant Coffee<br>Nes Café 200 g | 27.32 | 27.32 |
| Vac. Pack Coffee<br>Ali 500 g | 14.2o | 15.74 |
| Vac. Pack Coffee<br>Blå Cirkel 500 g | 15.62 | 15.95 |
| Table Margarine<br>Otto Mønsted 500 g | 3.46 | 3.79 |
| Table Margarine<br>Alfa 500 g | 3.96 | 3.8o |
| Table Margarine<br>FDB 500 g | 2.66 | 2.6o |
| Cream Powder<br>Coffee Mate 325 g | 12.84 | 13.o9 |
| Camentbert Cheese<br>Høng 150 g | 5.32 | 5.46 |
| Danablue Cheese<br>Rosenborg 100 g | 3.65 | 4.o5 |
| Frozen Peas<br>Danmark 380 g | 5.94 | 6.45 |
| Frozen Peas<br>Danefrost 250 g | 4.56 | 4.75 |
| Icecream Vanillia<br>Eventyr 1 l. | 7.62 | 8.21 |
| Chocolate<br>Toms Guldbarre 30 g | 1.2o | 1.23 |
| Chewring Gum<br>Stimorol lo pieces | o.99 | o.99 |

## First Price Survey in Denmark
## Århus and Odense, January 1976
## Differences in Price Variations Between Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Small Outlets' Prices |
|---|---|---|
| Soda Water<br>Fanta o,25 1 | 1.15 | 1.18 |
| Cola<br>Coca Cola o,25 1 | 1.15 | 1.18 |
| Soda Water<br>Carlsberg Grape btl. | 1.15 | 1.18 |
| Beer<br>Carlsberg Hof btl. | 2.37 | 2.42 |
| Beer<br>Tuborg Guld btl. | 2.95 | 3.11 |
| Beer<br>Faxe Fad can | 3.85 | 3.95 |

## Second Price Survey in Denmark
## Århus, Odense and Copenhagen, July 1976
## Differences in Price Variations Between Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Variation January-July % | Small Outlets' Prices | Variation January-July % |
|---|---|---|---|---|
| Table Salt<br>Dansk salt 1 kg | 0.99 | + 3.12 | 1.03 | + 3.00 |
| Wheat Flour<br>Gluten 1 kg | 3.29 | + 4.44 | 3.32 | + 3.21 |
| Wheat Flour<br>Safir 1 kg | 3.14 | + 4.67 | 3.15 | + 6.06 |
| Rye Flakes<br>Ota Solgryn 1 kg | 6.04 | +10.22 | 6.12 | + 3.88 |
| Corn Flakes<br>Kelloggs Snap 1 kg | 4.67 | + 2.64 | 4.74 | + 0.42 |
| Table Sugar<br>Dan sukker 1 kg | 3.90 | + 8.03 | 3.87 | + 5.45 |
| Rice<br>Ris-fix, 2 bags | 3.67 | - 2.65 | 3.84 | - 1.79 |
| Rice<br>Langkornet, 2 bags | 2.45 | - 3.16 | 2.45 | + 0 |
| Benfri Sild<br>555 pikant 65 g | 5.93 | + 5.14 | 6.15 | + 3.71 |
| Benfri Sild<br>Winner 65 g | 5.82 | + 11.28 | 5.85 | +11.43 |
| Gaffelbidder<br>555 Liflig 65 g | 5.91 | + 6.87 | 6.31 | + 6.41 |
| Gaffelbidder<br>Winner 65 g | 5.43 | +12.19 | 5.45 | + 7.92 |
| Canned Peas with Carrots<br>Beauvais, mellemdåse | 4.97 | - 0.60 | 5.35 | -11.28 |
| Canned Peas with Carrots<br>Winner, mellemdåse | 5.22 | + 1.36 | 5.23 | + 7.84 |
| Canned Ananas<br>Del Monte 836 g | 6.64 | - 3.91 | 7.45 | - 0.40 |
| Canned Pig Shoulder<br>Jaka 454 g | 13.71 | - 1.30 | 14.59 | + 2.60 |
| Canned Pig Shoulder<br>Winner 454 g | 12.61 | + 1.78 | 0 | 0 |

Second Price Survey in Denmark
Århus, Odense and Copenhagen, July 1976
Differences in Price Variations Between
Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Variation January-July | Small Outlets' Prices | Variation January-July |
|---|---|---|---|---|
| Boullion Cubes<br>Maggi 12 cubes | 2.92 | + 11.88 | 3.o4 | + 1o.55 |
| Mayonnaise<br>Bäncke 150 g | 3.41 | + 3.o2 | 3.62 | + 3.43 |
| Mayonnaise<br>FDB 150 g | 3.27 | + 6.51 | 3.3o | + 6.45 |
| Moustard<br>Bäncke 200 g gl | 3.71 | + 3.63 | 3.51 | - 9.54 |
| Moustard<br>FDB 200 g gl | 3.48 | + 7.o8 | 3.5o | + 9.38 |
| Tomato Ketchup<br>Heinz 340 g btl. | 5.14 | ± o | 5.29 | - 1.49 |
| Champignon Soup<br>Unox can | 6.1o | + 3.57 | 6.62 | + 7.99 |
| Champignon Soup<br>Knorr bag | 4.51 | + 16.24 | 4.99 | +15.51 |
| Cookies<br>Kjeldsen, mix 250 g | 4.14 | + 19.65 | 3.95 | + 1.8o |
| Bisquits<br>Oxford Marie 200 g | 2.71 | + 11.52 | 2.71 | + 3.o4 |
| Bisquits<br>Marie no.1 200 g | 2.57 | - 3.38 | 2.75 | ± o |
| Choco Bisquits<br>Chokofryd 375 g | 6.13 | - 8.64 | 7.51 | - 1.o5 |
| Potato Chips<br>DDS bag 100 g | 2.63 | + 1.15 | 2.75 | + 2.61 |
| Potato Chips<br>FDB bag 100 g | | | | |
| Baby Food, Juice<br>Nestlê 0,2 1 | 4.o3 | + 8.63 | 4.o6 | + 8.56 |
| Baby Food, Canned Fruit<br>Nestlê 3 mdr. gl. | 2.66 | +1o.37 | 2.73 | + 7.o6 |
| Strawberry Marmelade<br>Fenger 450 g | 6.28 | + 8.28 | 6.28 | + 8.65 |

Second Price Survey in Denmark
Århus, Odense and Copenhagen, July 1976
Differences in Price Variations Between
Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Variation January-July | Small Outlets' Prices | Variation January-July |
|---|---|---|---|---|
| Strawberry Marmelade<br>Dronningholm 450 g | 8.7o | + 5.84 | 9.o2 | + 5.87 |
| Tea Bags<br>Medova 25 p.c. | 4.74 | + 1.5o | 4.87 | ± 0 |
| Premixed Cacao<br>Nes quick 400 g | 11.15 | - 1.76 | 12.o4 | + o.5o |
| Instant Coffee<br>Nes Cafê 200 g | 3o.58 | +11.93 | 29.o3 | + 6.26 |
| Vac. Pack Coffee<br>Ali 500 g | 14.8o | + 4.23 | 16.o8 | + 2.16 |
| Vac. Pack Coffee<br>Blå Cirkel 500 g | 17.5o | +12.o4 | 16.95 | + 6.27 |
| Table Margarine<br>Otto Mønsted 500 g | 3.73 | + 7.8o | 3.89 | + 2.64 |
| Table Margarine<br>Alfa 500 g | 3.81 | + 1.33 | 3.86 | + 1.58 |
| Table Margarine<br>FDB 500 g | 2.96 | +11.28 | 3.1o | +19.23 |
| Cream Powder<br>Coffee Mate 325 g | 12.97 | + 1.ol | 12.55 | - 4.13 |
| Camentbert Cheese<br>Høng 150 g | 3.32 | -37.6o | 3.5o | -35.9o |
| Danablue Cheese<br>Rosenborg 100 g | 4.54 | +24.38 | 4.38 | + 8.15 |
| Frozen Peas<br>Danmark 380 g | 5.91 | - o.51 | 5.88 | - 8.84 |
| Frozen Peas<br>Danefrost 250 g | 4.25 | - 6.8o | 4.25 | -1o.53 |
| Icecream Vanillia<br>Eventyr 1 l. | 7.71 | + 1.18 | 8.11 | - 1.22 |
| Chocolate<br>Toms Guldbarre 30 g | 1.17 | - 2.5o | 1.22 | - 0.81 |
| Chewring Gum<br>Stimorol lo pieces | 1.oo | 1.ol | 1.oo | + 1.ol |

