

**COMMISSION OF THE EUROPEAN COMMUNITIES**

**A STUDY OF THE EVOLUTION  
OF CONCENTRATION  
IN THE DUTCH  
BEVERAGES INDUSTRY**

**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 presents the results of the research on the beverages industry in the Netherlands, while similar volumes concerning this industry are also being published for other Member States (France, United Kingdom, Germany, Italy, Belgium and Denmark).

COMMISSION OF THE EUROPEAN COMMUNITIES

**A STUDY OF THE EVOLUTION  
OF CONCENTRATION  
IN THE DUTCH  
BEVERAGES INDUSTRY**

Manuscript finished in November 1976

© Copyright ECSC/EEC/EAEC, Brussels, 1976  
Printed in Belgium

Reproduction authorized, in whole or in part, provided  
the source is acknowledged

## 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.

## CONTENTS

Part 1: Concentration in the Beer Industry

Part 2: Concentration in the Distilling Industry

Part 3: Concentration in the Soft Drinks Industry

## Table of contents

	<u>page</u>
Introduction and general survey	13
Part I Historical and Technical aspects	
1.1 The brewing process and raw materials supply	15
1.2 Consumption and concentration patterns over time	16
Part II The Present Structure of the Industry	
2.1 Overall remarks	17
2.2 Concentration measurement	20
2.2.1 Cost structure	32
2.2.2 The technical optimal scale of brewing	33
2.2.3 Mergers	36
2.2.4 Product differentiation	37
2.2.5 The sub-markets	38
Part III The structure of distribution	
3.1 General remarks	40
3.2 Wholesaling	41
3.3 Retailing	44
3.4 The licensed retailer	45
3.5 Unlicensed retailers	46
Part IV Aspects of behaviour and Performance	
4.1 Cartel agreements	48
4.2 Prices	50
4.3 Stability of marketshares	52
4.4 Profitability	53
4.5 Advertising	57

## Table of contents

	<u>Page</u>
Introduction and conclusions	63
Part I Production and consumption of spirits and liquors	
1.1 Raw materials	64
1.2 Manufacturing of geneva, liquors and advocaat	65
1.3 Consumption	66
1.4 Exports and imports of spirits	68
Part II The structure of the spirits-branch in the Netherlands	
2.1 Introduction	71
2.2 Concentration	73
2.3 The measurement of concentration	74
2.4 Productmarkets	80
2.4.1 Young geneva	82
2.4.2 Old geneva	83
2.4.3 Lemon flavoured spirits and liquors	84
2.4.4 The productmarket of vieux	85
2.4.5 The productmarket of advocaat	86
2.5 Mergers	87
2.6 Recent events	90
2.7 Cost-structure and economies of scale	91
2.8 Advertising	92
Part III Distribution	
3.1 General remarks	93
3.2 Wholesale trade	94
3.3 Purchasing organizations	96
3.4 Retail trade	96
3.5 Competitive developments in distribution	99
3.6 The temporary price war in spirits	102
3.7 Spirits-selling in other branches	103
Part IV The largest Dutch distilleries	104



## Table of contents

	<u>Page</u>
Part I	
Introduction and general survey	117
General development of the Dutch soft drinks industry	118
The composition of soft drinks production	119
Part II	
The structure of the Dutch soft drinks industry	121
Total industry	121
Cost-structure	136
Part III          Productmarkets	
General remarks	
The product market of fruit based lemonades	137
"      "      "      "      cola drinks	139
"      "      "      "      lemon-lime drinks	140
"      "      "      "      tonics	141
"      "      "      "      fruit juices	142
Part IV	
Distributional and performance aspects	143
Packing and distribution	144
Advertising	145
Prices	146



Report on Concentration in the  
Dutch Beer Industry (1970-1974)

By

Maria Brouwer (ec.drs.)

under responsibility of  
Prof.Dr. H.W. de Jong

Nijenrode, "Instituut voor Bedrijfskunde",  
Breukelen

November 1976



## Introduction and general survey

This report is a part of the concentration-study of the Dutch beverage-industry, containing the sectors: beer, soft-drinks and alcoholic liquors. The purpose of this report is to describe the structure and the evolution of the Dutch beer-industry and beer-distribution, especially during the period 1970-1974.

The report is divided in four parts. The first part deals with some technical features of the brewing-process and the evolution of the brewing industry from a long-run perspective.

In the second part the concentration-data, both absolute and relative for the 1970-1974 period are presented and analysed. The structure of beer-distribution is dealt with in part three of the report. Part four gives evidence about some major aspects of the industry's conduct and performance.

Looking at the concentration-data of Dutch breweries it becomes obvious, that the Dutch beer-industry is a heavily concentrated one.

There are only 14 brewing-firms left, of which the largest one (Heineken) covers more than half of total sales. Of a traditional home-activity brewing has become a large-scale industry, the operating area of which is not restricted to national boundaries.

The industry was already heavily concentrated in 1931, when six firms covered more than 85% of sales. However, it's structure was fundamentally reshaped during the years 1968/1969. In these years allied Breweries conquered the second place on the Dutch beer-market by taking over 2 firms. By means of this take-over, allied Breweries was able to establish its most important foreign subsidiary: Skol/ Holland.

Heineken may have felt threatened by the foreign beer-gigant and enlarged its market share from 35 till about 55% by taking over the Amstel Brewery. The third firm, active on the merger-frontier during these years was the Belgian Brewery Stella Artois. It established itself on the Dutch market by taking over 2 breweries in the southern part of the Netherlands.

The industry's structure has not changed much since then. Concentration was maintained at a very high level with a concentration ratio for the first four firms of over 90% of total sales.

Besides concentration, internationalization is an important aspect of the Dutch brewing-industry. Not only are foreign firms invading the Dutch market and did

their subsidiaries cover 19,5% of total sales in 1974, Dutch firms also export a considerable share of total sales to both European and non-European countries. Dutch beer-exports amounted to 188 million florins in 1974, being 17,5% of total production.

The export share of beer output is therefore relatively high in comparison with other European countries. (German and British exports covered only 2,15% and 1,21% of total productions in 1974 respectively).

Apart from direct foreign sales by means of exports, Heineken the main-exporter also owns subsidiaries in foreign countries: 43% of Heineken's total beer output was produced by its subsidiaries in 1974.

The domestic brewing-industry employed 6697 men in 1970 and 8354 men in 1974, an increase of 20%. Sales of the investigated firms grew by 57% in the examined five-year-period from 682 million florins in 1970 to over one thousand million florins in 1974.

Prices of the established beer-brands have shown a moderate upward movement until 1974. Cartels and individual vertical price-agreements preserved this price-policy of the big breweries. The large retailing-organisations (supermarkets) sold beer under their own brandnames at lower prices.

In 1974 some leading retailers broke through the vertically fixed price-structure of the big breweries. These events led to a decline in beer-prices varying in magnitude according to retailer.

This down-ward movement is still continuing.

Nowadays, beer-consumption consists for 99% of heavy beer. Physical product-differentiation therefore is of minor importance.

Non-physical productdifferentiation by means of establishing brands, sustained by advertising, specific packaging (and distribution) is more important nowadays. Firms try to create sub-markets in this way, which are relatively sheltered from competition of other beer-firms.

## 1. HISTORICAL AND TECHNICAL ASPECTS

### 1.1 The brewing process and raw materials supply

The brewing-method used nowadays with little exceptions is bottom-fermentation. This brewing-method originated in Germany around 1870 but soon spread out over Europe and the U.S. From that time onwards large brewing-kettles and store-rooms were needed, so that brewing became industrialized.

Beer is a beverage, made of barley, water, hop, maize and sugar. The barley is changed into malt and by means of an alcoholic yeasting-process beer is produced. Hop is added in the later stages of the brewing-process. It gives the beer its characteristic bitter flavour.

In the Netherlands malting is done:

- by the breweries themselves
- by independent malteries
- by malteries, having a wage-contract with the breweries.

The Dutch brewing industry uses only Dutch and French barley. Nowadays domestic barley can be used exclusively, because of improved cultivation-techniques, which have made Dutch barley suitable for brewing. Since the foundation of the agricultural Common Market imports from non-EC-countries were prevented. Since 1948 barley is centrally bought for the entire industry by the "Centraal Brouwerij Kantoor" (Central Breweries Office). This branch-organisation was founded in 1938. It buys the barley and distributes it among its members <sup>at</sup> a uniform price. All Dutch breweries but one are members of the CBK.

The big breweries preferably malt the barley themselves. Only 5 small, non-integrated malt-houses existed in the Netherlands in 1974. Two of these operated on a contract-basis and received malting wages in return.

The other malt-houses both malted barley bought by the breweries on a wage-basis and sold their own malt to the breweries. The big breweries only deal with the malt-houses on a wage-contract-basis. They rely on the non-integrated malt-houses in order to meet peak-demands. Total consumption of barley was 205.000 tons in 1974.

Hop is still imported a.o. from Germany. The quantities of hop used are considerably smaller than those of barley. Hop-prices are also more volatile than barley prices, but prices in a particular year are equal to all firms, because no quantity-reductions are given.

## 1.2 Consumption and concentration patterns overtime

Looking at the consumption level of beer from a long-term perspective table 1 shows, that beer-consumption has been subject to great fluctuations during the past decades. The depression of the thirties and the war-years caused a steady decline in beer-consumption per capita. After 1949, per capita beer-consumption started to grow again, but it lasted till 1965, before beer-consumption reached the level of 1916 again.

Table 1

The evaluation of beer-consumption and the number of breweries

<u>year</u>	<u>number of firms</u>	<u>sales x 1000 hl.</u>	<u>consumption per capita in liters</u>
1916	383	2530	36,9
1946	79	1883	19,0
1955	44	2320	16,2
1960	38	3552	23,8
1965	32	5402	37,2
1970	16	8724	57,4
1975	14	12442	76,2

Source: Produktschap voor bier, Annual Reports

Concentration has increased since the turn of the century although the process of bottom-fermented brewing required larger plants from the beginning, increasing demand prevented the new techniques from having a concentration stimulating effect at once.

Concentration was strengthened by the brewers' policy to furnish credit to their customers. This banking-function required large amounts of capital which only the big breweries could afford.

The ensuring competition by way of credit facilities was moderated, when in 1902 the "Bond van Nederlandsche Brouwerijen" (Dutch Breweries' Union) was founded.

This cartel-like organisation took a hand in regulating company behaviour.

Table 1 shows, that before World War II decreasing demand and decreasing firm-numbers went hand in hand. After the war and especially during the sixties, concentration increased under conditions of expanding demand.

Already in 1931, the industry's structure had reached a concentrated shape. In that year, 85% of employees in the entire brewing-industry were employed by six large firms. This structure did not change much until the sixties: the merger-years.



## 2. THE PRESENT STRUCTURE OF THE INDUSTRY: PRODUCTION

### 2.1 Overall remarks

In this section the results of the investigation into concentration-data are presented.

The data were collected for the period 1970-1974 and were acquired from the Central Bureau of Statistics in the Netherlands.

With respect to the collected data some remarks have to be made.

- the research only covers firms, employing more than 10 employees
- in the financial data, excise-duties are included
- the variable cash-flow refers to value added minus wages, salaries and social charges. Thus apart from net profits and depreciation allowances it also contains merits and some production costs, for instance packaging costs.
- wages and salaries are inclusive of social charges and insurance premiums
- sales are recorded at off-plant prices.

Import-data were not included in the investigation. To get an impression of the magnitude of imports in apparent consumption, table 1 has been made. Apparent consumption is defined as domestic consumption + imports-exports.

Table 1

#### Imports as a percentage of apparent consumptions

<u>Year</u>	<u>% in hecto liters</u>	<u>% in florins</u>
1970	2,3	3,8
1971	2,7	3,0
1972	2,7	2,5
1973	3,9	2,7
1974	3,7	2,2

Imports measured in value-terms have decreased as a percentage of apparent consumption, but imports measured in quantity-terms have increased.

This leads to the conclusion, that imports have become considerably cheaper during the period under review.

Table 2

Exports as a percentage of apparent consumption

<u>Year</u>	<u>% in hecto liters</u>	<u>% in florins</u>
1970	17	18
1971	16	18
1972	14	17
1973	15	17
1974	16	17

Beer-exports have always been important to the Dutch brewing-industry.

Before World War II dutch exports exceeded both absolutely and relatively those of other countries. Table 2 shows, that the exportshare of Dutch beer sales has diminished in recent times. However, the balance of trade for beer, still gives a large surplus as a comparison of tables 1 and 2 indicates. The difference between exports and imports amounted almost 15% of sales in 1974.

In contrast to imports, exports are larger in value-terms than in quantity-terms. This leads to the conclusion, that export-prices are higher than domestic prices, import-prices are lower. This may be due to the fact that Heineken, with its high-priced marks, is the foremost exporter.

Table 3

The Evolution of some variables

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Number of firms	14	14	14	14	13
Sales (x 1000 fls)	681.737	811.171	880.247	1.003.681	107.862
CR4	91	91	92	92	92
Gross wages (x 1000 fls)	152.459	171.240	193.544	219.517	259.066
CR4	90	90	91	90	92
Average gross wages four largest firms (x 1000 fls)	21.739	24.044	27.480	29.850	35.773
	22.489	24.873	28.743	30.879	36.568
Number of employees	7.013	7.122	7.043	7.354	7.242
CR4	87	87	87	87	90
Gross Investments (x 1000 fls)	34.971	50.189	85.318	82.992	85.149
CR4	88	89	93	91	89

The evolution of some variables is drawn in table 3. The growth of the variables measured in absolute terms is also recorded. The table shows, that growth has been considerable for all variables, / between 1970 and 1974. Concentration however, was high for all variables at the beginning of the period and grew only slightly afterwards. From table 3 it can be derived, that labour-costs are about 25% of sales at off-plant prices. Average sales per employee amounted to 148.697 florins in 1974. Labour-intensity related to size-classes of firms is presented in table 4.

Table 4

Labour-intensity, related to size of firm (1974)

<u>Sales x 1 million florins</u>	<u>S/E</u>
> 500	163.449
250-500	-
100-250	136.545
40-100	126.274
5-50	92.202

The table shows an inverse relationship between labour-intensity and size. Differences within the separate size-classes are important however. Studying these differences we noticed, that multi-plant firms, belonging to foreign firms had a considerably higher labour-intensity as compared to Dutch firms within the same size-class.