## Second Price Survey in Denmark
## Århus, Odense and Copenhagen, July 1976
## Differences in Price Variations Between Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Variation January-July | Small Outlets' Prices | Variation January-July |
|---|---|---|---|---|
| Soda Water<br>Fanta o,25 l | 1.22 | + 6.o9 | 1.25 | + 5.93 |
| Cola<br>Coca Cola o,25 l | 1.22 | + 6.o9 | 1.25 | + 5.93 |
| Soda Water<br>Carlsberg Grape btl. | 1.22 | + 6.o9 | 1.25 | + 5.93 |
| Beer<br>Carlsberg Hof btl. | 2.48 | + 4.64 | 2.51 | + 3.72 |
| Beer<br>Tuborg Guld btl. | 3.o8 | + 4.41 | 3.21 | + 3.22 |
| Beer<br>Faxe Fad can | 3.94 | + 2.34 | 4.ol | + 1.52 |
| Rye Flakes<br>Kelloggs Havre Mix 500 g | 7.oo | | 7.22 | |
| Frost Flakes<br>Kelloggs 5oo g | 7.28 | | 7.7o | |
| Cereals<br>Kelloggs Special K 200 g | 5.98 | | 6.64 | |
| Spagetti<br>Gluten 230 g | 2.99 | | 3.11 | |
| Spagetti<br>Møllerens (Kelloggs) 400 g | 4.49 | | 4.26 | |
| Spagetti<br>Zambetti 250 g | 3.o5 | | | |
| Spagetti Dish, Tomato Sauce<br>Kraft: Miracoli, 4-5 | 9.9o | | 1o.84 | |
| Spagetti Dish, Italienne<br>Kraft: Miracoli, 2-3 | 8.13 | | 7.75 | |

Second Price Survey in Denmark
Århus, Odense and Copenhagen, July 1976
Differences in Price Variations Between
Big Retailers and Small Outlets.

| Product or Brand | Big Retailers' Prices | Variation January-July | Small Outlets' Prices | Variation January-July |
|---|---|---|---|---|
| Brie<br>Kohave 200 g | 6.6o | | 6.58 | |
| Parmesam Cheese<br>40 g | 3.16 | | 3.3o | |
| Cream Cheese<br>Castello Bouquet 90 g | 4.28 | | 4.25 | |
| Cheese<br>Tartare 80 g | 4.53 | | 4.54 | |
| Cheese<br>Høng Ambassadeur 450 g | 12.69 | | | |
| Frozen Fish<br>10 sticks | 8.57 | | 8.45 | |
| Frozen Fish<br>Danefrost 10 sticks | 7.2o | | 8.oo | |
| Icecream Vanillia<br>Frisko 1 l. | 7.61 | | 7.14 | |
| Cream Dessert<br>Frisko 1 l. | 9.13 | | 8.94 | |
| Cream Dessert<br>Danefrost 1 l. | 7.93 | | 8.oo | |
| Cola<br>Pepsi Cola o,25 l. | 1.22 | | 1.25 | |
| Cola<br>Jolly Cola btl. | 1.22 | | 1.25 | |

# First Price Survey in Denmark, January 1976 in Århus and Odense

## - Sales Point Category by Location -

| Location \ Product | | Table Salt Dansk salt 1 kg | Wheat Flour Gluten 1 kg | Wheat Flour Safir 1 kg | Rye Flakes Ota Solgryn 1 kg | Corn Flakes Kelloggs Snap 1 kg | Table Sugar Dan sukker 1 kg | Rice Ris-fix, 2 bags | Rice Langkornet, 2 bags | Benfri Sild 555 pikant 65 g | Benfri Sild Winner 65 g | Gaffelbidder 555 Liflig 65 g | Gaffelbidder Winner 65 g | Canned Peas with Carrots Beauvais, mellemdåse | Canned Peas with Carrots Winner, mellemdåse | Canned Ananas Del Monte 836 g | Canned Pig Shoulder Jaka 454 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | | | | | | | | | | | | | | | | |
| | MIN | | | | | | | | | | | | | | | | |
| | WAM | | | | | | | | | | | | | | | | |
| B. Town Centers, City Core. | MAX | 1,08 | 3,20 | | 5,95 | 5,80 | 3,80 | 3,95 | | 6,15 | | 5,65 | | 6,75 | | 7,50 | 14,10 |
| | MIN | 0,85 | 2,90 | | 4,75 | 3,95 | 3,50 | 3,55 | | 5,50 | | 5,50 | | 4,65 | | 6,90 | 13,85 |
| | WAM | o,94 | 3,05 | | 5,63 | 4,59 | 3,63 | 3,70 | | 5,73 | | 5,61 | | 5,09 | | 7,15 | 14,04 |
| C. Town Centers, Local Shops. | MAX | 1,o8 | 3,50 | | 5,95 | 4,75 | 3,75 | 3,95 | | 6,05 | | 5,98 | | 7,00 | | 8,28 | 15,65 |
| | MIN | 0,85 | 3,00 | | 5,75 | 4,45 | 3,50 | 3,55 | | 5,25 | | 3,95 | | 3,98 | | 6,90 | 10,00 |
| | WAM | 0,99 | 3,22 | | 5,92 | 4,66 | 3,65 | 3,87 | | 5,73 | | 5,21 | | 5,49 | | 7,29 | 13,65 |
| D. Suburban Areas, Shopping Areas. | MAX | 1,10 | 3,40 | | 6,00 | 4,88 | 3,75 | 3,98 | | 5,95 | | 5,95 | | 6,70 | | 6,98 | 13,98 |
| | MIN | 0,90 | 3,20 | | 5,75 | 4,25 | 3,50 | 3,90 | | 5,35 | | 5,35 | | 3,98 | | 5,98 | 12,35 |
| | WAM | 0,98 | 3,26 | | 5,91 | 4,71 | 3,63 | 3,92 | | 5,67 | | 5,61 | | 5,15 | | 6,65 | 13,17 |
| E. Surburban Areas, Local Shops. | MAX | 1,03 | 3,25 | | 5,95 | 4,75 | 3,80 | 3,98 | | 6,25 | | 6,32 | | 7,65 | | 7,45 | 15,45 |
| | MIN | 0,95 | 3,15 | | 5,80 | 4,10 | 3,50 | 3,85 | | 5,80 | | 5,50 | | 5,50 | | 6,85 | 13,35 |
| | WAM | 0,99 | 3,21 | | 5,92 | 4,60 | 3,66 | 3,90 | | 6,03 | | 5,98 | | 6,45 | | 7,15 | 14,73 |
| F. Shopping Centers | MAX | 1,15 | 3,35 | | 6,00 | 4,75 | 3,80 | 3,95 | | 5,95 | | 6,15 | | 5,95 | | 7,05 | 14,10 |
| | MIN | 0,80 | 2,88 | | 4,45 | 3,95 | 3,35 | 3,35 | | 4,95 | | 4,95 | | 3,95 | | 5,95 | 13,95 |
| | WAM | 0,97 | 3,15 | | 5,60 | 4,55 | 3,58 | 3,74 | | 5,49 | | 5,59 | | 4,88 | | 6,72 | 14,03 |

# First Price Survey in Denmark, January 1976 in Århus and Odense

## - Sales Point Category by Location -

| Product<br>Location | | Canned Pig Shoulder Winner 454 g | Boullion Cubes Maggi 12 cubes | Mayonnaise Bäncke 150 g | Mayonnaise FDB 150 g | Moustard Bäncke 200 g gl | Moustard FDB 200 g gl | Tomato Ketchup Heinz 340 g btl. | Champignon Soup Unox can | Champignon Soup Knorr bag | Cookies Kjeldsen, mix 250 g | Bisquits Oxford Marie 200 g | Bisquits Marie no.1 200 g | Choco Bisquits Chokofryd 375 g | Potato Chips DDS bag 100 g | Potato Chips FDB bag 100 g | Baby Food, Juice Nestlé 0,2 l | Baby Food, Canned Fruit Nestlé 3 mdr. gl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | | | | | | | | | | | | | | | | | |
| | MIN | | | | | | | | | | | | | | | | | |
| | WAM | | | | | | | | | | | | | | | | | |
| B. Town Centers, City Core. | MAX | | 2.95 | 3.45 | | 3.95 | | 5.35 | 6.45 | 4.30 | 3.95 | | 2.65 | 7.55 | 2.78 | | 4.35 | 3.69 |
| | MIN | | 1.80 | 2.80 | | 3.25 | | 3.35 | 3.95 | 3.55 | 2.95 | | 1.98 | 5.85 | 2.10 | | 3.65 | 1.95 |
| | WAM | | 2.49 | 3.13 | | 3.66 | | 4.80 | 5.53 | 3.93 | 3.20 | | 2.41 | 6.97 | 2.54 | | 3.99 | 2.40 |
| C. Town Centers, Local Shops. | MAX | | 3.00 | 3.65 | | 4.35 | | 5.70 | 6.45 | 4.68 | 3.25 | | 2.70 | 7.50 | 2.85 | | 4.15 | 2.69 |
| | MIN | | 2.50 | 3.25 | | 3.60 | | 5.10 | 5.95 | 3.55 | 2.95 | | 2.55 | 5.55 | 1.98 | | 2.95 | 2.30 |
| | WAM | | 2.75 | 3.51 | | 3.87 | | 5.33 | 6.18 | 3.98 | 3.10 | | 2.62 | 6.82 | 2.58 | | 3.64 | 2.52 |
| D. Suburban Areas, Shopping Areas. | MAX | | 3.00 | 3.70 | | 4.10 | | 5.35 | 6.45 | 3.98 | . | | 2.70 | 7.55 | 2.85 | | 3.95 | 2.70 |
| | MIN | | 1.95 | 3.30 | | 3.10 | | 4.95 | 5.30 | 3.55 | . | | 2.48 | 4.98 | 2.55 | | 3.00 | 1.95 |
| | WAM | | 2.56 | 3.49 | | 3.60 | | 5.11 | 6.00 | 3.66 | . | | 2.58 | 6.63 | 2.63 | | 3.55 | 2.49 |
| E. Surburban Areas, Local Shops. | MAX | | 3.20 | 3.90 | | 4.08 | | 6.35 | 6.65 | 4.90 | 4.95 | | 2.75 | 7.85 | 2.85 | | 4.15 | 2.85 |
| | MIN | | 2.25 | 2.50 | | 3.55 | | 5.25 | 6.50 | 3.55 | 2.75 | | 2.35 | 7.50 | 2.70 | | 3.85 | 2.55 |
| | WAM | | 2.88 | 3.53 | | 3.85 | | 5.58 | 6.58 | 4.40 | 4.15 | | 2.59 | 7.59 | 2.77 | | 3.96 | 2.65 |
| F. Shopping Centers | MAX | | 3.00 | 4.15 | | 4.00 | | 5.65 | 6.60 | 4.75 | 4.35 | | 2.76 | 7.60 | 2.85 | | 4.15 | 2.60 |
| | MIN | | 2.25 | 2.45 | | 2.65 | | 4.65 | 4.65 | 2.65 | 2.95 | | 1.58 | 5.45 | 2.48 | | 2.95 | 1.95 |
| | WAM | | 2.62 | 3.31 | | 3.47 | | 5.17 | 5.91 | 3.90 | 3.23 | | 2.36 | 6.50 | 2.65 | | 3.53 | 2.32 |

## First Price Survey in Denmark, January 1976 in Århus and Odense
## - Sales Point Category by Location -

| Location \ Product | | Strawberry Marmelade Fenger 450 g | Strawberry Marmelade Dronningholm 450 g | Tea Bags Medova 25 p.c. | Premixed Cacao Nes quick 400 g | Instant Coffee Nes Café 200 g | Vac. Pack Coffee Ali 500 g | Vac. Pack Coffee Blå Cirkel 500 g | Table Margarine Otto Mønsted 500 g | Table Margarine Alfa 500 g | Table Margarine FDB 500 g | Cream Powder Coffee Mate 325 g | Camenthert Cheese Høng 150 g | Danablue Cheese Rosenborg 100 g | Frozen Peas Danmark 380 g | Frozen Peas Danefrost 250 g | Icecream Vanillia Eventyr 1 l. | Chocolate Toms Guldbarre 30 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | | | | | | | | | | | | | | | | | |
| | MIN | | | | | | | | | | | | | | | | | |
| | WAM | | | | | | | | | | | | | | | | | |
| B. Town Centers, City Core. | MAX | 5.95 | 11.15 | 4.95 | 12.20 | 27.95 | 14.95 | | 3.93 | 3.85 | | 14.95 | 5.35 | 5.00 | 6.95 | | 8.85 | 1.65 |
| | MIN | 5.50 | 5.95 | 3.75 | 11.45 | 21.95 | 11.95 | | 2.65 | 3.65 | | 11.20 | 5.35 | 2.85 | 5.70 | | 7.75 | 1.10 |
| | WAM | 7.73 | 8.12 | 4.57 | 11.83 | 25.97 | 13.75 | | 3.45 | 3.73 | | 13.56 | 5.35 | 3.93 | 6.01 | | 8.12 | 1.28 |
| C. Town Centers, Local Shops. | MAX | 6.45 | 9.15 | 5.10 | 12.25 | 29.95 | 15.95 | | 4.15 | 4.15 | | 14.00 | 5.50 | 5.00 | 7.35 | | 8.95 | 1.25 |
| | MIN | 5.60 | 7.75 | 4.50 | 8.98 | 23.48 | 11.98 | | 2.50 | 3.65 | | 11.65 | 5.35 | 3.25 | 5.23 | | 7.75 | 0.99 |
| | WAM | 6.03 | 8.57 | 4.77 | 11.02 | 27.48 | 14.21 | | 3.61 | 3.84 | | 12.87 | 5.38 | 4.09 | 6.49 | | 8.15 | 1.20 |
| D. Suburban Areas, Shopping Areas. | MAX | 5.95 | 9.45 | 4.95 | 12.95 | 29.45 | 17.35 | | 3.80 | 3.80 | | 14.45 | 5.65 | 5.00 | 3.95 | | 7.75 | 1.25 |
| | MIN | 5.45 | 7.65 | 3.95 | 8.95 | 24.75 | 13.95 | | 2.82 | 3.22 | | 10.48 | 5.35 | 3.25 | 3.95 | | 6.75 | 1.00 |
| | WAM | 5.76 | 8.60 | 4.50 | 11.58 | 27.23 | 15.73 | | 3.56 | 3.66 | | 12.32 | 5.41 | 4.19 | 3.95 | | 7.42 | 1.18 |
| E. Surburban Areas, Local Shops. | MAX | 6.25 | 9.48 | 5.40 | 13.15 | 31.55 | 16.85 | | 4.05 | 4.05 | | 15.00 | 5.85 | 3.50 | 7.20 | | 7.75 | 1.25 |
| | MIN | 5.60 | 6.85 | 4.90 | 9.95 | 28.35 | 13.95 | | 2.95 | 3.78 | | 12.30 | 5.30 | 3.25 | 4.95 | | 7.75 | 1.15 |
| | WAM | 5.95 | 8.38 | 5.16 | 11.74 | 29.69 | 15.72 | | 3.79 | 3.90 | | 14.15 | 5.46 | 3.42 | 6.03 | | 7.75 | 1.21 |
| F. Shopping Centers | MAX | 6.00 | 9.15 | 5.35 | 12.25 | 31.85 | 15.95 | | 3.95 | 3.95 | | 14.45 | 5.35 | 3.95 | 8.10 | | 7.75 | 1.65 |
| | MIN | 4.95 | 5.95 | 3.95 | 9.95 | 19.95 | 12.95 | | 2.65 | 3.29 | | 7.95 | 4.90 | 2.75 | 3.90 | | 7.30 | 0.90 |
| | WAM | 5.52 | 8.04 | 4.77 | 11.53 | 26.64 | 14.66 | | 3.47 | 3.69 | | 12.39 | 5.27 | 3.25 | 6.63 | | 7.61 | 1.18 |

# First Price Survey in Denmark, January 1976 in Århus and Odense

## - Sales Point Category by Location -

| Product<br>Location | | Chewring Gum Stimorol 1o pieces | Soda Water Fanta o,25 l | Cola Coca Cola o,25 l | Soda Water Carlsberg Grape btl. | Beer Carlsberg Hof btl. | Beer Tuborg Guld btl. | Beer Faxe Fad can |
|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | | | | | | | |
| | MIN | | | | | | | |
| | WAM | | | | | | | |
| B. Town Centers, City Core. | MAX | 1.oo | 1.2o | 1.2o | 1.2o | 2.4o | 3.1o | 3.96 |
| | MIN | 1.oo | 1.o8 | 1.o8 | 1.o8 | 2.22 | 2.82 | 3.68 |
| | WAM | 1.oo | 1.16 | 1.16 | 1.16 | 2.38 | 2.95 | 3.83 |
| C. Town Centers, Local Shops. | MAX | 1.oo | 1.2o | 1.2o | 1.2o | 2.42 | 3.35 | 3.95 |
| | MIN | 1.oo | 1.1o | 1.1o | 1.1o | 2.32 | 2.77 | 3.79 |
| | WAM | 1.oo | 1.17 | 1.17 | 1.17 | 2.4o | 3.o4 | 3.89 |
| D. Suburban Areas, Shopping Areas. | MAX | 1.oo | 1.23 | 1.23 | 1.23 | 2.43 | 3.25 | 4.1o |
| | MIN | o.75 | 1.11 | 1.11 | 1.11 | 2.34 | 2.84 | 3.7o |
| | WAM | o.96 | 1.17 | 1.17 | 1.17 | 2.4o | 3.o4 | 3.94 |
| E. Surburban Areas, Local Shops. | MAX | 1.oo | 1.23 | 1.23 | 1.23 | 2.43 | 3.57 | 4.1o |
| | MIN | 1.oo | 1.1o | 1.1o | 1.1o | 2.38 | 2.96 | 3.83 |
| | WAM | 1.oo | 1.18 | 1.18 | 1.18 | 2.41 | 3.o9 | 3.96 |
| F. Shopping Centers | MAX | 1.oo | 1.18 | 1.18 | 1.18 | 2.5o | 3.3o | 3.95 |
| | MIN | o.9o | 1.o4 | 1.o4 | 1.o4 | 2.18 | 2.72 | 3.57 |
| | WAM | o.99 | 1.13 | 1.13 | 1.13 | 2.36 | 2.93 | 3.83 |