Another characteristic of foreign subsidiaries is recorded in table 5. It shows that foreign subsidiaries, penetrating the Dutch market, are increasing in number, but not in marketshare. Two foreign subsidiaries had 20% of the market in 1970, but their share decreased to 15% in 1973 and could only be restored till about its 1970-level by means of a take-over in 1974.

Table 5

Numbers and marketshares of foreign subsidiaries; variable: sales

<u>Year</u>	<u>Number of firms</u>	<u>Number of plants</u>	<u>Marketshare</u>
1970	2	5	20
1971	2	5	19
1972	2	4	18
1973	2	4	15
1974	3	6	19

## 2.2 Concentration measurement

Concentration-data for the period 1970-1974 are presented in tables 6 to 19 (inclusive). Several coefficients indicating both absolute and relative concentration have been used. Relative concentration or the degree of inequality between firms in an industry is measured by the coefficient of variation (V), the Gini-coefficient (G), the Herfindahl-Hirschman-index (H) and the Entropy-index (E).

The concentration ratio's for the largest 4 and 8 firms measure absolute concentration. We shall take a closer look at the different concentration coefficients.

The coefficient of variation (V): tables 6 to 12.

The V-coefficient measures the relative spreading and the degree of inequality within the industry. Its lower limit is 0 and its upper limit is  $\sqrt{n-1}$ , which in the case of the brewing-industry is 3,5.

It follows, that concentration in this sense is fairly high. The highest values for V are reached for the variables, sales and wages and salaries. The lowest values relate to the variables cashflow and gross investments. The latter variable has a highly volatile character. As far as the evolution over time is concerned, the values for all the variables hardly show ups and downs with no important or persistent change in the one or the other direction.

The Gini-coefficient (tables 6 to 12)

The Gini-coefficient also measures inequality within the industry. The lower limit of this indicator is 0, its upper limit is  $\frac{n-1}{n}$ , i.e. it will be equal to 1 when  $n = \infty$ . In the beer brewing industry its maximum level is 0.95. The values of the Gini-coefficients are rather high; the lowest values are reached for the financial variables. The evolution over time shows a rather stable pattern. No important changes in inequality have occurred during the early seventies. It should be kept in mind, that the Gini-coefficient does not take account of the number of firms.

The Herfindahl-index (tables 6 to 12)

The H-index is a synthetic-index in the sense that both the number of firms and the degree of inequality are taken into consideration. Its values are located between the boundaries  $\frac{1000}{n}$  and 1000.

The values of this coefficient may be seen to be fairly high.

The values for the variables, sales, wages and salaries and exports are rather stable, while those relating to investments and cashflow fluctuate.

The H-value for the number of employees increases.

### The Entropy-index (tables 6 to 12)

The E-index again is a mixed measure being sensitive both to changes in relative positions and to the variations in the number of firms.

The value of the E-index is a negative one, its lower limit being  $100(-\log n)$ .

The upper limit of the index is 0. The tables show that the E-values for the variables, sales and wages and salaries are the most stable ones.

The E-value for exports is much lower than for the other variables.

### The Concentration-ratio (tables 6-12)

The CR represents the degree of absolute concentration i.c. the aggregate marketshare of the largest 4-8 firms. Its possible values lie between 0 and 100.

There is no doubt that concentration for all variables is very high.

### The Linda-index (tables 13 to 19)

The L-index has to be considered in combination with the concentration-ratio.

It measures the "oligopolistic equilibrium" by giving information about the relative shares and their evolution of the top-firms.

$N^*$  is the total number of firms in the sample.  $N_m^*$  is the number of firms, for which the minimum L-value is reached.

When  $N_m^* \ll N$  it is possible to speak of two groups of enterprises within the sample, with an important difference in size between the  $N_m$ -th and  $N_m + 1$ th enterprise.

The group of the  $N_m$ -firms are considered to form the "Oligopolistic arena".

For this group of firms, the  $L_s$ -index is computed. The  $L_s$ -index describes the degree of inequality existing between the first  $N_m$  enterprises.

The  $N_h^* \leftarrow$ -index and its corresponding value  $LN_h^* \leftarrow$  give information about the firm for which the highest L-value is reached within the leading group.

When the highest L-value is reached for the second firm (e.g. table 3),

this means that within the Oligopolistic Arena the greatest inequality is

found between the first and the second firm. When the  $LN_h^* \leftarrow$  value is high

or rising, this indicates that the largest firm has a dominant position or is increasing its dominance. The  $N_h^*$  firm and the  $LN_h^* \leftarrow$  value indicate for which

firm the (absolute) highest L-value is reached. Looking at the Linda-indexes of the dutch beer-industry it is clear that  $L_s$ -figures are very high for most

variables and that inequality is rather pronounced. For exports there is an extreme dominance of the largest firm.

The evolution of the L-indices does not invariably show a trend for all variables.

Only for sales and gross investments the values of the  $L_s$ -indices show a clear upward tendency.

It is moreover the case that L-values for all variables demonstrate shifts in both directions.

With respect to the  $N^*_h <$  and  $LN^*_h <$ -values however, the dominance of the first firm has increased.

In 1974 the leading firm had gained a dominant position for all variables, / this including the variables employees and wages and salaries, for which/dominance did not prevail in 1970

Summarizing, we are able to conclude, that inequality is very high with a pronounced dominant position for the largest firm.

With respect to the variables sales and domestic sales it is to be noticed, that the number of firms, together constituting the Oligopolistic Arena, is declining.

CONCENTRATION COEFFICIENTS

Table 6

Variable: Sales 01

Year	number of firms	V	Spread coefficients			Other concentration- coefficients	
			G	CR4	CR 8	H	E
1970	14	2.21563	.79136	90.89	99.45	442.07286	-56.54562
1971	14	2.22740	.79011	91.46	99.21	425.80850	-56.47402
1972	14	2.22423	.79250	91.48	99.44	424.79867	-56.19737
1973	14	2.22242	.79030	91.97	98.29	424.22431	-56.48267
1974	13	2.12038	.78412	92.07	99.53	422.76991	-55.23259

Tabel 7

Variable: Persons employed 02

Year	number of firms	V	Spread coefficients			Other concentration- coefficients	
			G	CR4	CR8	H	E
1970	14	1.95027	.75383	87.45	99.20	343.11165	-64.31070
1971	14	2.01542	.75005	86.82	98.81	361.56489	-64.10548
1972	14	1.94252	.74803	87.14	98.81	340.95655	-65.02023
1973	14	2.00274	.74826	87.12	98.91	357.92665	-64.48491
1974	13	2.15197	.78020	90.31	99.21	433.15303	-61.56884

Table 8

Variable: Wages and salaries 03

Year	Number of firms	V	Spread coefficients			Other concentration- coefficients	
			G	CR4	CR 8	H	E
1970	14	2.22737	.79180	90.49	99.55	425.79744	-56.08879
1971	14	2.18677	.78208	89.92	99.18	412.99733	-57.87978
1972	14	2.25500	.79024	90.81	99.36	434.64415	-55.94500
1973	14	2.24663	.77809	89.50	99.09	431.95311	-57.50628
1974	13	2.15197	.78020	92.23	99.31	433.15303	-55.46276

Table 9Variable: cash flow 05

Year	Number of firms	V	Spread coefficients			Other concentration-coefficients	
			G	CR4	CR 8	H	E
1970	9	1.57132	.69237	93.20	99.64	385.44806	-55.91588
1971	9	1.71002	.69661	92.71	99.34	436.02042	-53.76654
1972	9	1.47952	.64186	90.40	99.31	354.33002	-61.77896
1973	9	1.49777	.64477	90.78	99.37	360.36959	-61.16341
1974	8	1.52465	.65583	92.36	-----	415.57026	-54.64045

Table 10Variable: Gross Investments 06

Year	Number of firms	V	Spread coefficients			Other concentration-coefficients	
			G	CR4	CR 8	H	E
1970	13	1.37332	.66527	87.86	99.27	222.00107	-75.78375
1971	13	2.09397	.75136	88.96	99.22	414.20827	-59.59665
1972	13	1.67756	.73889	92.88	99.68	293.40137	-65.13301
1973	13	2.14471	.75379	90.50	99.23	430.75260	-58.17674
1974	12	1.38890	.67690	88.49	99.88	244.08787	-70.91390

Table 11Variable: Exports 08

Year	Number of firms	V	G	CR4	Other concentration-coefficients	
					H	E
1970	5	1.69787	.74572	99.98	776.55488	-17.76432
1971	5	1.65660	.73763	99.98	748.86349	-19.57292
1972	5	1.67015	.73964	99.99	757.88123	-19.25055
1973	6	1.88856	.77928	99.79	761.10974	-20.06935
1974	6	1.85547	.77584	99.83	740.46344	-21.08283

Table 12Variable: Domestic sales 010

Year	Number of firms	V	G	CR4	CR 8	Other concentration-coefficients	
						H	E
1970	14	1.78194	.73517	86.87	99.21	298.23614	-68.83799
1971	14	2.05280	.76482	89.62	99.05	372.42635	-62.10576
1972	14	2.05663	.76792	90.17	99.16	373.55290	-61.57822
1973	14	2.05786	.76794	90.43	99.19	373.91324	-61.52928
1974	13	1.91351	.74465	88.73	99.50	358.57905	-62.91756



Table 13

Linda coefficients Variable: sales 01

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	3.29936	13	7	1.39301	2	1.87467	13	3.29936
1971	2.66896	13	7	1.46450	2	1.90964	13	2.66896
1972	3.10406	13	7	1.41984	2	1.95430	13	3.10406
1973	2.94706	13	7	1.43136	2	2.08822	12	2.97815
1974	3.84703	12	5	1.28485	2	2.02335	11	3.89732

Table 14

Linda coefficients Variable: persons employed (02)

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	2.25006	13	7	1.02841	4	1.54076	13	2.25006
1971	1.66771	13	7	1.04242	4	1.61840	12	1.69103
1972	1.82697	13	7	1.02910	4	1.54548	12	1.85331
1973	1.85516	13	8	1.05822	4	1.54180	12	1.86201
1974	2.38170	12	6	1.13957	2	1.57143	11	2.41823

Table 15

Linda coefficients Variable: wagens and salaries 03

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	3.65516	13	7	1.37322	4	1.91802	13	3.65516
1971	2.54288	13	7	1.29964	4	1.84552	12	2.56458
1972	2.76680	13	7	1.44446	2	1.95570	13	2.76680
1973	2.23992	13	8	1.34917	2	2.15668	12	2.24742
1974	2.80816	12	4	1.44697	2	2.08518	11	2.86409

Table 16

Linda coefficients Variable: cash flow

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	2.21979	8	3	1.14770	2	1.33593	8	2.21979
1971	1.70229	8	3	1.50470	2	1.99605	2	1.99605
1972	1.25253	8	7	1.06913	2	1.66223	2	1.66223
1973	1.36091	8	4	1.05950	2	1.89642	2	1.89642
1974	1.61618	7	5	1.21033	2	1.99020	2	1.99020

Table 17

Linda coefficients Variable: Gross Investments

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	1.84993	12	4	.46161	2	.80203	12	1.84993
1971	2.12441	12	6	1.20168	2	2.55281	2	2.55281
1972	2.91105	12	3	.71157	2	.79339	12	2.91105
1973	1.96889	12	4	1.25080	2	3.26009	2	3.26009
1974	2.90244	11	5	.57416	2	.73846	11	2.90244

Table 18

Linda coefficients Variable: Exports

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	28.02704	4	2	3.59360	2	3.59360	3	28.48080
1971	25.34247	4	2	2.09413	2	3.09413	4	25.34247
1972	23.54985	4	2	3.31112	2	3.31112	4	23.54985
1973	16.31095	5	2	3.59232	2	3.59232	5	16.31095
1974	20.14144	5	2	3.13981	2	3.13981	5	20.14144

Table 19

Linda coefficients Variable: Domestic Sales

Year	$L_s$	$N^*$	$N_m^*$	$LN_m^*$	$N_h^* <$	$LN_h^* <$	$N_h^*$	$LN_h^*$
1970	2.24276	13	7	.89230	2	1.16155	13	2.24276
1971	2.17545	13	7	1.17658	2	1.69969	13	2.17545
1972	2.45552	13	7	1.16287	2	1.73653	12	2.47598
1973	2.50765	13	7	1.17573	2	1.85306	12	2.52760
1974	2.63914	12	5	1.03587	2	1.81722	12	2.63914