## Second Price Survey in Denmark, July 1976, in Århus, Odense and Copenhagen

### - Sales Point Category by Location -

| Location | Product | Table Salt Dansk salt 1 kg | Wheat Flour Gluten 1 kg | Wheat Flour Safir 1 kg | Rye Flakes Ota Solgryn 1 kg | Corn Flakes Kelloggs Snap 1 kg | Table Sugar Dan sukker 1 kg | Rice Ris-fix, 2 bags | Rice Langkornet, 2 bags | Benfri Sild 555 pikant 65 g | Benfri Sild Winner 65 g | Gaffelbidder 555 Liflig 65 g | Gaffelbidder Winner 65 g | Canned Peas with Carrots Beauvais, mellemdåse | Canned Peas with Carrots Winner, mellemdåse | Canned Ananas Del Monte 836 g | Canned Pig Shoulder Jaka 454 g | Canned Pig Shoulder Winner 454 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | 1,30 | 3,85 | | 6,75 | 4,75 | 4,30 | 3,95 | | 6,38 | | 6,15 | | 4,85 | | 7,08 | - | |
| | MIN | 0,90 | 3,30 | | 6,18 | 4,68 | 3,95 | 3,70 | | 4,95 | | 5,75 | | 3,48 | | 6,25 | - | |
| | WAM | 1,06 | 3,50 | | 6,38 | 4,72 | 4,08 | 3,85 | | 5,76 | | 5,95 | | 4,28 | | 6,77 | - | |
| B. Town Centers, City Core. | MAX | 1,30 | 3,95 | | 6,25 | 4,95 | 4,05 | 3,95 | | 6,38 | | 6,38 | | 6,85 | | 7,45 | 16,98 | |
| | MIN | 0,90 | 3,10 | | 5,75 | 4,45 | 3,85 | 2,45 | | 3,98 | | 5,45 | | 4,15 | | 6,45 | 11,95 | |
| | WAM | 0,99 | 3,29 | | 6,08 | 4,64 | 3,94 | 3,49 | | 5,72 | | 5,81 | | 4,96 | | 6,81 | 13,46 | |
| C. Town Centers, Local Shops. | MAX | 1,30 | 3,40 | | 6,25 | 4,75 | 4,10 | 4,00 | | 6,38 | | 6,38 | | 6,30 | | 6,98 | 16,60 | |
| | MIN | 0,90 | 3,15 | | 5,85 | 4,45 | 3,60 | 2,45 | | 5,40 | | 5,40 | | 4,65 | | 6,45 | 11,48 | |
| | WAM | 1,01 | 3,24 | | 6,13 | 4,70 | 3,93 | 3,30 | | 5,93 | | 5,73 | | 5,24 | | 6,81 | 13,63 | |
| D. Suburban Areas, Shopping Areas. | MAX | 1,25 | 3,50 | | 6,28 | 5,15 | 3,95 | 3,98 | | 5,95 | | 6,00 | | 7,10 | | 6,98 | 16,45 | |
| | MIN | 0,90 | 3,15 | | 5,65 | 4,70 | 3,50 | 2,45 | | 5,50 | | 5,45 | | 4,35 | | 5,35 | 10,95 | |
| | WAM | 1,01 | 3,28 | | 6,10 | 4,83 | 3,83 | 3,18 | | 5,78 | | 5,64 | | 5,29 | | 6,62 | 14,29 | |
| E. Surburban Areas, Local Shops. | MAX | 1,05 | 3,38 | | 6,25 | 4,95 | 4,05 | 4,00 | | 8,10 | | 8,40 | | 5,75 | | 7,15 | 16,95 | |
| | MIN | 0,95 | 3,25 | | 4,98 | 4,69 | 3,60 | 3,65 | | 5,95 | | 5,80 | | 4,95 | | 6,30 | 13,35 | |
| | WAM | 0,99 | 3,32 | | 5,99 | 4,25 | 3,85 | 3,86 | | 6,47 | | 6,50 | | 5,40 | | 6,68 | 14,30 | |
| F. Shopping Centers | MAX | 1,10 | 3,15 | | 6,25 | 4,95 | 4,10 | 3,95 | | 9,25 | | 6,25 | | 5,68 | | 6,90 | 10,95 | |
| | MIN | 0,85 | 3,00 | | 4,95 | 4,15 | 3,55 | 3,10 | | 5,25 | | 5,25 | | 3,25 | | 5,95 | 10,95 | |
| | WAM | 0,97 | 3,11 | | 5,91 | 4,66 | 3,85 | 3,54 | | 6,45 | | 5,85 | | 4,88 | | 6,49 | 10,95 | |

## Second Price Survey in Denmark, July 1976, in Århus, Odense and Copenhagen

## - Sales Point Category by Location -

| Location \ Product | | Boullion Cubes Maggi 12 cubes | Mayonnaise Bäncke 150 g | Mayonnaise FDB 150 g | Moustard Bäncke 200 g gl | Moustard FDB 200 g gl | Tomato Ketchup Heinz 340 g btl. | Champignon Soup Unox can | Champignon Soup Knorr bag | Cookies Kjeldsen, mix 250 g | Bisquits Oxford Marie 200 g | Bisquits Marie no.1 200 g | Choco Bisquits Chokofryd 375 g | Potato Chips DDS bag 100 g | Potato Chips FDB bag 100 g | Baby Food, Juice Nestlé 0,2 l | Baby Food, Canned Fruit Nestlé 3 mdr. gl. | Strawberry Marmelade Fenger 450 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | 3,45 | 3,65 | | 4,10 | | 5,15 | - | 5,40 | 3,45 | 2,75 | | 7,55 | 2,70 | | 4,65 | 2,80 | 6,25 |
| | MIN | 2,70 | 3,50 | | 3,85 | | 5,05 | - | 4,75 | 3,45 | 2,65 | | 4,98 | 2,45 | | 3,60 | 2,65 | 6,25 |
| | WAM | 3,01 | 3,58 | | 3,97 | | 5,10 | - | 5,07 | 3,45 | 3,70 | | 6,66 | 2,60 | | 4,13 | 2,73 | 6,25 |
| B. Town Centers, City Core. | MAX | 3,25 | 3,65 | | 3,65 | | 5,35 | 6,95 | 5,40 | 3,95 | 2,85 | | 7,90 | 2,98 | | 4,65 | 2,98 | 6,95 |
| | MIN | 2,60 | 3,20 | | 3,25 | | 4,70 | 4,15 | 4,95 | 3,95 | 2,25 | | 5,95 | 2,55 | | 3,75 | 2,55 | 5,50 |
| | WAM | 2,85 | 3,37 | | 3,53 | | 5,19 | 6,04 | 5,10 | 3,95 | 2,71 | | 7,39 | 2,67 | | 4,05 | 2,74 | 6,25 |
| C. Town Centers, Local Shops. | MAX | 3,25 | 3,78 | | 4,25 | | 5,60 | 6,50 | 4,95 | 4,95 | 2,80 | | 7,90 | 2,85 | | 4,40 | 3,35 | 6,70 |
| | MIN | 2,59 | 3,15 | | 3,50 | | 5,10 | 6,15 | 4,05 | 3,95 | 2,10 | | 7,35 | 1,98 | | 2,85 | 1,98 | 5,50 |
| | WAM | 2,92 | 3,43 | | 3,73 | | 5,30 | 6,39 | 4,70 | 4,62 | 2,68 | | 7,69 | 2,59 | | 3,97 | 2,68 | 6,14 |
| D. Suburban Areas, Shopping Areas. | MAX | 3,00 | 3,68 | | 3,50 | | 5,35 | 6,75 | 4,95 | 3,95 | 2,85 | | 7,85 | 2,65 | | 4,35 | 2,85 | 6,25 |
| | MIN | 2,55 | 3,10 | | 3,25 | | 4,75 | 5,65 | 4,35 | 3,95 | 2,10 | | 5,85 | 2,65 | | 3,00 | 2,35 | 5,80 |
| | WAM | 2,87 | 3,40 | | 3,41 | | 5,04 | 6,26 | 4,59 | 3,95 | 2,60 | | 6,86 | 2,65 | | 3,97 | 2,68 | 6,00 |
| E. Surburban Areas, Local Shops. | MAX | 3,45 | 3,95 | | 3,98 | | 6,35 | 6,98 | 5,15 | 3,95 | 2,90 | | 7,90 | 2,88 | | 4,45 | 2,90 | 7,48 |
| | MIN | 2,88 | 3,50 | | 3,30 | | 3,95 | 6,98 | 4,68 | 3,95 | 2,49 | | 7,65 | 2,70 | | 3,85 | 2,50 | 5,75 |
| | WAM | 3,08 | 3,69 | | 3,64 | | 5,49 | 6,98 | 4,94 | 3,95 | 2,74 | | 7,78 | 2,81 | | 4,15 | 2,71 | 6,67 |
| F. Shopping Centers | MAX | 3,75 | 3,78 | | 3,65 | | 5,10 | 6,60 | 4,70 | 4,95 | 2,88 | | 7,95 | 2,95 | | 4,85 | 2,95 | 6,25 |
| | MIN | 2,65 | 2,95 | | 3,30 | | 4,76 | 5,90 | 2,95 | 3,75 | 2,50 | | 6,35 | 2,40 | | 3,35 | 2,35 | 5,75 |
| | WAM | 2,94 | 3,26 | | 3,47 | | 4,98 | 6,25 | 4,05 | 4,22 | 2,74 | | 7,09 | 2,74 | | 4,03 | 2,61 | 5,98 |