Figure 1

Linda curve structure, Dutch beer-industry

Variable: sales

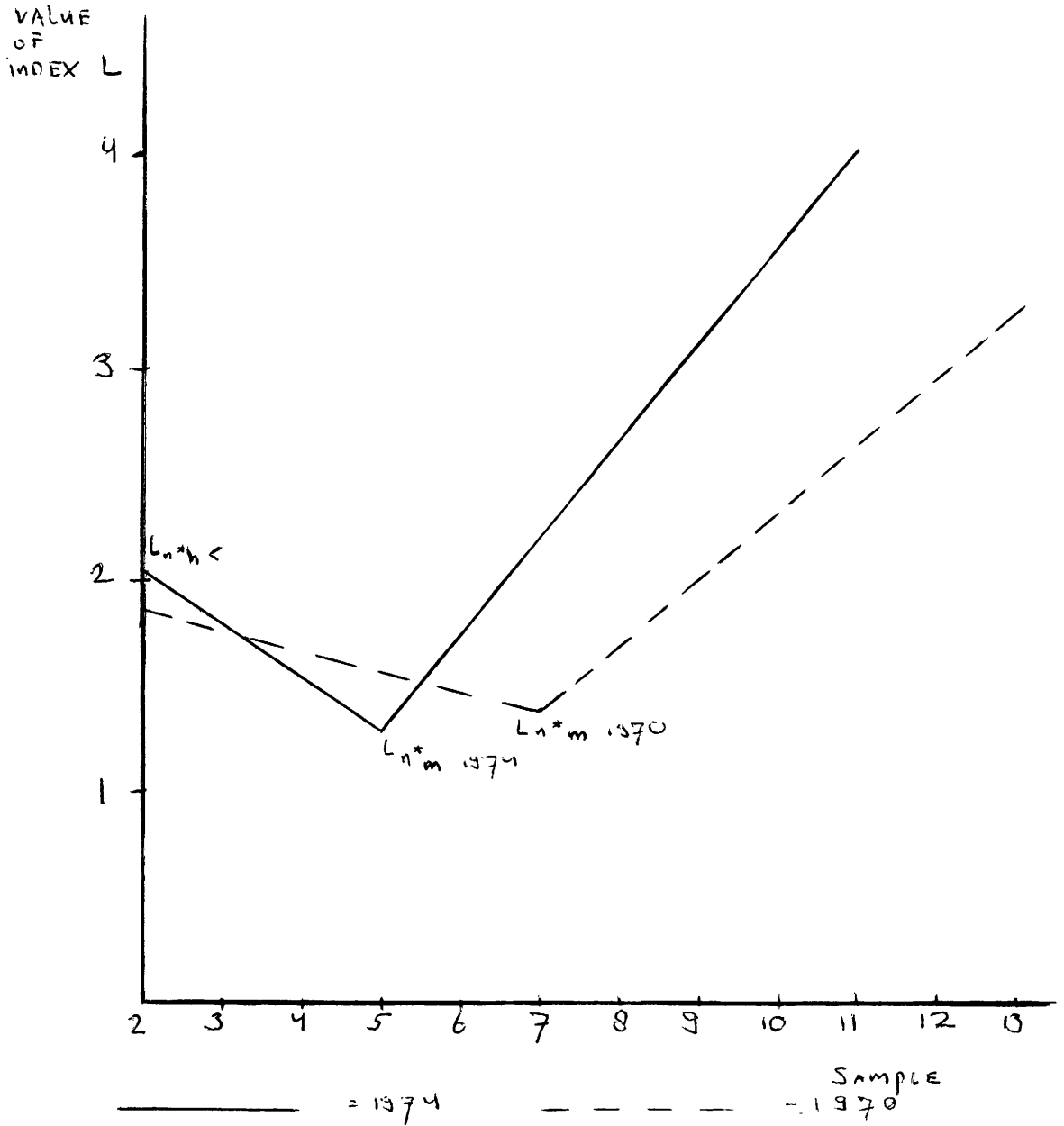


Figure 2

Linda curve structure, Dutch beer-industry

Variable: number of employees

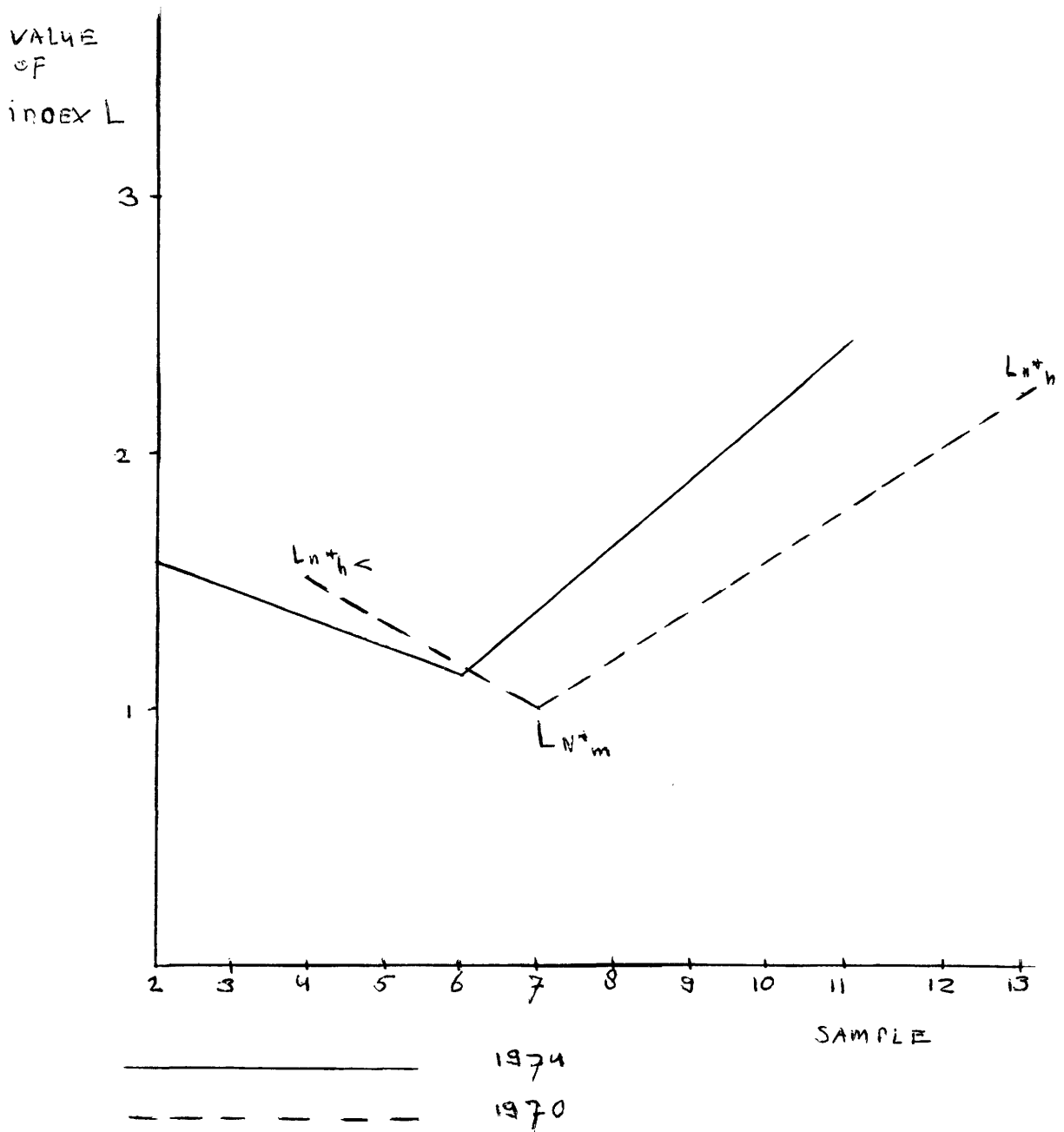


Figure 3

Linda curve structure, Dutch beer-industry

Variable: wages & salaries

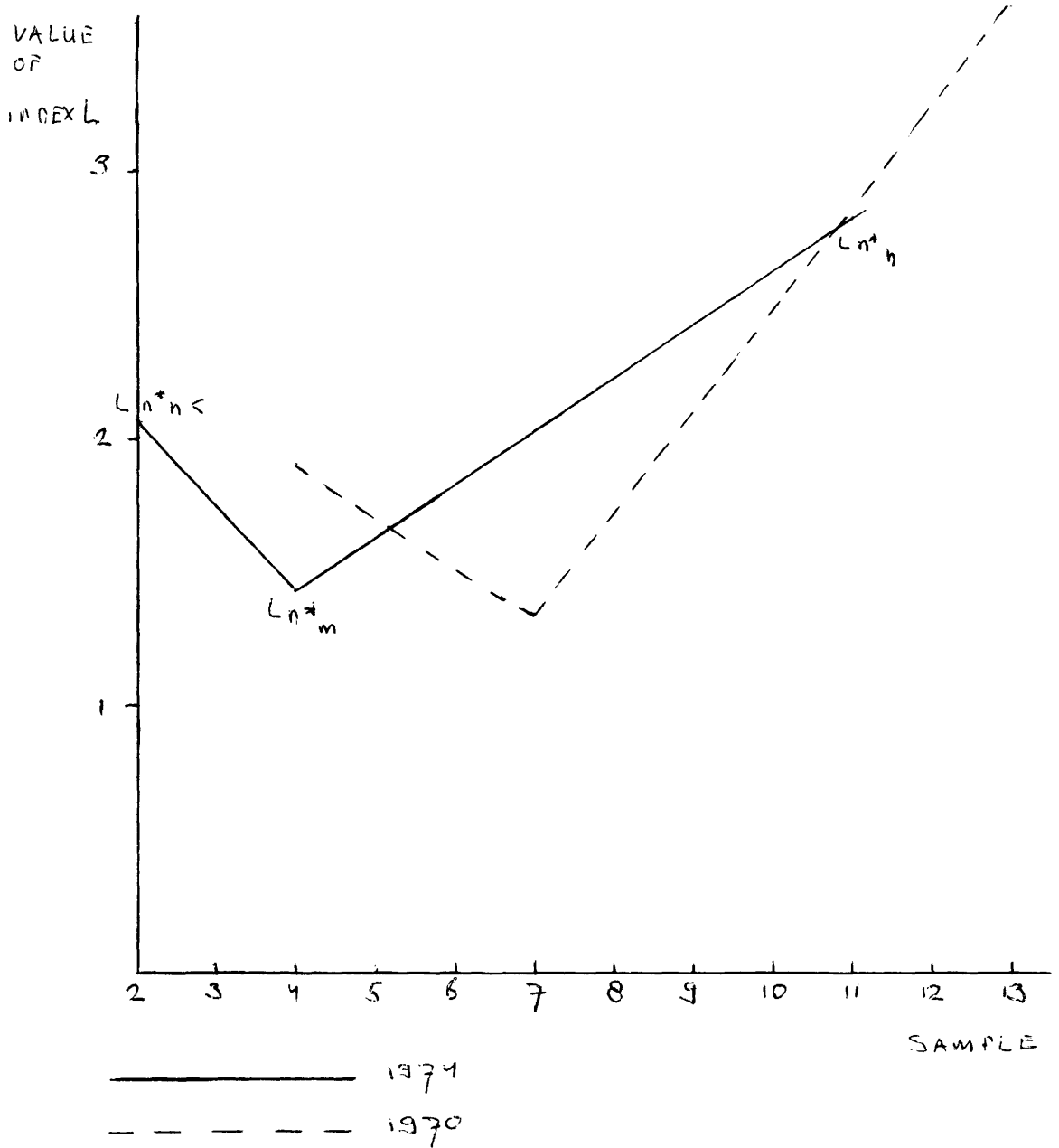
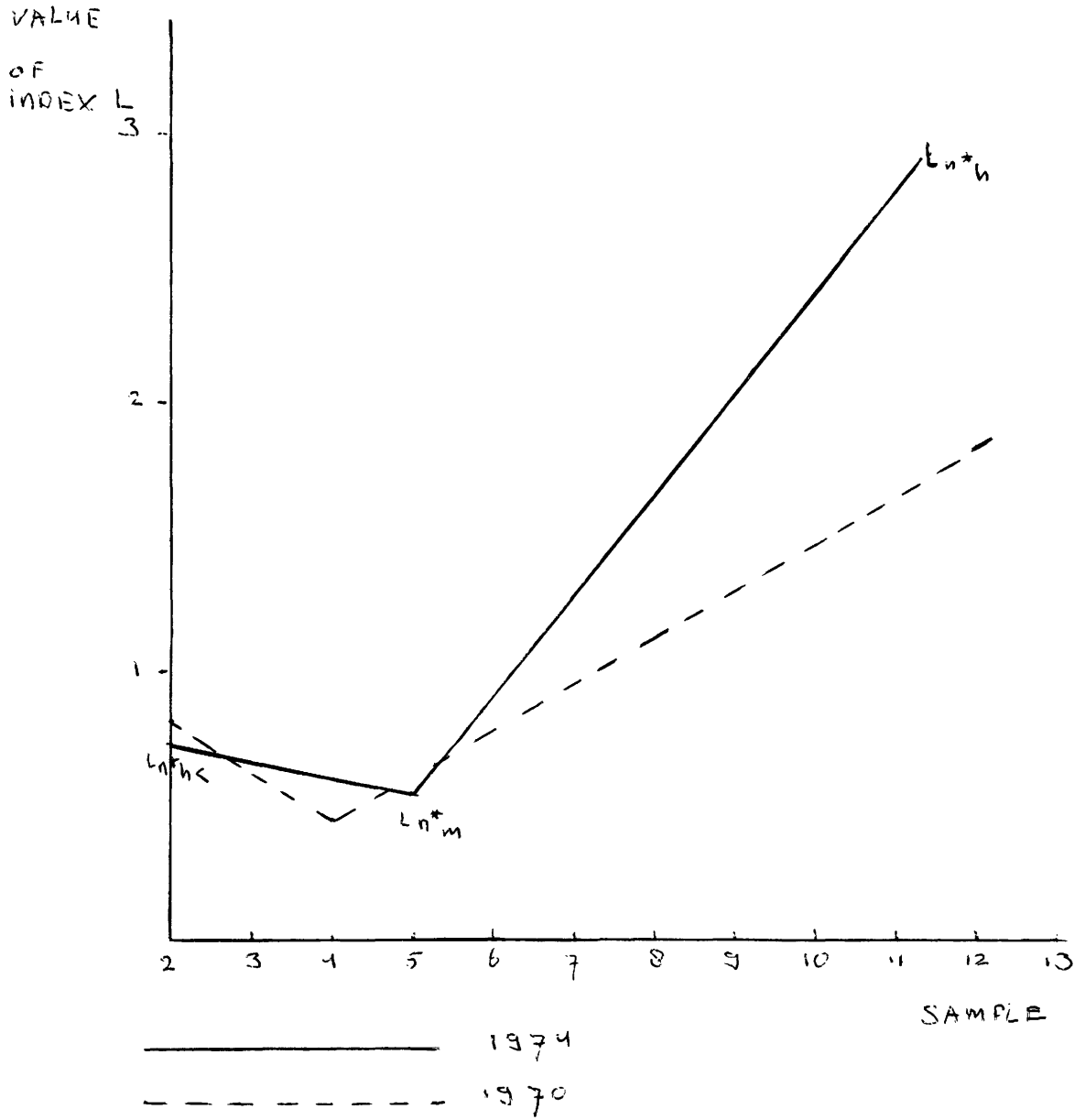


Figure 4

Linda curve structure, Dutch beer-industry

Variable: gross investments



## 2.2 Determinants of concentration

The results presented in the previous section lead to a clear conclusion with respect to concentration: concentration in Dutch beer-brewing is high, both in an absolute and in a relative sense and these high levels are preserved over time.

We will now investigate some factors, which may have contributed to this state of affairs.

### 2.2.1 Cost-structure

To get an idea of the importance of different cost-categories, a description of the industry's cost-structure is given.