## Second Price Survey in Denmark, July 1976, in Århus, Odense and Copenhagen

### - Sales Point Category by Location -

| Product / Location | | Strawberry Marmelade Dronningholm 450 g | Tea Bags Medova 25 p.c. | Premixed Cacao Nes quick 400 g | Instant Coffee Nes Café 200 g | Vac. Pack Coffee Ali 500 g | Vac. Pack Coffee Blå Cirkel 500 g | Table Margarine Otto Mønsted 500 g | Table Margarine Alfa 500 g | Table Margarine FDB 500 g | Cream Powder Coffee Mate 325 g | Camentbert Cheese Høng 150 g | Danablue Cheese Rosenborg 100 g | Frozen Peas Danmark 380 g | Frozen Peas Danefrost 250 g | Icecream Vanillia Eventyr 1 l. | Chocolate Toms Guldbarre 30 g | Chewring Gum Stimorol 1o pieces |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | 9,85 | 5,48 | 11,95 | 32,85 | 13,95 | | 4,18 | 4,18 | | 11,95 | 3,40 | 4,90 | 7,95 | | 5,45 | 1,25 | 1,00 |
| | MIN | 8,25 | 4,60 | 9,95 | 26,65 | 13,95 | | 3,63 | 3,68 | | 8,75 | 2,95 | 3,25 | 7,20 | | 5,45 | 1,18 | 1,00 |
| | WAM | 9,03 | 5,02 | 10,95 | 30,77 | 13,95 | | 3,83 | 3,93 | | 10,55 | 3,18 | 4,27 | 7,58 | | 5,45 | 1,22 | 1,00 |
| B. Town Centers, City Core. | MAX | 11,75 | 5,45 | 12,25 | 31,80 | 16,95 | | 4,30 | 4,05 | | 14,45 | 3,50 | 4,65 | 6,95 | | 8,95 | 1,25 | 1,00 |
| | MIN | 7,75 | 3,95 | 11,14 | 25,95 | 13,95 | | 3,75 | 2,95 | | 10,95 | 2,95 | 3,25 | 4,25 | | 7,75 | 0,95 | 1,00 |
| | WAM | 9,02 | 4,72 | 9,95 | 29,21 | 15,00 | | 3,98 | 3,68 | | 12,75 | 3,24 | 4,18 | 5,41 | | 8,15 | 1,19 | 1,00 |
| C. Town Centers, Local Shops. | MAX | 9,95 | 5,45 | 12,95 | 34,28 | 17,95 | | 4,18 | 4,20 | | 14,45 | 3,50 | 4,75 | 5,70 | | 8,50 | 1,25 | 1,00 |
| | MIN | 7,75 | 4,25 | 9,95 | 24,48 | 14,95 | | 2,95 | 2,60 | | 10,95 | 2,95 | 4,65 | 4,25 | | 5,95 | 1,15 | 1,00 |
| | WAM | 8,86 | 4,94 | 11,49 | 29,80 | 15,95 | | 3,69 | 3,36 | | 12,58 | 3,36 | 4,73 | 4,37 | | 7,67 | 1,24 | 1,00 |
| D. Suburban Areas, Shopping Areas. | MAX | 9,48 | 4,95 | 12,25 | 32,25 | 16,65 | | 3,80 | 3,80 | | 14,45 | 3,65 | 4,65 | 5,65 | | 9,15 | 1,25 | 1,00 |
| | MIN | 8,35 | 3,95 | 9,95 | 23,75 | 11,95 | | 3,60 | 2,60 | | 8,08 | 3,40 | 3,25 | 4,25 | | 5,10 | 1,00 | 1,00 |
| | WAM | 8,95 | 4,64 | 11,33 | 29,15 | 14,85 | | 3,75 | 3,36 | | 11,99 | 3,51 | 4,30 | 4,74 | | 7,38 | 1,18 | 1,00 |
| E. Surburban Areas, Local Shops. | MAX | 9,48 | 5,50 | 12,70 | 34,38 | 17,95 | | 4,35 | 4,35 | | 15,65 | 4,20 | 5,25 | 7,20 | | 7,75 | 1,25 | 1,00 |
| | MIN | 8,25 | 3,95 | 10,95 | 30,48 | 13,95 | | 2,25 | 2,25 | | 10,15 | 3,40 | 3,95 | 5,25 | | 7,75 | 1,00 | 1,00 |
| | WAM | 8,76 | 4,74 | 12,13 | 32,05 | 15,99 | | 3,75 | 3,81 | | 13,40 | 3,57 | 4,74 | 6,23 | | 7,75 | 1,19 | 1,00 |
| F. Shopping Centers | MAX | 9,15 | 4,98 | 12,59 | 32,25 | 15,50 | | 3,95 | 4,05 | | 14,65 | 3,50 | 5,10 | 7,40 | | 7,75 | 1,25 | 1,00 |
| | MIN | 6,85 | 4,25 | 8,95 | 26,95 | 12,95 | | 2,75 | 3,65 | | 13,60 | 2,95 | 3,75 | 5,35 | | 7,30 | 0,90 | 0,90 |
| | WAM | 8,26 | 4,73 | 11,25 | 30,83 | 14, 59 | | 3,60 | 3,87 | | 14,27 | 3,29 | 4,66 | 5,95 | | 7,64 | 1,13 | 0,99 |

# Second Price Survey in Denmark, July 1976, in Århus, Odense and Copenhagen

## - Sales Point Category by Location -

| Product<br>Location | | Soda Water Fanta o,25 l | Cola Coca Cola o,25 l | Soda Water Carlsberg Grape btl. | Beer Carlsberg Hof btl. | Beer Tuborg Guld btl. | Beer Faxe Fad can | Rye Flakes Kelloggs Havre Mix 500 g | Frost Flakes Kelloggs 5oo g | Cereals Kelloggs Special K 200 g | Spagetti Gluten 230 g | Spagetti Møllerens (Kelloggs) 400 g | Spagetti Zambetti 250 g | Spagetti Dish, Tomato Sauce Kraft: Miracoli, 4-5 | Spagetti Dish, Sauce Italienne Kraft: Miracoli, 2-3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | 1,62 | 1,62 | 1,62 | 2,78 | 3,68 | 4,05 | 7,05 | 8,15 | 6,20 | 3,10 | 3,95 | 3,25 | 10,58 | 8,95 |
| | MIN | 1,28 | 1,28 | 1,28 | 2,46 | 2,97 | 4,00 | 7,05 | 7,18 | 6,05 | 2,50 | 3,95 | 3,25 | 10,58 | 8,95 |
| | WAM | 1,45 | 1,45 | 1,45 | 2,62 | 2,33 | 4,03 | 7,05 | 7,63 | 6,13 | 2,78 | 3,95 | 3,25 | 10,58 | 8,95 |
| B. Town Centers, City Core. | MAX | 1,25 | 1,25 | 1,25 | 2,81 | 3,40 | 4,00 | 7,28 | 7,35 | 6,20 | 3,20 | 4,85 | 3,25 | 9,95 | 9,35 |
| | MIN | 1,16 | 1,16 | 1,16 | 2,39 | 2,98 | 3,84 | 6,65 | 6,30 | 5,50 | 2,95 | 3,90 | 2,95 | 9,60 | 7,75 |
| | WAM | 1,20 | 1,20 | 1,20 | 2,48 | 3,10 | 3,92 | 6,94 | 6,94 | 5,80 | 3,04 | 4,36 | 3,18 | 9,89 | 8,58 |
| C. Town Centers, Local Shops. | MAX | 1,55 | 1,55 | 1,55 | 2,85 | 3,30 | 4,05 | 8,10 | 8,15 | 6,10 | 3,38 | 7,65 | 2,95 | 10,38 | 8,95 |
| | MIN | 1,15 | 1,15 | 1,15 | 2,40 | 2,97 | 3,84 | 6,75 | 6,80 | 5,50 | 2,95 | 3,90 | 2,95 | 9,85 | 7,54 |
| | WAM | 1,25 | 1,25 | 1,25 | 2,49 | 3,11 | 3,96 | 7,19 | 7,51 | 5,92 | 3,01 | 5,40 | 2,95 | 10,03 | 8,25 |
| D. Suburban Areas, Shopping Areas. | MAX | 1,48 | 1,48 | 1,48 | 2,88 | 3,53 | 4,10 | 7,45 | 8,00 | 6,10 | 2,95 | 4,65 | 2,95 | 11,28 | 9,48 |
| | MIN | 1,16 | 1,16 | 1,16 | 2,40 | 2,95 | 3,80 | 6,70 | 7,25 | 5,90 | 2,55 | 4,65 | 2,95 | 8,95 | 5,90 |
| | WAM | 1,26 | 1,26 | 1,26 | 2,54 | 3,19 | 3,99 | 6,94 | 7,46 | 6,03 | 2,88 | 4,65 | 2,95 | 9,87 | 7,54 |
| E. Surburban Areas, Local Shops. | MAX | 1,25 | 1,25 | 1,25 | 2,50 | 3,45 | 4,15 | 8,10 | 8,15 | 8,10 | 3,38 | 4,73 | - | 11,28 | 10,45 |
| | MIN | 1,15 | 1,15 | 1,15 | 2,43 | 2,98 | 3,90 | 6,70 | 7,18 | 6,20 | 2,95 | 3,95 | - | 9,95 | 5,75 |
| | WAM | 1,21 | 1,21 | 1,21 | 2,47 | 3,12 | 4,03 | 7,36 | 7,72 | 6,66 | 3,22 | 4,22 | - | 10,69 | 8,38 |
| F. Shopping Centers | MAX | 1,22 | 1,22 | 1,22 | 2,81 | 3,35 | 4,00 | 7,45 | 8,00 | 6,35 | 3,38 | 4,95 | 3,25 | 11,28 | 9,15 |
| | MIN | 1,07 | 1,07 | 1,o7 | 2,30 | 2,82 | 3,78 | 6,45 | 6,65 | 5,65 | 2,75 | 3,90 | 2,85 | 6,75 | 4,95 |
| | WAM | 1,19 | 1,19 | 1,19 | 2,47 | 3,03 | 3,93 | 6,90 | 7,17 | 6,02 | 3,05 | 4,28 | 2,98 | 9,70 | 7,54 |