Table 20 shows the cost-structure of the large breweries, the output of which covers about 99% of national beer-production. The table is based on data, published by the Central Statistical Office in The Hague.

Table 20: Cost-structure of large breweries  
(cost-categories as a percentage of production-value)

	<u>1972</u>	<u>1973</u>
Barley	3,7	4,0
Barley-malt	6,1	6,5
Hop (extract)	1,7	1,2
Maize	1,3	1,4
Other materials, energy and packaging charges	<u>12,9</u>	<u>11,9</u>
	25,7	24,9
Wages and salaries	27,5	26,9
Depreciation-allowances remaining costs and profits	46,8	48,2
	<u>74,3</u>	<u>75,1</u>
	100	100

Source: CBS, Production Statistics 1973.

Brewing, once described as a material-intensive industry has reduced material-expenditures to about a quarter of total production-costs. Roughly speaking another 25 percent is expended on labour compensation. The declining share of labour cost demonstrates, that rising wages and salaries have been surpassed by productivity-increases.

The remaining 50 percent is made up of some non-incorporated costs and cash flow.

According to the CBS, cost-structures of individual firms are rather similar to this average picture. This should indicate, that no appreciable cost-advantages relating to materials and labour are attained by the largest



firms. We'll investigate the importance of this factor in the following paragraph.

### 2.2.2 The technical optimal scale of brewing

It is a crude engineer's rule, that by doubling the kettle's diameter, its volume will increase three times and its costs two times.

It therefore would seem to be a sound conclusion to say, that large beer-plants operate at lower average per unit costs than small plants.

American investigators of the beer-industry<sup>\*</sup> state, that a plant operating under optimal conditions will employ at least 500 employees, or produce at least 500.000 hectoliter a year. A smaller plant-size is assured to lead to higher costs per unit of output.

However, a technically optimal plant-size is not always optimal from an economic point of view. Mainly two objections against considering the two as being identical can be put forward:

1. When the local market can not absorb the whole (optimal) output of a plant, transportation costs have to be incurred in order to serve distant markets;
2. Another constraint on attaining technically optimal plant-sizes may be a high-degree of product-differentiation, which would divide the industry into several non-competitive sub-markets.

With respect to the first point it is to be noted that most Dutch breweries - and in any case the larger ones - operate on a national scale.

\* K. Elzinga "The beer-industry" in "The structure of american industry" W. Adams (ed. )

Table 21

#### Structural aspects of the beer-industry in the EC-countries

Country	Average production pro plant (x 1000 hl)		Number of plants		Consumption pro capita
	1965	1973	1965	1973	1973
Netherlands	168,8	481,1	32	23	73,5
Germany	36,0	55,5	2034	1667	146,7
UK	176,9	373,9	274	162	112,0
Belgium	47,5	77,3	305	190	142,5
Denmark	175,9	347,0	28	26	113,0
Ireland	438,3	786,3	8	7	80,2
France	115,4	243,8	164	90	44,5
Italy	123,2	233,0	37	37	13,7

Source: "Annual Reports of the "Produktschap voor bier"

They also have succeeded in enlarging their market by means of exports. Transport costs thus do not seem to have been an unsurmountable barrier for reaching optimal plant-sizes. The average size of Dutch beer-plants is high in comparison to that of other EEC-countries, as table 21 demonstrates. This indicates, that a small domestic market not necessarily acts as a constraint on attaining plants of minimum efficient size. The second point mentioned above, viz product-differentiation may contain more substance.

Since the introduction of bottom-fermentation beer has become largely physically homogeneous. But company brands have increased in importance and this non physical way of product-differentiation has split up the beer-market into various sub-markets, sheltered from varying degrees of price-competition by rival beer-firms. In this way small plants can also survive, because consumers are strongly attached to a particular brand.

The facts bear out the importance of this second point. The three largest Dutch beer firms can be considered to be of optimal size as measured by above given American standard.

As table 22 shows, there exists a fairly great divergence between the number of firms and the number of plants.

Only the large firms are multi-plant organisations, which provides a rough support for the contention that firm size is not mainly determined by plant size.

Table 22

Numbers of Dutch beer-firms and plants

<u>Year</u>	<u>Number of firms</u>	<u>Number of plants</u>
1969	17	26
1970	16	23
1973	15	23
1974	15	23
1975	14	23

Source: Annual reports of the "Produktschap voor bier".

Taking a closer look at the plant-sizes of the largest firms now (table 23), it follows that a large increase in plant-sizes of the firms in all size-classes has occurred during the last decade. In 1969 only Heineken and Amstel could pass the optimality test. In 1974 all previously sub-optimal plants had made rapid advances towards optimality. Heineken's newest plant, established in Zoetermeer, near The Hague, started production in 1975 and has an output capacity of 1.500.000 hl. As can be seen from table 23, this plant is hardly larger than the average size of the Heineken's plants already in existence.

This would lead to the conclusion, that above a certain point (approx. 1,5 mio hl) no more economies of scale are to be expected. Between the minimum optimal plant size of 0,5 mio hl and the maximum optimal size of 1,5 mio hl some more economies of scale may well be achieved, but the extent of the advantages is unknown.

Table 23

The evolution of plant-sizes\* of the large breweries

	1966		1974	
	Number of plants	Average plant size <sub>x</sub>	Number of plants	Average plant size <sub>x</sub>
Heineken	3	800	5	1400
Amstel	2	750		
Oranjeboom } 3 Hoefijzers }	4 2	125 250	5	340
Grolsch	n.a.	n.a.	2	550
Others	21	40	12	237

\* In thousands of hectoliters

Referring to the U.S.-standard of an optimal plant, producing at least 500.000 hl. a year, only Heineken and Grolsch plants can be considered optimal from a technical point of view. Skol plants are sub-optimal. This firm however has not made investments in new plants to reach more optimal sizes. Probably cost-advantages of larger plants are not great enough to justify such investments. Summing up it may be stated, that Dutch breweries are approaching technically more optimal plant-sizes. This development is to a large extent due to increased demand. Also while large plants may be advantageous, firms do not always take deliberate action to achieve larger plant-sizes.

Given sufficient competition economies of scale should materialize in lower consumer prices. However, empirical evidence of beer-prices presented in a following paragraph about prices does not support the above statement.

In the Netherlands prices of the well established beer-brands, produced by the large firms are considerably higher than those of the less well-known brands and home-brands of the supermarket - chains which are produced by small breweries, often on a wage-contract basis. Thus it seems, that the leading breweries have two different types of advantages. In the first place the economies of scale, connected with their large size, lead to lower production-costs. In the second place they earn a premium, because consumers are prepared to pay higher prices for beers of a well established brand.

For the small breweries, the reverse applies. Their profit-margins are diminished both because of their higher production costs and because of their deficiency of the means, required to create a well-known national brand.

This situation with respect to prices also leads one to the conclusion that

competition between the large firms is not sufficiently intense so that the premiums earned by the leading brands disappear.

If economies of scale are not reflected in consumer prices, the developments of concentration during the last decade can not be explained by economies of scale either.

Firms in all size-categories have disappeared during the last ten years. Also, firms which could not be considered to be operating on a sub-optimal scale (Amstel) have been taken over, while a family-owned firm with a modest marketshare confining itself to the domestic market, seems to be doing very well.

Thus economies of scale would not seem to qualify as the motivating force behind increasing concentration.

### 2.2.3 Mergers

Another important factor with respect to concentration are mergers. Most of the firms which disappeared in the Dutch beer-industry after the second World War were acquired by other beer-firms.

The first important post-war merger occurred in 1960 and linked the "Zuid-Hollandsche Brouwerij" in The Hague with "d'Oranjeboom" brewery of Rotterdam. Both companies belonged to the six largest breweries of that year.

In 1968/1969, concentration increased significantly as a consequence of two mergers. In 1968 the combination ZHB/d'Oranjeboom mentioned above was taken over by Allied Breweries, together with the "3 Hoefijzers" brewery in Breda. In this way Allied's subsidiary Skol/Holland was founded. This firm presently occupies the second place on the market.

Skol/Holland covers about 70% of Allied Breweries' sales created by foreign subsidiaries with a marketshare of 16%.

In 1969 the Amstel-brewery was taken over by Heineken, creating the largest beer-producer in the Netherlands with a marketshare exceeding 50 percent.

Amstel-plants have continued production since then and the brand-name Amstel was preserved too. Only Amstel's label was changed. According to Heineken's, the merger was a defensive reaction against Allied Breweries' penetration.

In 1969 the Belgian brewery Stella Artois intruded the Dutch beer-market, by taking over two smaller breweries: the "Dommelsche Brouwerij" and the "Schaapskooi", an old cloister-brewery. Both firms are established in Brabant, the southern part of the Netherlands. Stella Artois enlarged its marketshare (to 4 percent), by taking over the "Hengelosche Brouwerijen" in 1974.

In 1974 another acquisition took place.

Maes, one of the smaller Dutch breweries was taken over by the Belgian brewery Alken; this brewery too has continued production until this moment.

#### 2.2.4 Product-differentiation

Improved brewing-techniques, particularly the introduction of the beer-filter have created bottled beer. When selling beer in bottles had become technically possible, the potential market increased appreciably. Before World War II drinking bottled beer was very uncommon. Bottling was done by non-integrated beer-bottlers, who bought the beer in kegs from the breweries. Initially bottled beer was mainly used for selling abroad. In 1931 73 percent of beer-exports consisted of bottled beer.

After the second World War breweries tried to improve declining sales by trying hard to make beer-drinking popular at home. In this they were greatly assisted by the coming of television in the early fifties. Large collective advertising-campaigns were organised.

As a result drinking-habits changed very quickly and now bottled beer-sales have outstripped sales of beer in kegs (table 24). It is noteworthy that bottled beer-sales are still gaining in importance.

Beer sold in tins has not become popular, notwithstanding serious efforts and accounts for about 1 percent of total sales.

Table 24

Bottled beer sales as a percentage of total beer sales

<u>Year</u>	<u>%</u>
1961	58
1968	60
1970	63
1973	65
1975	68

Source: Annual Reports "Produktschap voor bier".

Another important phenomenon for explaining market structure and company behaviour is that beer produced in the Netherlands today is to a large extent of a homogeneous physical character. It consists for 99 percent of the so-called heavy beer. "Heavy" refers to the percentage of malt-essence used, which for heavy beer amounts to 5 percent. Two other beer-types are light beer and extra heavy beer, which accounted for 0.7 percent and 0,3 percent respectively of total sales in 1974. The three types of beer have different prices. Light beer is cheaper than heavy beer and the extra heavy beer is more expensive.

Thus it is to be noticed, that Dutch beer history, starting with as many beer types as there were (local) producers has led in our times to an almost physical homogeneity of the product.

Given those shifts in the Dutch post-war beer market - i.e. the tendencies towards homogeneous heavy beer sold in bottles - it became almost a necessity to differentiate the product by means of labelling, branding and advertising, at least for the companies which marketed on a national scale. Competition in the beer market today is therefore mainly of a product-differentiation type, at least so far as the leading producers are concerned. Whatever price competition there is has been introduced by the supermarket chains, as will be known later on.

#### 2.2.5 The sub-markets

The total market can be sub-divided between bottled beer and beer on fust. We will first review concentration in both sub-markets.

Concentration-coefficients for beer in bottles and beer on fust have been computed and are presented in tables 25 and 26.

Roughly speaking the sub-market for beer on fust can be identified with the out-door market while the sub-market for bottled beer coincides with indoor-consumption.

#### Concentration in the sub-markets for bottled beer and beer on fust

Table 25

Concentration coefficients for bottled beer, variable: domestic sales

Year	Number of firms	Spread V	Coefficients G	Concentration ratio's		Other concentration coefficients	
				CR4	CR8	H	E
1970	14	2.33566	.81971	94.28	99.47	461.09219	-50.63644
1971	14	2.16104	.79599	93.05	99.36	405.00548	-56.25142
1972	14	2.15097	.79353	92.97	99.39	401.90365	-56.67044
1973	14	2.15753	.79654	93.28	99.49	403.92309	-56.24985
1974	13	2.05902	.78511	93.25	99.66	403.04484	-55.18305

Table 26

Concentration coefficients for beer on fust, variable: domestic sales

Year	Number of firms	Spread V	Coefficients G	Concentration ratio's		Other concentration coefficients	
				CR4	CR8	H	E
1970	14	1.89455	.72209	84.07	96.89	327.80769	-68.43202
1971	14	1.90713	.72553	84.65	96.71	331.22474	-68.00467
1972	14	1.90303	.72540	85.15	96.29	330.10975	-68.17045
1973	14	1.89384	.72404	85.11	96.21	327.61715	-68.48872
1974	13	1.79685	.71868	86.28	97.84	325.28325	-67.0060

Table 27

Linda-coefficients for bottled beer, variable: domestic sales

<u>Year</u>	<u>LS</u>	<u>N<sup>*</sup><sub>m</sub></u>	<u>LN<sup>*</sup><sub>m</sub></u>
1970	1.80806	3	1.51652
1971	1.60756	3	1.17791
1972	1.65228	3	1.17326
1973	1.49835	4	1.20743
1974	1.38753	5	1.06720

Table 28

Linda-coefficients for beer on fust, variable: domestic sales

<u>Year</u>	<u>LS</u>	<u>N<sup>*</sup><sub>m</sub></u>	<u>LN<sup>*</sup><sub>m</sub></u>
1970	1.23810	7	.87694
1971	1.25324	7	.94090
1972	1.27798	6	1.03798
1973	1.25240	6	1.01424
1974	1.16248	6	.91649

Comparing the two tables (25 and 26) it appears, that concentration as measured by the several concentration-coefficients is higher for bottled beer than for beer sold on fust. Concentration for the bottled beer market is also higher than for the overall beer-market.

All investigated firms sell in both sub-markets.

A characteristic of the market for beer, packed in kegs, is the relative importance of small firms. The small breweries, whose outlets are limited to local regions sell a larger share of their total beer-sales on fust than the large breweries.

Thus, in 1974, four small breweries sold 51,1 percent of their beer- sales on fust while the four largest breweries sold 32,3 percent of their total sales in this sub-market. This phenomenon is not of a recent date. In 1971 the picture was about the same; the four largest firms ~~then~~ sold 32,8 percent of their beer-sales in kegs and the small breweries 52,6 percent.

However, these large differences in relative shares of firms' sales do not prevent, the three largest firms in the overall market to occupy the same places in the sub-market of beer in kegs. Only the fourth largest firm in the total beer-market is not also the fourth largest in the sub-market of beer packed in kegs.

Linda-coefficients too reach higher values for bottled beer than for beer in kegs, indicating that inequality is less high for the latter than for the former sub-market. Taking an inter-industry point of view, the sub-market

for beer on fust shows a higher degree of inequality however.

It is remarkable that LS-values for both sub-markets are lower than the LS-values for the total domestic market, as represented in table 19.

The number of firms together constituting the Oligopolistic Arena is the smallest for the bottled beer-market.

This indicates, that there exists in this sub-market a narrow oligopoly with great inequality, as  $LN^*m$ -values demonstrate. The oligopoly in the kegged beer sub-market is of a more wide and equal character.

### 3. The structure of Distribution

#### 3.1 General Remarks

As mentioned before, sales of beer to common households became important only after World War II. Until then all selling-efforts of breweries were directed at selling beer to public places, chiefly café's.

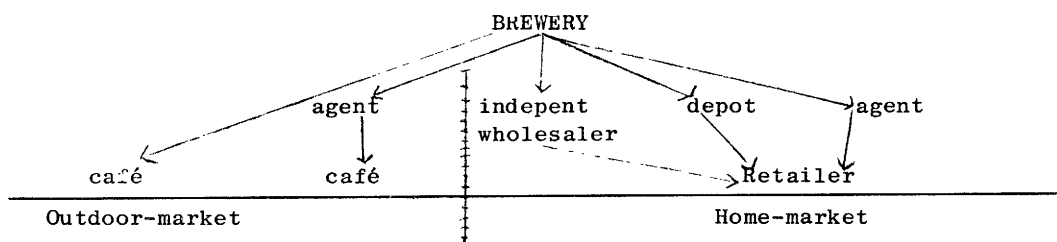
The traditional distribution-structure consisted of the following links:  
brewery - beer-agent - café.

Like firms in other trades, the breweries always attempted to eliminate the wholesale-link as much as possible. This was done by means of tying beer-selling to the provision of the café's with credits. Thus the café was obliged to buy beer from the brewery, of which it received credits. Under these circumstances the only type of wholesaling which could develop was the brewery-dependent agent. Unable to behave as the café's bankers and curtailed of their commercial independency, they represented in fact a vertically integrated wholesale- link.

The recent distributional structure is represented by figure 5.

Figure 5

The present structure of beer-distribution



Besides the beer-agent as a link in the distributionchain for home-comsumed beer, the brewery-owned depots have emerged as an integrated kind of wholesaling activity. Another new link in distribution is the (independent) grocery-wholesaler.



Grocery-wholesalers were first permitted to sell beer in 1948. Since that year large amounts of bottled beer were sold to the different kinds of wholesalers, thus breaking down the monopolistic position of the beer-agents. Agents were not equipped to compete in this new market, because of their exclusive ties with one brewery.

Thus the agent's position had declined, since bottled beer-sales have sharply increased. Today, supermarkets are the most important retail-institutions for selling beer.

Apart from the supermarkets, beer is also sold in independent groceries, greengroceries and dairies.

In contrast to the café or pub, retail shops are able to sell beers of several brands. Normally, they are not dependent on finance from the breweries. Given their more independent position, retailers are in a better position to exert price-competition than the café's.

The price-policy of the big breweries traditionally was to control the prices of leading brands all the way to the ultimate consumer.

This policy was the complement of the product-differentiation described earlier. Thus, until 1974 retail-prices were prescribed by means of individual resale price-maintenance arrangements. This price-policy collapsed through the actions of some dynamic supermarket-chains.

Before 1974, the leading supermarket-chains had started to sell beer under their own labels at prices much below the established brand-prices.

Thus the counter-attack by the supermarkets was mounted in two directions: they undermined the marketshare of the leading brands by means of their own brands of beer (acquired from smaller breweries) and they undersold the leaders in price. The latter actions involved them in legal battles during 1974, 1975 and 1976.

### 3.2 Wholesaling

In 1960 about 750 beer-agents and 600 other beverages wholesalers existed. The total number of wholesaling firms had decreased to 586 in 1974. The beer agent's position is a specific one. He is not able to behave competitively, because:

1. Agents are not able to acquire new café-customers on their own. Only the brewery can grant the facilities required to tie a new customer.
2. Sales-prices are (were) determined by negotiations between the Central Brewery Office and the retailing organisation. The agent's margins are determined at the same moment.

Considering the restraints imposed on the agent's efforts his activities better can be described as distributing than as selling. The importance of the beer-agents has decreased fastly in recent decades.

Apart from the specialist beverages wholesalers, the outdoor-market and the licensed retailers, general food and drink wholesalers operate, which supply the small unlicensed retailers.

The position of the specialist beverages wholesalers has declined as a consequence of the rise of the indoor-market. The general food and drink wholesalers sold 55 percent of all consumed beer in 1973. The specialist wholesalers took care of the remaining part.

Breweries have also integrated wholesaling. Deliveries to mutiple shop chains are generally done by the breweries themselves.

The breweries have a stake in specialised beer-wholesaling too. A considerable number of the 587 specialist beer-wholesalers are owned or controlled by the breweries. Heineken owns 50 wholesaling firms and Skol controls 20 wholesaling firms, mainly operating under the name Citadel. Stella Artois established recently its own wholesale-organisation, named Omnidrink.

Omnidrink contains 15 wholesaling firms. Grolsch also has its own wholesaling organisation.

Specialised wholesale-organisations, belonging to the breweries, not only integrate beer-distribution but also open the possibility to the breweries to diversify into the spirits-and wine-market and the soft-drinks market.

Most brewery-owned wholesale firms were independent before and got under brewery's control by means of take-overs.

Another phenomenon is the integration of the wholesale-function by retailers.

A large number of small unlicensed retailers selling beer have joined an organisation, which performs the wholesaling-function on their account.

Several types of organisations can be distinguished.

- Voluntary multiple-shop organisations, like the Spar.

In such organisations one or more wholesalers and a number of retailers cooperate. Both wholesalers and retailers maintain independency, but by means of cooperation they are able to grasp the advantages of big retailing, like large-scale advertising, wholesaling, central administration and so on. In 1972 8 voluntary multiple shop organisations existed in the Netherlands, in which 114 wholesalers and 7500 retailers cooperated. Together, wholesale-firms of this type had 50 percent of non-integrated grocery-wholesale turnovers.

- Retailer's buying-organisations. In contrast to voluntary multiple shop firms retailers of this type operate under their own name. Buying-organisations have founded wholesale-establishments, which are exploited on a collective basis. These organisations also give assistance to connected retail members in several respects as do the voluntary multiple-shop organisations. Buying-organisations of grocery-retailers are of a smaller magnitude than voluntary multiple-shop firms. In 1972 2200 retailers were connected which exploited 25 wholesale-establishments. The marketshare of these wholesalers amounted to 10 percent of non-integrated grocery wholesale turnover in 1972.

Voluntary multiple shop-firms and buying-associations in retailing emerged chiefly as a reaction to the overwhelming growth of supermarkets and consumermarkets. In time they have grown into really vertically integrated organisations which perform many managerial functions for the associated members.

Besides the above mentioned vertically integrated wholesale-categories, two other types exist in the Netherlands: independent wholesalers, which cover 20% of non-integrated, non-specialised sales and count 175 firms.

Another category are the combined wholesalers, which carry a large product-assortment. The latter group sells some 18% of non-integrated grocery-turnovers and comprises about a hundred firms.

As in many vertical integrations, the leading brewers aim at a control of their regular distribution and call upon the independents under exceptional circumstances. In its 1975 annual report Heineken stated: "A good cooperation with the indepent wholesaler is important, especially at peak demands."

### 3.3 Retailing

#### Some general remarks

In discussing beer, retailing two different kinds of shops have to be distinguished as a preliminary. Alcoholic beverages and liquors were traditionally sold by the licensed victualler. To sell beer however, a license is not required and therefore, unlicensed retailers like groceries and dairies could incorporate beer in their basket of articles. Beer can now be bought at some 39.000 retailing-outlets.

As beer has become a common product, groceries and dairies and in particular supermarkets, have been able to gain the greater part of the take home beer-market. The house-wife, doing her daily or weekly shopping, buys beer together with other grocery-products in such shops.

Beer sales, measured in volume-terms, have increased by more than 100% during the 1964-1973 decade (table 31). Wines and spirits too experienced a rapid rise in volume sold. Sales of alcoholic beverages, measured in value-terms increased at an annual rate of 14% during the 1969-1974 period, a rise equal to the money increase of total personal income.

This matching of beverages-sales contrasts with the growth of total food-sales, which lagged behind the growth of total personal income. As a result food-sales decline from 35 percent of total consumer expenditures in 1964 to 26 percent in 1973.

Table 29

Index-numbers of beer-sales, measured in volume - and in value terms.

1964=100.

<u>Year</u>	<u>Volume-growth</u>	<u>Value-growth</u>
1964	100	100
1967	127	146
1970	164	203
1971	178	235
1972	188	249
1973	210	279
1974	218	304
1975	229	n. a.

### 3.4 The licensed retailer

Table 30 gives the evidence relating to numbers of retailshops and their marketshare in bottled-beer sales.

Table 30

The evolution of licensed retailshops and their marketshare of bottled beer sales.

<u>Year</u>	<u>Number of shops</u>	<u>Licensed sales as a percentage of bottled sales (at current prices)</u>
1970	3.720	16.3
1972	3.869	16.2
1973	3.830	16.1
1974	3.807	15.6
1975	2.750	15.2

Sources: EIM "Het Slijtersbedrijf", 1972, Produktschap vppr bier, Annual reports.

The table demonstrates, that the marketshare of licensed retailers is declining. The number of licensed retail-shops has increased until 1972. Apart from the rapid rise of beer-sales, this increase was due to a widening of the law, which occurred in 1965.

The number of licensed shops used to be legally tied to the number of inhabitants of a certain region or city area. Differentiating between one-shop firms and multiple shop firms, it is to be recognized, that multiple shop-firms have experienced the largest increase in numbers. There were 2447 one-shop firms in 1964, which number had grown to 2710 in 1974.

On the other hand, the number of shops belonging to a chain more than doubled during the same period. Multiple shop firms exploited 535 establishments in 1964 as compared to 1097 establishments in 1974.

Thus the percentage of licensed shops, being part of a chain, increased from 17 percent in 1964 till 29 percent in 1974. Also their share of bottled beer increased relatively, since overall growth advanced - as we have seen - by 14 percent per annum and those of one-shop retailers increased by 8 percent. It is only due to the rapid growth of demand for alcoholic beverages that one-shop retailers could increase in numbers and absolute sales.

But their prospects are considered to be rather bleak, due to the abolishment of vertical price maintenance and the ensuing fiercer price competition.

According to a report of the Economic Institute for Middle-sized and Small firms (EIM), published in 1976, the number of licensed retailers has to be halved in coming years.

### 3.5 Unlicensed retailers

It is the group of unlicensed retailers who gained the greater part of the market for home-consumed beer (table 32). They almost had 85 percent of this sub-market in 1975. A comparison of growth-rates of the two types of beer distribution-outlets also makes clear the different performance.

Table 31

The growth of beer-sales via licensed retailers and unlicensed retailers  
(measured in hectoliters; annual percentage increase on previous year)

	<u>Licensed retailers</u>	<u>Unlicensed retailers</u>
1970	10	15 to 20
1973	12	13
1974	4	13
1975	4	16

Source: EIM; Annual reports "Produktschap voor bier".

Within the group of unlicensed beer-retailers only groceries and super-markets will be further investigated. Beer is also sold in dairies and greengroceries, but the importance of these distribution-outlets is small and diminishing, as a result of the vanishing boundaries between the different retail-outlets for food-products. By enlarging the number of articles sold in dairies and greengroceries these retailers have become wide ranging food-shops. Those traditional shops, especially dairies, who have not adapted themselves, have disappeared by now.

The shops, selling grocery-articles may be divided into two main groups:

I- multiple shop chains, shops belonging to a cooperation and big shops.  
 II- independent firms and small chains, including retailers, associated with collective buying organisations or belonging to voluntary shains. The following table shows the evolution of the number of establishments in both categories.

Table 32

The evolution of the number of unlicensed retailers, according to size-categories

<u>Year</u>	<u>Group I</u>	<u>Group II</u>
1963	2462	20.883
1968	2158	17.805
1970	2057	15.570
1972	2696	12.612
1974	2923	11.085

Source: EIM "Het Kruideniersbedrijf" 1969 and 1974.

The decline in the number of shops belonging to group I until 1970 is due to a large extent to the reduction of shops belonging to a cooperative chain. The dutch cooperative movement got into financial difficulties in the early seventies.

As table 34 demonstrates the majority of unlicensed retailing shops still belongs to the group of one-shop firms and small chains. The distribution of establishments to numbers, however, does not correspond to the real magnitude of the two groups, according to beer-turnovers.

Shops belonging to the big-chain organisations are more important beer-sellers than the one-shop firms and small chains. Marketshares of the two groups are given in tabel 35. The data refer to the situation at 1-1-1976.

Table 33

Marketshares of beer sold in groceries for various size-classes

Group I	63 %
Group II	37 %
of which shops with a total turnover of 365.000-920.000 florins	20 %
shops with a total turnover of less than 365.000 florins	17 %

Source: Bureau Nielsen.

It can be seen, that firms belonging to group I are approaching a two-third's share of beer sales, sold via groceries.

The classification, uses in table 33, is not strictly comparable to the classification used in table 32. Group I used in table 32 comprises outlets with turnovers larger than 1 million florins.

There are two large chains of supermarkets operating on a national scale and several chains of so-called consumer-markets, which have locally or regionally confined activities.

The biggest supermarket chain (Albert Heijn) has about 50% of total sales of these two categories taken together.

Beside beers of the well-known brands, these chains sell beer under their own firm-name or carry unknown brand-names. Prices of such beers are considerably below those of the well-known brands.

In recent years a back-ward integration movement carried out by these leading chains can be observed. Beer - produced by small independent breweries under wage-contract conditions - is increasingly promoted by these retailing-organisations.