## Second Price Survey in Denmark, July 1976, in Århus, Odense and Copenhagen

## - Sales Point Category by Location -

| Product<br>Location | | Brie Kohave 200 g | Parmesam Cheese 40 g | Cream Cheese Castello Bouquet 90 g | Cheese Tartare 80 g | Cheese Høng Ambassadeur 450 g | Frozen Fish 10 sticks | Frozen Fish Danefrost 10 sticks | Icecream Vanillia Frisko 1 l. | Cream Dessert Frisko 1 l. | Cream Dessert Danefrost 1 l. | Cola Pepsi Cola o,25 l. | Cola Jolly Cola btl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | MAX | 5,95 | - | 5,10 | 4,95 | 12,65 | 8,55 | | | 14,00 | | 1,62 | 1,62 |
| | MIN | 5,95 | - | 4,35 | 4,60 | 12,60 | 8,50 | | | 14,00 | | 1,28 | 1,28 |
| | WAM | 5,95 | - | 4,73 | 4,78 | 12,63 | 8,53 | | | 14,00 | | 1,45 | 1,45 |
| B. Town Centers, City Core. | MAX | 6,60 | 3,45 | 4,30 | 4,55 | 12,85 | 8,95 | | | 9,95 | | 1,25 | 1,25 |
| | MIN | 6,50 | 2,95 | 4,15 | 4,25 | 12,65 | 6,00 | | | 8,00 | | 1,16 | 1,16 |
| | WAM | 6,58 | 3,08 | 4,24 | 4,49 | 12,80 | 7,71 | | | 8,88 | | 1,20 | 1,20 |
| C. Town Centers, Local Shops. | MAX | 6,60 | 3,35 | 4,30 | 4,55 | 12,85 | 9,35 | | | 8,95 | | 1,55 | 1,55 |
| | MIN | 6,50 | 3,15 | 4,15 | 3,95 | 12,60 | 8,00 | | | 8,00 | | 1,15 | 1,15 |
| | WAM | 6,57 | 3,25 | 4,21 | 4,48 | 12,69 | 8,69 | | | 8,39 | | 1,25 | 1,25 |
| D. Suburban Areas, Shopping Areas. | MAX | 6,60 | 3,35 | 4,40 | 4,55 | 12,85 | 8,85 | | | 9,45 | | 1,48 | 1,48 |
| | MIN | 6,60 | 3,15 | 4,10 | 4,55 | 12,85 | 6,95 | | | 6,90 | | 1,16 | 1,16 |
| | WAM | 6,60 | 3,25 | 4,28 | 4,55 | 12,85 | 7,95 | | | 8,24 | | 1,26 | 1,26 |
| E. Surburban Areas, Local Shops. | MAX | 7,95 | 3,25 | 4,40 | 5,00 | 12,85 | 9,95 | | | 9,95 | | 1,25 | 1,25 |
| | MIN | 6,60 | 3,15 | 4,15 | 4,55 | 12,65 | 8,50 | | | 8,70 | | 1,15 | 1,15 |
| | WAM | 6,94 | 3,20 | 4,26 | 4,64 | 12,75 | 9,09 | | | 9,37 | | 1,21 | 1,21 |
| F. Shopping Centers | MAX | 6,95 | 3,35 | 4,40 | 5,00 | 12,85 | 9,45 | | | 8,95 | | 1,22 | 1,22 |
| | MIN | 5,60 | 2,95 | 4,10 | 3,85 | 11,85 | 7,25 | | | 6,95 | | 1,07 | 1,07 |
| | WAM | 6,52 | 3,18 | 4,24 | 4,48 | 12,62 | 8,40 | | | 8,15 | | 1,19 | 1,19 |

## Second Price Survey in Denmark, July 1976 in Århus, Odense and Copenhagen
## - Sales Point Category by Location, Variations January - July -

| Location \ Product | | Table Salt Dansk salt 1 kg | Wheat Flour Gluten 1 kg | Wheat Flour Safir 1 kg | Rye Flakes Ota Solgryn 1 kg | Corn Flakes Kelloggs Snap 1 kg | Table Sugar Dan sukker 1 kg | Rice Ris-fix, 2 bags | Rice Langkornet, 2 bags | Benfri Sild 555 pikant 65 g | Benfri Sild Winner 65 g | Gaffelbidder 555 Liflig 65 g | Gaffelbidder Winner 65 g | Canned Peas with Carrots Beauvais, mellemdåse | Canned Peas with Carrots Winner, mellemdåse | Canned Ananas Del Monte 836 g | Canned Pig Shoulder Jaka 454 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | WAM | | | | | | | | | | | | | | | | |
| | VAR | | | | | | | | | | | | | | | | |
| B. Town Centers, City Core. | WAM | o.99 | 3.29 | | 6.o8 | 4.64 | 3.94 | 3.49 | | 5.72 | | 5.81 | | 4.96 | | 6.81 | 13.46 |
| | VAR | +5.31 | +7.86 | | +7.99 | +1.o8 | +8.53 | -5.68 | | -o.17 | | +3.57 | | -2.55 | | -4.76 | - 4.13 |
| C. Town Centers, Local Shops. | WAM | 1.o1 | 3.24 | | 6.13 | 4.7o | 3.93 | 3.3o | | 5.93 | | 5.73 | | 5.24 | | 6.81 | 13.63 |
| | VAR | +2.o2 | +o.62 | | +3.54 | +o.86 | +7.67 | -19.73 | | +3.49 | | +9.98 | | -4.55 | | -6.58 | - o.15 |
| D. Suburban Areas, Shopping Areas. | WAM | 1.o1 | 3.28 | | 6.1o | 4.83 | 3.83 | 3.18 | | 5.78 | | 5.64 | | 5.29 | | 6.62 | 14.29 |
| | VAR | +2.o2 | +o.61 | | +3.21 | +2.55 | +5.51 | -18.88 | | +1.94 | | +o.53 | | +2.72 | | -o.45 | + 8.5o |
| E. Suburban Areas, Local Shops. | WAM | o.99 | 3.32 | | 5.99 | 4.25 | 3.85 | 3.86 | | 6.47 | | 6.5o | | 5.4o | | 6.68 | 14.3o |
| | VAR | ± o | +3.42 | | +1.18 | -7.61 | +5.19 | -1.o3 | | +7.3o | | +8.7o | | -16.28 | | -6.57 | - 2.92 |
| F. Shopping Centers | WAM | o.97 | 3.11 | | 5.91 | 4.66 | 3.85 | 3.54 | | 6.45 | | 5.85 | | 4.88 | | 6.49 | 1o.95 |
| | VAR | ± o | -1.27 | | +5.53 | +2.42 | +7.54 | -5.35 | | +17.49 | | +4.65 | | ± o | | -3.42 | -21.96 |