#### 4.0 Aspects of behaviour and performance

##### 4.1 Cartel-agreements in the Dutch beer-industry

Cartels and other less formal agreements are often an indication of non-competitive behaviour. A cartel has detrimental effects on competition, when agreements concerning price, facilities, quality or other parameters replace the uncertainty, existing previously with respect to these parameters in individual company behaviour.

Before stable cartel-agreements can emerge a certain degree of product-uniformity and (horizontal) concentration have to be attained.

These conditions were fulfilled in Dutch brewing at the beginning of the twentieth century.

Bottom-fermentation had led to a rather homogeneous product and new production-techniques together with fierce facility-competition had resulted in a sharp increase of concentration.

In 1902 the "Bond van Nederlandse Brouwerijen" (Dutch Brewer's Union) was established. All big breweries, but two were organised by this cartel.



Regulations with respect to several parameters of behaviour were made by the cartel and controlled by the cartel-office.

These agreements were not limited to beer-producers but included beer-wholesalers too, as well as margins and obligations of the beer-agents.

Minimum-prices for the different beer-types and quantity-reductions given to buyers were prescribed by the cartel, but more important than price-agreements was the agreement regulating facilities, especially credits. The facilities-agreement contained a uniform interest-rate on loans and certain requirements with respect to the solvability of café-owners. Market-segmentation came out as a result of the obligation posed upon café-owners to buy beer from the brewery which had given financial assistance. Cartel members agreed mutually to respect the outlets acquired in this way. In 1938 the "Centraal Brouwerij Kantoor " (Central Brewery Office) was founded. This office took care of collective barley-purchasing. All breweries but one are members of the Central Brewery Office. Besides central purchasing and distribution of barley, the CBO also surveys competition regulating agreements. The best-known regulation is the Beer-Price Agreement of 1947. By this agreement beer-prices were collectively determined from producer till consumer.

The price-agreement expired in 1956 at the request of the Dutch Ministry of Economic Affairs.

From that year onwards individual vertical price-arrangements came into existence. Regulation of facilities was practised during the fifties by the "Gentleman's Agreement on Facilities". Market-segmentation had taken the shape of delivery contracts between the breweries and their café-customers. The Central Brewery Office collects monthly sales- and other data of member-breweries, specified according to beer-types and regional markets. These statistics are distributed amongst the members of the Office. In this way every brewery is fully aware of its own and of competitors' marketpositions and of the changes there in. The Central Brewery Office thus acts as an information cartel.

Information about the bottled beer-market is collected by a commercial market research office. Monthly studies of the evolution of bottled beer-sales differentiated according to retail-outlet are made at the request of the big breweries. Such information is made available to small breweries at a moderate price. Outsiders can dispose of it only at an extremely high price, however.

Although collective vertical price-agreements were forbidden by the Government in 1956, individual vertical price maintenance continued its life

until well into the seventies. Such arrangements are not illegal. Since 1974 the big breweries one after the other were forced to abandon price-maintenance by the low price-actions of some retailers.

#### 4.2 Prices

Generally the demand for a product is influenced both by changes of the product's price and by changes of real income. The rapid increase of beer-consumption per head in the previous decades can be ascribed for the larger part to the rise in real incomes.

Prices may not be neglected fully, however. The appearance of low-priced beers, sold by the supermarkets, will have contributed to the rise of beer-consumption.

Consumption of beer is expected to rise further in the future.

Whether its growth will continue at the same rate, however, is doubted by some experts. Other experts prospect consumption-levels of 100 liter a head or more in 1980.

Such expectations are chiefly based on the low levels of dutch per capita beer-consumption as compared with those of other countries.

Whether this expectation will be fulfilled depends to some extent on the development of prices in coming years. In the post-war period beer price-rises have lagged behind other price-increases.

Table 34

The development of beer-prices in the Netherlands (prices are in Dutch cents)

	1939	1973	1974	1975	index 1975 1939 = 100
Glass (outdoor)	20	95	100	110	550
Bottle of 30 cl	15	51	54	57	380
Bottle of 45 cl.	19	68	74	77	405
Overall consumer level index	100		+ 619	+ 680	

Source: Annual Reports of the "Produktschap voor bier".

Table 34 indicates, that beer-prices have risen less than the overall consumer price-level. The most important event in recent years was the abandonment of the systems of individual vertical price-fixing in 1974 and 1975. This break-through was initiated by some medium-sized chains of consumer-markets and cash and carry shops. The established supermarket chains, like Albert Heijn, followed only hesitatingly. Apparently they did not want to upset their relationship with the leading breweries.

At first, the big breweries resisted this break-down fiercely. Several legal proceedings were undertaken against the price-cutters in 1974. However, at the beginning of 1975 Heineken had to give in and abandoned the system of vertically fixed prices. Its marketshare was threatened. Prices are now determined at the retail level and differ from one shop to the other. The prices given in table 34 are those as advised by the breweries. Really paid prices may be even lower depending on the retailer where the beer is bought.

Thus, a limited investigation in a particular Amsterdam shopping quarter shows that price differences are important. Results are presented in table 45. The five shops investigated can be shortly described as follows: Two shops belong to a multiple shop retail organisation (Albert Heijn) but operate under different names : Albert Heyn and Simon. One recently established shop is part of a licensed retail chain of three shops all situated in Amsterdam. Another shop belongs to a chain of consumer-markets, called Dirk van der Broek. The last shop is a small, independent grocery-shop.

Table 35  
Beer-prices\* in an Amsterdam shopping quarter

<u>Organisation</u>	<u>Brands</u>	<u>Price in Dutch cents</u>
<u>Albert Heyn</u>	Heineken	84
	Albert Heyn (Skol)	59
	Grolsch	76
<u>Simon</u>	Heineken	79
	Simon	59
<u>Dirk v.d. Broek</u>	Amstel	65
	Grolsch	75
	Export (Bavaria)	49
<u>Licensed retailer</u>	Heineken	70
	Grolsch	74
<u>Independent grocery</u>	Heineken	80
	Class Royale (import)	60
	Bavaria	60

\*All prices refer to half-liter bottles. Grolsch bottles contain 0,45 liter. Only the brands, sold at one moment in time are included.

The most remarkable conclusion to be drawn from table 35 is that Heineken, the most dispersed beer in Holland, is sold at quite different prices.

The difference between the highest and the lowest price paid for Heineken amounts to 14 cents, being 20 percent of the lowest price.

The price differences for Grolsch beer are the least.

All shops, except the licensed retailer, sell at least two brands, a well-established one and an unknown one, at considerable price-differentials.

Thus it appears that price discrimination with respect to distinguishable marketsegments and price-variation according to type of outlet and locality have become a common policy.

#### 4.3 Stability of marketshares

To get an impression of the competitiveness of behaviour in dutch brewing, the evolution of marketshares of firms, divided into several size-classes is presented in table 36.

Departing on the assumption, that competition in an industry will lead to a reshaking of marketshares with gains for the most competitive firms, a comparison of marketshares in time can elucidate some aspects of the competitive process. Table 36 has been drawn with this idea in mind.

Table 36

Evolution of marketshares of firms in the dutch beer-market, divided according to size-classes

Category	Sales in mio florins	Number of firms		Marketshares (var. sales)	
		1970	1974	1970	1974
1	> 300	1	1	54.3	54.8
2	100-300	0	2	-	26.8
3	25-100	3	2	31.4	10.1
4	10-25	3	1	8.5	2.2
5	2-10	2	2	1.25	1.3
6	others	<u>5</u>	<u>4</u>	<u>4.55</u>	<u>4.8</u>
		14	12	100	100

It becomes apparent, that the largest firm maintained its marketshare at almost the same level. The number of firms in the three lowest size-classes diminished by 3 and their marketshare decreased from 14.3 to 8.3 %.

The number of firms in the three highest classes increased by one and their total marketshare by 6%.

Shifts, occurring in size-classes do not tell the whole story, for by the large growth in turn-overs, which amounted 60% in the 1970-1974 period, firms automatically move to larger size-classes. Therefore a more accurate way to measure changes in marketshares is to compute a mobility-coefficient. In this computation marketshares of all firms at the beginning and at the end of the investigated period are compared. The mobility-index used is of the following mathematical formula:

$$F_m = \sum_{i=1}^n di$$

di indicates the differences between marketshares of individual firms in time. Put into symbols:

$$di = \left| a_i(t) - a_i(t-1) \right|$$

In 1974 a merger occurred. Taking this merger into account, the value of the mobility-index amounts 0,08. Neglecting the merger, the value of the mobility-index decreases to 0,07.

The maximum-value of the index is 2, its minimum 0. Mobility in the beer-industry is thus very low. The largest shifts, in contrary directions however took place at the firms, ranking 2 and 3.

#### 4.4 Profitability

Profitability-figures of the two firms will be given in the proceeding lines.

Profitability is not an unambiguous concept. A high profits-sales ratio may be the outcome of both a competitive process, being beneficial to consumers and the abuse of a powerful position by a dominant firm. To reach final conclusions, more variables have to be taken into account, like prices, investments in new technology a.s.o.

Table 37

Net profits as a percentage of sales<sup>+</sup>

<u>Year</u> <sup>*</sup>	<u>Heineken</u>	<u>Skol</u>
1971	7,7	1,6
1972	6,9	1,6
1973	5,8	2,0
1974	5,1	1,6
1975	3,8	1,5

Table 38

Cash flow as a percentage of sales

<u>Year</u> *	<u>Heineken</u>	<u>Skol</u>
1971	10,5	6,3
1972	11,8	6,0
1973	11,3	6,3
1974	10,8	5,3
1975	9,2	5,2

Source: Annual reports Heineken and Skol

+ Sales are consolidated firm -sales, thus non-beer sales are included

\* Book-years run from october-october f.i. 1971 means oct. '70-oct. '71.

The Skol-data refer to the subsidiary Skol/Holland. Data of Grolsch, the third dutch brewery can not be given, because Grolsch is a family-firm and therefore is not obliged to publish annual reports.

Net-profit rates of Heineken have been steadily declining. Skol has maintained its net profit rate at almost the same, but lower level throughout the period.

The cashflow concept used here, consists of net profits + depreciation allowances, akin to the method used by Heineken in computing cash flow figures.

A comparision of the two tables learns, that depreciation allowances of Heineken, measured as a percentage of sales are much larger than those of Skol. To show to which degree share-holders have been benitifed by net profits, dividends as a percentage of net profits are computed in table 41.

Table 39

Dividends as a percentage of net profits

<u>Year</u>	<u>Heineken</u>	<u>Skol</u>
1971	28,7	54,8
1972	29,9	35,4
1973	31,5	no dividends paid
1974	30,7	no dividends paid
1975	35,3	no dividends paid

Source: Annual reports.

It is striking, that Skol starting at a high % of net profits paid to shareholders, stops paying dividends in 1973.

During the last three years Skol has added all net profits to reservations and no dividends were paid. Skol keeps all the money in the firm to make (depth) investments and guarantee the future existence of the firm. as is declared in the annual reports.

Another interesting ratio is the investment to sales ratio. Taken together with the cash flow/sales ratio it gives an indication how firms use the funds, they have at their disposal.

Table 40

Domestic investments as a percentage of sales

<u>Year</u>	<u>Heineken</u>	<u>Skol</u>	<u>Grolsch</u>
1970	3	6,5	10
1971	6	4,6	5,3
1972	7	9,5	27,5
1973	8,5	5,4	6,1
1974	4,8	7,6	19,7

The high fluctuations of investment-figures are due to the irregular pace in which investments are carried out. Heineken has built a new brewing-plant in Zoetermeer during the last few years. Skol has been engaged with acquisitions in recent years, all acquisitions relate to non-beer activities, like soft-drinks, liquors and wholesale-trade.

Grolsch has been by far the largest investor, if related to sales.

Remarkable is, that Heineken spends least on investments, related to sales of the three breweries.

The relatively low investment volume of Heineken may be explained by the active expansion, Heineken is realizing in foreign countries and on non-beer products. Foreign sales grew faster than domestic sales. Beer sales of Heineken in the Netherlands grew by 61% in the 1970-1974 period. Total sales of Heineken taken on a world-scale increased by 153% in the same period.

Beer-sales of Grolsch have increased by 86,7 % in the years 1970-1974, thus leading to a higher marketshare of Grolsch in 1974, compared to 1970. As table 40 shows, great investment-efforts are made by Grolsch in order to achieve these results.

Beer sales of Skol/Holland have grown by 43% during the investigated period, making Skol the smallest grower of the three breweries in this way.

Another criterion, that can be used as an indication of a company's profitability is the course of its quotations on the stock exchange.

It has to be kept in mind, however, that apart from profits, expectations of future profit and growth play a large role in these quotations.

In table 41 Stock Exchange-quotations for Skol/Holland and Heineken are compared. The dutch Skol-subsiary of Allied Breweries is the main part of its International Division, which covers about 10% of total sales of Allied Breweries.

Table 41

Profit pro share and quotation-courses of Skol/Holland and Heineken

Year	Net Profits pro share of 25 Dfl.		Quotation courses	
	Heineken	Skol <sup>+</sup>	Heineken in Dfl.	Skol <sup>*</sup>
1970	7,44		131	99,25
1971	8,90	9,57	176	115
1972	11,68	10,60	273	134,7
1973	8,55	14,50		113,3
1974	8,76	13,50	192	87
1975	7,64	3,76	138	85
1976 (jan- feb)			149	

Sources: Investments-publications of the ABN (a bank), Annual reports Skol

\* Quotation-courses refer to quotations of Convertible Skol Bonds

+ Computed from Skol Annual Reports. Share capital grows suddenly in 1975, because of conversion of bonds into shares.

Beside Heineken shares and the convertible bonds of Skol no stocks of dutch breweries are quoted on the Stock Exchange.

The quotation courses are yearly averages . The years 1972 and 1973 were peak-years both for Heineken and for Skol. At the moment (october 1976) the course of Heineken shares has returned to its 1970-level and amounts 133. Skol bonds quote 81,50 in october 1976 and in this way has fallen below its 1970-level.

Although dividends paid by Heineken have been steadily rising from 2,31 Dfl. in 1970 till 3,50 Dfl. in 1975 pro share of 25 Dfl., course quotations have not kept pace with the sound financial results Heineken has attained. Therefore it appears that course quotations van not be used as a reliable indication for profitability.

Summing up the information given in this paragraph, it becomes obvious,



that Heineken has been more profitable than Skol, both in relation to net profits and to cash flow figures. Data of other dutch breweries were not available, unfortunately. Heineken is a generous dividendspayer, but not a great investor, at least not in the Netherlands. It is not possible to draw definite conclusions from the presented data with respect to the industry's behaviour.

#### 4.5 Advertising

Advertising as an aspect of firm behaviour will be looked upon now. We may describe advertising as an attempt to non-physical product differentiation. Apart from collective advertising-campaigns, which for beer were executed during the fifties and early sixties, by means of advertising a firm tries to create a distinctive market for his own brand product. If a firm succeeds in establishing a market for his own, competition can be evaded.

What one needs with this kind of product differentiation is not a distinctive product, but the financial means to make it look distinctive. In this respect packaging takes an intermediate position. It is a kind of non-physical product-differentiation, attained by physical means. The traditional swing-stoppered bottle used by Grolsch, the third brewery in the Netherlands, is an attempt to create an image of traditionally brewed beer. Swing-stoppers are abandoned by other firms, because crown-corks are cheaper. Grolsch on the contrary fortifies in this way the traditional craft-image, it also exposes in advertising. Grolsch' advertising campaigns have been emphasizing traditionality and skillness in brewing for years.

Heineken has created an image for its Heinekenbrand of a beer, bringing joy and companionship to every-one who joins it.

Campaigns for the Amstel-brand are directed at associating Amstel-beer with good brewerhip and therefore with conscious, connoiseur-like drinkers.

Skol presents its brand as a good extra-hoppy beer, for which claim no proof seems te exist. The smaller brands do not advertise heavily.

Table 42 gives some evidence about the advertising costs, made by breweries in the Netherlands.

Table 42

Estimated Publicity Budget for Selected Brands of Beer in the Netherlands  
1971-1973 ( x 1000 Dfl.)

<u>Brand</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Heineken	1706	1841	1920
Amstel	1334	1292	654
Total Heineken	3040	3133	2574
Skol	n.a.	1149	893
Grolsch	1194	1242	1615
Stella Artois	n.a.	89	122
Brand	23	26	28

Source:Admedia.

It appears from table 42, that the three largest dutch brewing-firms are the main advertisers. Grolsch is a relatively large and Skol a relatively small advertiser. Advertising expenditures for the Amstel brand has diminished sharply. After being taken over by Heineken in 1969, the Amstel brand was given a new image at the expense of large advertising-costs. A positive relationship exists between an increase in advertising-expenditures and an enlargement of marketshare. Grolsch has increased its advertising-budget at the most rapid rate and is also the largest grower of dutch beer-firms.

Advertising-expenditures of Skol increased and Skol also experienced a decline in marketshare during the examined period.

Although no claims can be made from the data presented, that advertising efforts are the real cause of (increased) concentration, it surely is a contributing factor, which is worth attention.

Diversification

The direction and the magnitude of diversification of firms, participating in an industry is an important feature of that industry.

Diversification, in general, comes to the fore, when a firms sees shrinking growth-opportunities in its original market. This will be the case, when demand for the industry's product stagnates or declines. Another possible cause for pessimistic expectations, held by a firm is a marketshare of a size, that can not be enlarged easily anymore.

Although some people expect a slackening of the growth of beer-demand in the near future, the latter reason is a more important motive for beer-firms to diversify.

We've seen in preceding paragraphs that the marketshare of Heineken does not grow anymore and that Heineken is very reluctant to price-competition. It is more advantageous to this firm to expand on other markets than on its traditional beer-market. Diversification, therefore, has become a policy of increasing importance to Heineken.

When a firm diversifies, this means, that it will devote most of its selling efforts and innovative managerial capacities to the new markets.

How far have diversification-activities of breweries gone and how have they affected behaviour. With these questions the following paragraph will be concerned.

With respect to the first question, it can be noted, that the big breweries have diversified into other sub-markets of the beverages-market. At the moment Heineken is the first seller of soft-drinks and the second liquors-seller in the Netherlands.

Heineken achieved this position by taking over existing firms and bring them to expansion.

Heineken made attempts in 1976 to take over Bols, the largest seller of liquors in the Netherlands. These attempts however, did not succeed, because of the refusal of Bols' board of directors.

Now Heineken is expanding its liquor plant-capacities in order to gain a larger marketshare in this way. Apart from its activities on new dutch beverages-markets, Heineken is fiercely intruding into foreign beer-markets too.

Heineken owns breweries-subsidiaries in Europe, Africa, Asia and South-America, of which the non-european sales are growing fastest.

Heineken's activities on the new dutch markets will be described thoroughly in the reports on the dutch soft-drinks-industry and liquor-industry. Only a few indications of its efforts in these fields will be reported here.

Table 43

Developments of Heineken-sales in different markets in mio florins

index: 1970 = 100

	<u>1970</u>	<u>1974</u>	<u>index 1970=100</u>
World Beer Sales	550	1352	245
Dutch Beer Sales	304	507	167
Soft Drinks*	86	167	194
Spirits and Wines	23	206	895

Source: Heineken, annual reports.

\* Soft-drinks sales and sales of spirits are for the greater part domestic sales.

Table 43 shows, that sales of non-beer products and beer-sales in foreign markets rise faster than domestic beer-sales.

Sales of wines and spirits grew at a very rapid rate, due to Heineken's take-over policy of distilleries and wine-merchandises.

Heineken's total sales still consist for 78% of beer however.

Skol/Holland also operates on the markets of soft-drinks and wines and spirits.

It owns 3 soft-drink firms and 4 distilleries.

izg.

Report on Concentration in the  
Dutch Distilling Industry (1971-1974)

By

Maria Brouwer (ec.drs.)

Theo Pijnappel(ec.drs.)

under responsibility of Prof.Dr. H.W. de Jong

Nijenrode, "Instituut voor Bedrijfskunde"  
Breukelen

November 1976



## Introduction and conclusions

Consumption of spirits has increased at a rapid rate in the Netherlands in recent decades.

This development it has in common with other alcoholic beverages. Dutch consumption of beer and spirits trebled since 1960. Consumption of wine even grew to a level which was five times that of the volume consumed in 1960.

During the period investigated (1971-1974) sales grew by 30 per cent to an amount of 700 million florins in 1974. The number of employees remained rather stable between the levels of 2200 and 2400 people.

Consumption of foreign spirits grew faster than consumption of domestic spirits and also than exports. Foreign spirits increased their market-share till 15% of sales in 1974.

A large but diminishing number of firms participate in Dutch spirits-manufacturing. The largest four firms cover more than half of production however. Young geneva is the most popular spirit with a marketshare of about 50 per cent of domestic production. Other important domestic spirits are vieux (Dutch cognac), berries geneva and a spirit becoming popular called Beerenburg (a herb-bitter). The most popular foreign spirits are whisky and cognac. Concentration within the most important sub-markets is slightly higher than in the total market. Sub-markets of a smaller size, e.g. old geneva, advocaat, berries geneva and beerenburg are more heavily concentrated than the larger markets.

The research brings on that the most important factor explaining concentration in the Dutch spirits-industry are take-overs.

Thus, the largest firm, Bols, has enlarged its market share mainly by means of acquisitions. Heineken, the second spirits-manufacturer has entered the spirits-market by taking over some old-established firms with reputed brands. Firms of a smaller size too, have been active on the merger-frontier. Most acquired plants continued production after the take-over.

Brand-names of the acquired firms were kept and firms continued to advertise as heavily on behalf of these brands as of their "own".

Competition has been an unfamiliar phenomenon in the industry for a long time. The spirits-cartel and vertical price-agreements have controlled prices since the Second World War. Since 1967 a liberalization of the law has allowed more retail-outlets to be established. Alongside traditional licensed retailers, spirits-chains and discount-markets appeared. The first infringement on controlled prices was the introduction of "white" spirits. These were the spirits of unknown brands which were sold at much lower prices than the products of well-known brands. In 1975 the system of vertically controlled prices was disrupted by some retailers, who sold well-established brands at much lower prices. They started to sell geneva at prices of 10 florins or lower a bottle, while the officially fixed prices amounted to some 14,5 florins. In contrast to earlier court-judgments, legal proceedings were settled to the advantage of the price-cutting retailers. Manufacturers, wholesalers and a lot of retailers asked the Ministry of Economic Affairs to set a minimum-price. This request was granted and from the first of January 1976 on, minimum prices for the most important spirits-categories are operative. The minimum-price of young geneva is now between 13 and 14 florins a bottle, after a raise of excise tariffs.

#### Part I Production and consumption of spirits and liquors

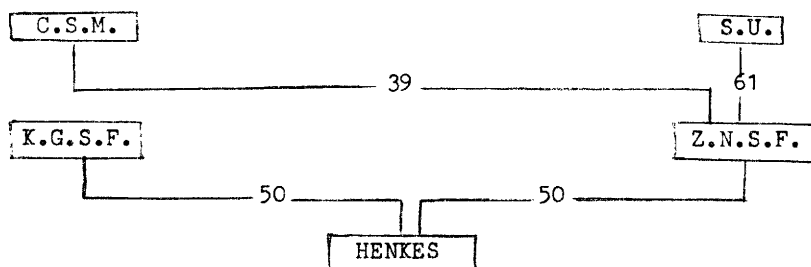
##### 1.1 Raw-materials

Basic raw materials used in the manufacture of spirits are malt wine, grain alcohol and molasses alcohol. Molasses and molasses-alcohol are a by-product of sugar production. It is therefore not a coincidence that the sugar-industry has an interest in alcohol-production.

The alcohol-industry presently consists of the following alcohol-manufacturers:

1. The "Zuid-Nederlandse Spiritusfabriek" (ZNSF) at Bergen op Zoom in the South of Holland. This factory is wholly owned by two sugar companies, SU and CSM, which are the only sugar manufacturers in the Netherlands. The "Suiker Unie" (SU) has an interest of 61 percent and the "Centrale Suiker Maatschappij" (CSM) one of 39 per cent in ZNSF. In addition, ZNSF has a 50 percent interest in "Henkes", the third spirits manufacturer.
2. The "Koninklijke Gist- en Spiritusfabriek" (KGSF) at Delft, a subsidiary-company of Gist-Brocades. KGSF has the other 50 per cent interest in Henkes.





3. A.K.Z.O. at Herkenbosch

4. De Koning at Schiedam, a subsidiary-company of Lucas Bols, Distilleries, largest spirits-manufacturer in the Netherlands.

The ZNSF, KGSF and AKZO co-operate in the "Spirits Verkoop Kantoor" at Rijswijk, a centralized sales bureau, which has monopolized the Dutch market for decades.

The Lucas Bols' subsidiary-company De Koning does not cooperate in this sales bureau. The output of De Koning fully covers the alcohol needs of the Bols distillery; redundant quantities are exported.

## 1.2 Manufacturing of geneva, liquours and advocat.

Malt wine, grain alcohol and molasses alcohol are the basic ingredients in geneva-manufacturing.

In fact the production of geneva is nothing more than a blending (mixing) of malt wine, grain alcohol and molasses alcohol which mixture is flavoured to perfection with herbs and juniper berries.

In former days several men were busy for days on end with the measuring and mixing.

Nowadays this measuring- and mixing-process takes place by means of a switchboard with various buttons to introduce a particular recipe, which opens and shuts various taps, thus regulating measured quantities.

Obviously, there are countless small differences among the various brands of geneva, and every distiller has his own secret recipe, handed down through generations, which he guards like his greatest treasure.

Manufacturing of liquours is a special part of the Dutch spirits distilling industry. The equipment of liquor-production essentially is the same as that which is used in geneva-production. Whereas geneva is composed of a limited number of raw material, liquours are made of, besides distillates of wine and grain, sugar, water and the aromatic extracts from numerous herbs, seeds roots and peels.

Another important product of the Dutch spirits distilling industry is "advocaat". There are two kinds, the genuine Dutch version, heavily emulsified (thick

advocaat), and the much lighter variety for export (thin advocaat). Basic elements for this typical Dutch drink are the fresh yolk of an egg, sugar and aromatic brandy.

The distinction between old and young geneva is in "old geneva, young geneva, "ladies"-geneva; it has to do with the higher proportion of maltwine to grain or molasses alcohol in old geneva. The old type has a somewhat stronger aroma and a light golden colour, whereas the young variety is rather more neutral in taste, quite clear and colourless.

When a Dutchman talks about a "small glass", he is thinking of a glass of geneva.

Before his dinner, after the daily rush of life, he likes to enjoy an "honest glass of geneva".

Young geneva is the most popular spirits-variety; growing demand of young geneva has partly been at the expense of old geneva.

Popular with the ladies is berries-geneva a gin flavoured with black currant juice; lemon geneva, a gin with lemon flavour which is often taken with a little sugar, and advocaat, a drink which is so syrupy, that it cannot be drunk in the ordinary way and has to be consumed with the help of a small spoon.

Liquours and cremes (liquours with a high sugar content) are drunk after dinner as pousse-café with coffee. They are also used in the preparation of pudding, fruit salads and as ingredients for cocktails. There are a lot of varieties:

cocoa and coffee-liquour, apricot brandy, peach brandy, cherry brandy, blackberry brandy, creme de menthe, etc.

### 1.3 Consumption

Despite the fact that spirits consumption is still on the increase, Dutchmen are moderate drinkers.

On the 1974 worldlist per capita spirits consumption, the Netherlands rank 13th with 2.75 litres at 100 per cent alcohol. Poland, Japan and the D.D.R. head the list with 4.0, 3.74 and 3.4 litres respectively.

As is shown in table 1, the Dutch spirits consumption has considerably moved ahead in recent years, stimulating both domestic production and foreign trade. This expansion - which may also be observed in most other West-European countries - can be related to both per capita expenditure by consumers and to

a greater acquaintance with alcoholic beverages, partly as a result of tourism.

Table 1: Apparent and per capita consumption of spirits, 1968-1975  
(at 100 per cent alcohol)

Year	Apparent consumption <sup>1</sup> (hectolitres '000)	Per capita consumption (litres)
1968	224	1.76
1969	242	1.88
1970	266	2.04
1971	279	2.11
1972	304	2.28
1973	343	2.55
1974	373	2.75
1975	463	3.39

1 = production + imports - exports

Source: Produktschap voor Gedistilleerde Dranken, Annual Report 1975, Schiedam, May 1976.