# Second Price Survey in Denmark, July 1976 in Århus, Odense and Copenhagen

## - Sales Point Category by Location, Variations January - July -

| Location \ Product | | Canned Pig Shoulder Winner 454 g | Boullion Cubes Maggi 12 cubes | Mayonnaise Bäncke 150 g | Mayonnaise FDB 150 g | Moustard Bäncke 200 g gl | Moustard FDB 200 g gl | Tomato Ketchup Heinz 340 g btl. | Champignon Soup Unox can | Champignon Soup Knorr bag | Cookies Kjeldsen, mix 250 g | Bisquits Oxford Marie 200 g | Bisquits Marie no.1 200 g | Choco Bisquits Chokofryd 375 g | Potato Chips DDS bag 100 g | Potato Chips FDB bag 100 g | Baby Food, Juice Nestlé 0,2 l |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | WAM | | | | | | | | | | | | | | | | |
| | VAR | | | | | | | | | | | | | | | | |
| B. Town Centers, City Core. | WAM | | 2.85 | 3.37 | | 3.53 | | 5.19 | 6.04 | 5.10 | 3.95 | 2.71 | | 7.39 | 2.67 | | 4.05 |
| | VAR | | +14.45 | +7.66 | | -3.55 | | +8.13 | +9.22 | +29.77 | +23.43 | +12.45 | | +6.02 | +5.12 | | +1.50 |
| C. Town Centers, Local Shops. | WAM | | 2.92 | 3.43 | | 3.73 | | 5.30 | 6.39 | 4.70 | 4.62 | 2.68 | | 7.69 | 2.59 | | 3.97 |
| | VAR | | +6.18 | -2.28 | | -3.62 | | -0.56 | +3.40 | +18.09 | +49.03 | +2.29 | | +12.76 | +0.39 | | +9.07 |
| D. Suburban Areas, Shopping Areas. | WAM | | 2.87 | 3.40 | | 3.41 | | 5.04 | 6.26 | 4.59 | 3.95 | 2.60 | | 6.86 | 2.65 | | 3.97 |
| | VAR | | +12.11 | -2.58 | | -3.28 | | -1.37 | +4.33 | +25.41 | . | +0.78 | | +3.47 | +0.76 | | +11.83 |
| E. Suburban Areas, Local Shops. | WAM | | 3.08 | 3.69 | | 3.64 | | 5.49 | 6.98 | 4.94 | 3.95 | 2.74 | | 7.78 | 2.81 | | 4.15 |
| | VAR | | +6.94 | +4.53 | | -5.45 | | -1.61 | +6.08 | +12.27 | -4.82 | +5.79 | | +2.50 | +1.44 | | +4.78 |
| F. Shopping Centers | WAM | | 2.94 | 3.26 | | 3.47 | | 4.98 | 6.25 | 4.05 | 4.22 | 2.74 | | 7.09 | 2.74 | | 4.03 |
| | VAR | | +12.21 | -1.51 | | ± 0 | | -3.68 | +5.75 | +3.84 | +30.65 | +16.10 | | +9.08 | +3.40 | | + 14.16 |

## Second Price Survey in Denmark, July 1976 in Århus, Odense and Copenhagen
## - Sales Point Category by Location, Variations January - July -

| Location / Product | | Baby Food, Canned Fruit Nestlé 3 mdr. gl. | Strawberry Marmelade Fenger 450 g | Strawberry Marmelade Dronningholm 450 g | Tea Bags Medova 25 p.c. | Premixed Cacao Nes quick 400 g | Instant Coffee Nes Café 200 g | Vac. Pack Coffee Ali 500 g | Vac. Pack Coffee Blå Cirkel 500 g | Table Margarine Otto Mønsted 500 g | Table Margarine Alfa 500 g | Table Margarine FDB 500 g | Cream Powder Coffee Mate 325 g | Camentbert Cheese Høng 150 g | Danablue Cheese Rosenborg 100 g | Frozen Peas Danmark 380 g | Frozen Peas Danefrost 250 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | WAM | | | | | | | | | | | | | | | | |
| | VAR | | | | | | | | | | | | | | | | |
| B. Town Centers, City Core. | WAM | 2.74 | 6.25 | 9.o2 | 4.72 | 9.95 | 29.21 | 15.oo | | 3.98 | 3.68 | | 12.75 | 3.24 | 4.18 | 5.41 | |
| | VAR | +14.17 | -19.15 | +11.o8 | +3.28 | -15.89 | +12.48 | +9.o9 | | +15.36 | -1.34 | | .7.97 | .39.44 | +6.36 | -1o.oo | |
| C. Town Centers, Local Shops. | WAM | 2.68 | 6.14 | 8.86 | 4.94 | 11.49 | 29.8o | 15.95 | | 3.69 | 3.36 | | 12.58 | 3.36 | 4.73 | 4.37 | |
| | VAR | +6.35 | +1.82 | +3.38 | +3.56 | +4.26 | +8.44 | +12.24 | | +2.22 | -12.5o | | -2.25 | -37.55 | +15.65 | -32.67 | |
| D. Suburban Areas, Shopping Areas. | WAM | 2.68 | 6.oo | 8.95 | 4.64 | 11.43 | 29.15 | 14.85 | | 3.75 | 3.36 | | 11.99 | 3.51 | 4.3o | 4.74 | |
| | VAR | +7.63 | +4.17 | +4.o9 | +3.11 | -1.3o | +7.o5 | -5.59 | | +5.34 | -8.2o | | -2.68 | -35.12 | +2.63 | +2o.oo | |
| E. Suburban Areas, Local Shops. | WAM | 2.71 | 6.67 | 8.76 | 4.74 | 12.13 | 32.o5 | 15.99 | | 3.75 | 3.81 | | 13.4o | 3.57 | 4.74 | 6.23 | |
| | VAR | +2.26 | +12.1o | +4.53 | -8.14 | +3.32 | +7.95 | +1.72 | | -1.o6 | -2.31 | | -5.3o | -34.62 | +38.6o | +3.32 | |
| F. Shopping Centers | WAM | 2.61 | 5.98 | 8.26 | 4.73 | 11.25 | 3o.83 | 14.59 | | 3.6o | 3.87 | | 14.27 | 3.29 | 4.66 | 5.95 | |
| | VAR | +12.5o | +8.33 | +2.74 | -o.84 | -2.43 | +15.73 | -o.48 | | +3.75 | +4.88 | | "15.17 | -37.57 | +43.38 | -11.o7 | |

# Second Price Survey in Denmark, July 1976 in Århus, Odense and Copenhagen
## - Sales Point Category by Location, Variations January - July -

| Product<br>Location | | Icecream Vanillia Eventyr 1 l. | Chocolate Toms Guldbarre 30 g | Chewring Gum Stimorol 1o pieces | Soda Water Fanta o,25 l | Cola Coca Cola o,25 l | Soda Water Carlsberg Grape btl. | Beer Carlsberg Hof btl. | Beer Tuborg Guld btl. | Beer Faxe Fad can |
|---|---|---|---|---|---|---|---|---|---|---|
| A. Capital City Core. | WAM | | | | | | | | | |
| | VAR | | | | | | | | | |
| B. Town Centers, City Core. | WAM | 8.15 | 1.19 | 1.oo | 1.2o | 1.2o | 1.2o | 2.48 | 3.1o | 3.92 |
| | VAR | +o.37 | -7.o3 | ± 0 | +3.45 | +3.45 | +3.45 | +4.2o | +5.o8 | +2.35 |
| C. Town Centers, Local Shops. | WAM | 7.67 | 1.24 | 1.oo | 1.25 | 1.25 | 1.25 | 2.49 | 3.11 | 3.96 |
| | VAR | -5.89 | +3.33 | ± 0 | +6.84 | +6.84 | +6.84 | +3.75 | +2.3o | +1.8o |
| D. Suburban Areas, Shopping Areas. | WAM | 7.38 | 1.18 | 1.oo | 1.26 | 1.26 | 1.26 | 2.54 | 3.19 | 3.99 |
| | VAR | -o.54 | ± 0 | +4.16 | +7.69 | +7.69 | +7.69 | +5.83 | +4.93 | +1.27 |
| E. Suburban Areas, Local Shops. | WAM | 7.75 | 1.19 | 1.oo | 1.21 | 1.21 | 1.21 | 2.47 | 3.12 | 4.o3 |
| | VAR | ± 0 | -1.65 | ± 0 | +2.54 | +2.54 | +2.54 | +2.49 | +o.97 | +1.77 |
| F. Shopping Centers | WAM | 7.64 | 1.13 | o.99 | 1.19 | 1.19 | 1.19 | 2.47 | 3.o3 | 3.93 |
| | VAR | +o.39 | -4.24 | ± 0 | +5.31 | +5.31 | +5.31 | +4.66 | +3.41 | +2.61 |

# IV Comments on the Findings of the two Surveys

## Differences in price level by location

In the following two tables one finds a comparison of the average price level in the 5 different types of location for the first and second price enquery respectively.

The comparison is carried through as a rank analysis of the average price level in the 5 areas for each of the products included in the price enquery.

The tabels summarize the number of cases for which an area have abtained a certain rank position. The rank position number 1 indicates the lowest average price level for a given product, 2 the next lowest and so on.

From the results of the first price survey one finds that Shopping Centers (F) have the lowest price level followed by Town Centers in the City Core (B). Local Shops in Suburban Areas (E) have the highest price level followed by Local Shops in Town Centers (C). Shopping Areas in Suburban Areas (D) have medium position with respect to price level.

From the second tabel (Second Price Survey) one finds the following order of price levels from the lowest to the highest price level. F, B, D, C, A, E.

In summary one could propose that the following rank order of price level in the different areas would be a reasonable good hypotheses: (from lowest to highest price level)

F: Shopping Centers

B: Town Centers
   City Core

D: Suburban Areas
   Shopping Areas

C: Town Centers
   Local Shops

A: Capital City Core

E: Suburban Areas
   Local Shops.

First Price Survey in Denmark, July 1976
- Price Level by Location

| Number / Location | Rank pos. no.1 | Rank pos. no.2 | Rank pos. no.3 | Rank pos. no.4 | Rank pos. no.5 |
|---|---|---|---|---|---|
| B: Town Centers, City Core | 12 | 16 | 8 | 4 | 4 |
| C: Town Centers Local Shops | 3 | 3 | 15 | 19 | 4 |
| D: Suburban Areas Shopping Areas | 10 | 8 | 17 | 2 | 6 |
| E: Suburban Areas Local Shops | 0 | 1 | 8 | 10 | 25 |
| F: Shopping Centers | 21 | 15 | 6 | 1 | 1 |

## Second Price Survey in Denmark, July 1976
## - Price Level by Location -

| Number<br>Location | Rank pos. no.1 | Rank pos. no.2 | Rank pos. no.3 | Rank pos. no.4 | Rank pos. no.5 | Rank pos. no.6 |
|---|---|---|---|---|---|---|
| A: Capital City Core | 10 | 5 | 2 | 5 | 18 | 18 |
| B: Town Centers City Core | 10 | 15 | 14 | 16 | 4 | 5 |
| C: Town Centers Local Shops | 8 | 9 | 13 | 20 | 10 | 4 |
| D: Suburban Areas Shopping Areas | 11 | 24 | 9 | 7 | 10 | 3 |
| E: Suburban Areas Local Shops | 2 | 7 | 8 | 11 | 11 | 24 |
| F: Shopping Centers | 29 | 12 | 10 | 7 | 5 | 1 |

## Differences in price level by size group of retailers

The findings concerning price differences between big and small retailers are summarized in the following tabel.

The tabel gives the results of a product by product comparison of the price level for big retailers and small outlets.

Big retailers are defined as supermarkets and department stores and small outlets as small supermarkets "superetter" and traditional grocers.

Taking both survey together the tabel shows that the average product price for between 70 and 80% of all products are less for big retailers than for small outlets. Only in 15 to 19% of all cases the big retailers have the highest prices.

First and Second Price Survey in Denmark
January and July 1976.
Big Retailers and Small Outlets Price Levels.

| | First Survey | | Second Survey | |
|---|---|---|---|---|
| | Number | % | Number | % |
| Average big retailer < small outlets | 46 | 82,1 | 53 | 69,7 |
| Average big retailer > small outlets | 8 | 14,3 | 15 | 19,7 |
| Average big retailer = small outlets | 2 | 3,6 | 8 | 10,6 |
| Total | 56 | 100,0 | 76 | 100,0 |

## Variation in producer prices and retail prices

The pattern of variation in producer prices lies between ÷ 12% and + 36% for the periode january to july 1976.

In the same period the average retail prices varied between ÷ 6% and + 26%.

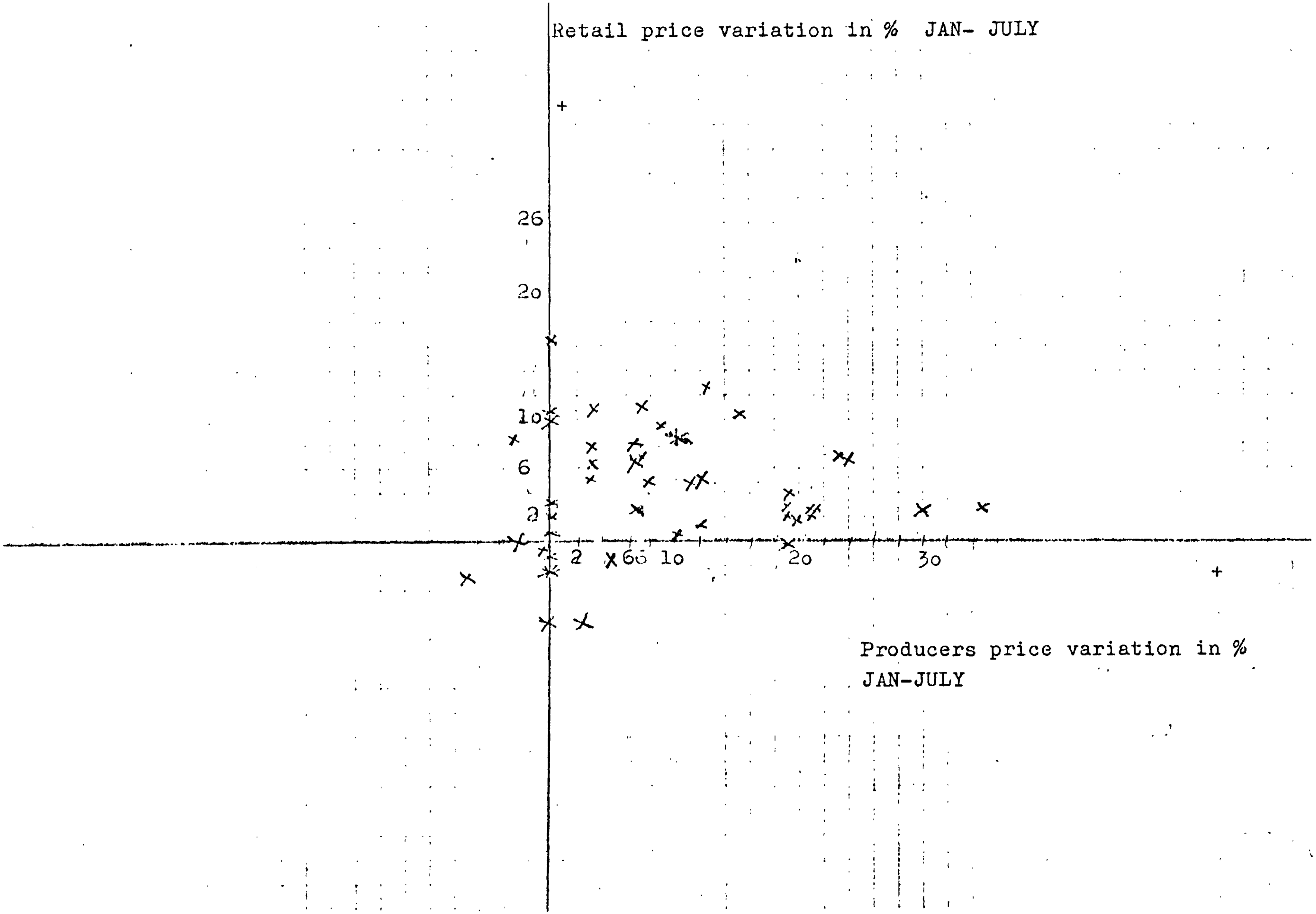
The pattern of variation are found in the following figure.

From looking at the figur it seems clear that there are a positive correlation between the change in producer prices and retail prices although the correlation seems rather weak.

Judging from the figur it seems that a certain increase in producer prices results in an increase in the retail prices, but it also seems that the % increase in retail prices are less than the % increase in producer prices.

One would a priori expect these findings because of the time lag between producer and retail price change and because of the difference in the price elasticity of demand for producers and retailers.

It would have been desirable to analyse the pattern of price changes for different groups of producers - grouped according to competitive structure - and for different groups of retailers. The size of the sample has been to small to carry this analyses trough.


Retail price variation in % JAN- JULY
26
20
10
6
2
2
6
10
20
30
Producers price variation in % JAN-JULY

Differences in price variations between big retailers and small outlets:

From the following tabel it can be seemed that in 35 cases out of 55 the average price change between January and July were greater for big retailers than for small outlets. In 20 cases out of 55 the small outlets change their prices with a greater % - on the average - than the big retailers.

Tabel: Differences in Price Variation Between Big Retailers and Small Outlets January to July 1976

| | |
|---|---|
| Number of products for which big retailers had greater price change than small outlets | 35 |
| Number of products for which small outlets had greater price change than big retailers | 20 |
| Total number of cases | 55 |

These findings indicate that the big retailers are more active in their price policy than the smaller outlets.

## Differences in price variations between different locations

Based on the price variations between January and July 1976 for the shops in different locations the following tabel compares the price activity in the different locations.

Tabel: Differences in Price Variations Between Different Locations.

| | Number of products for which the highest % price increase or least % price decrease are found in that location | Number of products for which the least % price increase or highest price decrease are found in that location |
|---|---|---|
| B: Town Centers City Core | 14 | 6 |
| C: Town Centers Local Shops | 9 | 6 |
| D: Suburban Areas Shopping Areas | 8 | 7 |
| E: Suburban Areas Local Shops | 2 | 16 |
| F: Shopping Centers | 10 | 7 |
| Total number of cases | 43 | 42 |

The findings of the tabel seem to indicate that the most extreme price changes are found in the areas B, E and F while the price changes in the areas C and D are less extreme.

Furthermore one can observe a marked difference in the direction of the price changes. Area B: Town Centers in City Core have a marked tendency to the highest increase or least decrease in prices, while the opposite is the case for area E: Local Shops in suburban areas.

The other areas have a less marke position. Area C have some resemblance to area B, while D and F have around the same number of price changes in each group.

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