From 1968 to 1975 apparent spirits consumption increased by 107 per cent to reach 463,000 hectolitres at 100 per cent alcohol, that is to say an average annual increase of 13 per cent.

In the same period per capita consumption almost doubled.

As shown in table 2, the Netherlands are rather a spirits consuming country than a beer- or wine drinking country.

Table 2: Per capita consumption of spirits, beer and wine in E.E.C.-  
countries (1974).

Country	spirits			beer			wine		
	litres at 100 per cent alc.	rank		litres	rank		litres	rank	
		'73	'74		'73	'74		'73	'74
Netherlands	2.75	3	2	75.72	7	7	10.38	7	6
Belgium	1.90	7	7	133	1	3	15.8	5	5
Luxemburg	3.1	1	1	135	3	2	40.3	3	3
France	2.4	4	4	44.19	8	8	103.04	2	2
Italy	2.0	5	5	14.4	9	9	110.5	1	1
West-Germany	2.65	2	3	147.00	2	1	20.2	4	4
Gr.-Britain	1.54	8	9	114.3	4	4	5.33	6	8
Denmark	1.58	9	8	111.96	5	5	9.66	8	7
Ireland	1.92	6	6	86.74	6	6	3.6	9	9

Source: Produktschap voor Gedistilleerde Dranken, Annual Report 1975,  
Schiedam, May 1976.

#### 1.4 Exports and imports of spirits

Traditionally the Netherlands have been a large exporter of spirits. However, in more recent years imports have outgrown exports and since 1970 the Dutch spirits balance of trade shows a deficit.

Table 3: Imports and exports in volume and value (1968-1975).

	Volume		Value	
	(hl. '000 at 100 per cent)		(D.fl. mln.)	
	Imports <sup>2</sup>	Exports <sup>3</sup>	Imports <sup>2</sup>	Exports <sup>3</sup>
1968	70	35	24	41
1969	109	56	41	45
1970	103	60	49	50
1971 <sup>1</sup>	70	28	50	40
1972 <sup>1</sup>	84	60	60	49
1973 <sup>1</sup>	63	49	65	57
1974 <sup>1</sup>	80	79	79	79
1975 <sup>1</sup>	136	57	115	69

1 = exclusive imports from and exports to Belgium/Luxemburg  
2 = inclusive imports for export-purposes  
3 = exclusive deliveries to ships and aeroplanes.

Some correction on table 3 should be provided by taking account of imports, destined for re-export after some processing. Spirits imported for this purpose are wine distillates from Greece and France, wodka and rum. The magnitude of imports, destined for re-exports is shown in table 4.

Table 4: Imports destined for re-export.

	Volume	Value
	hl. '000 at 100 per cent	(D.fl. mln.)
1970	61.1	8.6
1971	28.3	3.4
1972	40.1	5.4
1973	14.2	1.2
1974	24.3	3.3
1975	66.5	21.1

Source: Produktschap voor Gedistilleerde Dranken, Statistiekmapje betreffende de Nederlandse invoer van gedistilleerde dranken, Schiedam, February 1972 and April 1976.

Consumption of foreign spirits is increasing and has grown to 16 per cent of apparent consumption in 1975.

Table 5: Apparent consumption of spirits broken down by Dutch and foreign spirits.

Year	Apparent consumption			
	Dutch spirits		foreign spirits	
	hl. at	percentage	hl. at	percentage
	100 %	share	100 %	share
1968	203	90.6	21	9.4
1969	212	87.6	30	12.4
1970	225	84.6	41	15.4
1971	235	84.2	44	15.8
1972	257	84.5	47	15.5
1973	291	84.8	52	15.2
1974	313	84.2	60	15.8
1975	388	83.8	75	16.2

Source: Produktschap voor Gedistilleerde Dranken, Annual Report 1975, Schiedam, May 1976.

The main spirits imported are whisky and cognac respectively from the UK and from France. Imports of whisky are increasing at a very rapid rate in recent years. Whisky imports rised by 40 per cent in 1975 and surpassed the value of cognac imports in that year. Whiskies had a share of 26,5 per cent of total imports, imports of cognac came to 25.1 per cent. The third important category are liquors with a share of 9.8 per cent. Most liquors also come from France.

Foreign spirits are imported by Dutch distilleries and by wine merchandisers . Big distilleries such as Heineken have penetrated the market of imported spirits by acquiring merchandise houses, but also large independent merchandisers exist.

By taking over Reuchlin, Heineken has a.o. become the sole importer of Jägermeister, a German liquor of increasing importance on the Dutch market. Skol's most important foreign hands are Cointreau and Romanoff Wodka. Bols is the official importer of Ballantine's whisky, Courvoisier cognac, Hennessy cognac, Jameson whisky and Appleton rum.

Untill 1968 every foreign spirits-brand was solely imported by one (official) importer. By a softening of regulations concerning imports of foreign spirits in 1967, parallel imports of foreign spirits became possible. Since that date parallel imports by non-official importers have become a wide-spread phenomenon. Such imports have lowered consumer-prices considerably, reaching a level which is hardly higher than that of Dutch spirits like geneva. Whiskies in particular are sold at low prices.

The main export-products of the Dutch distillingindustry are advocaat, liquors and geneva. (Table 6).

Table 6: The evolution of the composition of Dutch exports, in percentages of export-values.

Type of spirit	%			
	1967	1970	1973	1975
advocaat	44.6	33.2	38.3	37.7
liquors	27.7	29.8	29.2	24.1
geneva	18.9	15.2	12.9	19.6
dry gin	1.2	1.1	1.7	1.7
whisky	2.0	1.8	1.2	0.6
other spiri <sub>t</sub> s	5.6	18.9	16.7	16.3

Source: Dutch export statistics of the "Produktschap voor Gedistilleerde Dranken".

Great Britain is the main receiving country of Dutch spirits exports taking 36 per cent of total exported spirits and 76 per cent of advocaat exports. The second importing country is Western Germany with a share of 15 per cent in 1975. The larger part of exports to W.-Germany is of an irregular character (a.o. shipments to foreign army forces).

Part II The structure of the spirits-branch in the Netherlands.

2.1 Introduction

The Dutch distillery industry is characterized by a large number of companies. In 1971 the industry consisted of 161 companies of which 41 had 10 or more employees. In 1975 the total number amounted to 132, of which 33 companies had 10 or more persons (see table 7).

Table 7

Year	Total number of distilleries	Distilleries with	
		10 - 50 persons	50 or more persons
1971	161	28	13
1972	160	23	13
1973	147	24	10
1974	137	35	35
1975	132	33	33

Source: C.B.S., Produktiestatistieken: Distilleerderijen en Likeurstokerijen 1972 + 1973, The Hague;

C.B.S., Statistisch bulletin, The Hague, March 23, 1976;

C.B.S., Statistisch bulletin, The Hague, August 17, 1976;

Produktschap voor Gedistilleerde Dranken (Spirits Board Annual Reports, Schiedam).

The large number of distilleries in the Netherlands can be attributed to the following reasons:

1. the simplicity of the production process; the production process is neither capital nor labour intensive nor know-how intensive.
2. The restraints upon competition by means of cartellization. The manufacturer's price was chosen in such a way, that all cartel-members could realize reasonable earnings. This led to a situation in which smaller distilleries were able to survive.

The developments in the production structure of the Dutch spirits distilling industry can be shown by means of the percentage distribution of domestic sales by size-class.

Table 8

Size-class in hectolitres	Domestic sales (volume), percentage share of each size-class					
	1970	1971	1972	1973	1974	1975
< 1,000	4.0	3.4	3.5	2.8	2.5	1.8
1,000 - 3,000	10.7	7.6	6.1	5.5	3.3	2.4
3,000 - 5,000	7.4	5.4	4.2	1.3	2.6	1.5
5,000 - 10,000	14.0	9.3	6.1	7.2	4.3	3.1
10,000 - 15,000	5.4	6.7	6.1	5.4	5.1	2.9
>15,000	58.5	67.6	74.0	77.8	82.2	88.3
	100.0	100.0	100.0	100.0	100.0	100.0

Source: Produktschap voor Gedistilleerde Dranken, Rapport over de enquête afzet gedistilleerde dranken in 1973, Schiedam, March 1974; idem in 1975, Schiedam, March 1976.

Table 8 shows the increasing importance of distilleries with an output of more than 15,000 hectolitres and, in particular, the reduced share of small and medium-sized companies.

The total number of distilleries, broken down to size-classes is presented in the following table.

Table 9

Size-class in hectolitres	Number of distilleries broken down by size-class					
	1970	1971	1972	1973	1974	1975
1,000	105	90	98	90	86	85
1,000 - 3,000	43	35	29	27	20	18
3,000 - 5,000	14	10	8	3	6	4
5,000 - 10,000	14	9	7	9	6	5
10,000 - 15,000	3	4	4	4	4	3
15,000	14	13	14	14	15	17
total	193	161	160	147	137	132

Source: Produktschap voor Gedistilleerde Dranken, 1974 en 1976.



Table 9 shows the receding number of distilleries from 193 in 1970 to 132 in 1975. We can also observe the decreasing significance in number of distilleries with a production size of 1,000 hl., 1,000 - 3,000 hl., 3,000 - 5,000 hl. and 5,000 - 10,000 hl. Distilleries with an output of 10,000 - 15,000 hl. are rather stable over years.

On the other hand, the number of distilleries with an output of more than 15,000 hl. increased from 14 in 1970 to 17 in 1975. The latter distilleries had a share of 88.3 per cent of domestic sales.

## 2.2 Concentration

Dutch spirits distilling industry is characterized by a large number of manufacturers with a vast assortment.

During the last decade a great number of distilleries were acquired by others or merged, but company-names and -brands were maintained. Due to this development, nowadays more brands exist than independent distilleries.

Several concentration-indices will be presented in the following pages. These indices were computed from data, collected at the central office of Statistics (CBS) in the Hague. Data of individual firms with respect to the variables: sales, employees, wages and salaries, gross investments, exports and domestic sales constitute the basis of the indices. The data were collected according to the following lines:

- only firms with more than 10 employees were investigated
- excise-duties were included in the variables sales and domestic sales
- sales-figures are exclusive of imports

An overall view of the industry is presented in table 10.

Table 10: The evolution of national variables 1971-1974 (1971 = 100).

	1971	1972	1973	1974
Number of investigated distilleries	39	36	34	33
Sales (x1000 fl.)	534,444	626,129	639,514	705,050
Index	100	117	119	131
Number of employees	2,163	2,364	2,283	2,272
Index	100	109	105	105
Wages and Salaries (x1000fl.)	41,566	53,555	62,362	64,421
Index	100	128	150	154
Wages per employee	19,217	22,654	27,316	28,354
Gross investments (x1000)	8,206	12,397	26,238	16,869
Index	100	151	319	205
Exports (x1000 fl.)	51,963	55,933	61,468	90,587
Index	100	107	118	174

### 2.3 The measurement of concentration

As the coefficients of the following tables demonstrate, concentration in Dutch distilling is quite high in spite of the large number of firms, operating in this field.

The industry consists of a few large firms and many medium-sized and small firms. The large firms have not gained in importance during the period investigated (1971-1974). Values of both absolute and relative concentration-coefficients have decreased for all variables, except investments.

#### Coefficients of dispersion

The coefficient of variation (V) and the Gini-coefficient (G) describe the degree of relative concentration within an industry. In the case of the distilling-industry variation-coefficients do not reach high values ( around 2.0).

Relative concentration as measured by the Gini-coefficient is higher.

G-values of most variables are between 0.65 and 0.75.

G-coefficients of gross investments and exports are higher and, moreover, in contrast to those of other variables increasing.

#### Concentration ratio's

The four largest firms have more than 50 per cent of all variables.

Absolute concentration therefore is high, but decreasing slightly over time.

The second group of four firms adds about 20 per cent to the share reached by the first four firms.

The remaining market is dispersed among a great number of medium-sized and small firms. The firms ranking 1 and 2 are Bols and Heineken. Heineken does not operate under its own name but uses the brandnames of the firms it has acquired: Bokma, Hoppe and Schiedamse Molen. The third distillery is Henkes, a subsidiary of CSM (central sugar company) and ZSF.

$CR_4$ -values are highest for exports and lowest for the variable employees. Generally speaking it may be stated that the four largest firms invest and export more than their relative share of total sales, employ less employees than the average firm, but pay them better. Their share of total wages and salaries is therefore more or less in balance with their share of total sales.

Concentration, as measured by the coefficients H and E is low. Some shifts did occur over time, but no clear pattern emerges.

#### Linda-coefficients

L-values confirm the main conclusions, drawn from other coefficients. Overall inequality is moderate, as indicated by the  $L_5$ -values, but a strong dominance of the largest one (sometimes two) firm(s) exists.

The main characteristics, that appear from L-values are

- Moderate and decreasing values for the  $L_5$ -index, with an average value of about 0.40 for most variables.
- Variables investments and exports do not fit into this pattern.  $L_5$ -values are high for both these variables and also more volatile.
- The number of firms, belonging to the oligopolistic arena is large, in most cases over twenty.
- The first firm occupies a dominant position, as indicated by  $N_h$  which reaches its maximum-value for the second firm. This means that the first firm has a leading position, with a great difference in market share between the first and the second firm. There are only a few exceptions, for example the variable domestic sales for half of the period.
- Dominancy (of the first firm) is rather pronounced with a lowest value reached of 0.73.
- The second maximum ( $N_n^*$  with its corresponding value  $LN_h^*$ ) is identical to the first maximum ( $N_h^*$ ) except for the variables gross investments and exports.

Summarizing the evidence with respect to concentration, we can say, that no important increase in concentration has occurred during the investigated period. Mergers thus did not contribute to concentration, but the intended take-over

(1976) of Bols by Heineken would have drastically changed the structure of the industry. More will be said about mergers in a following chapter. An explanation of the relative decrease of concentration may be found in the growing importance of cheap "white" spirits. Small distilleries evaded the price arrangements of the distillery cartel and sold their products at lower prices. The large retailers reduced the prices of well-known brands till the level of so-called "white" spirits. Thus it may be expected that these recent developments will lead to an increasing market share for the large firms and therefore to increasing concentration.

Table 11: Concentration coefficients of Dutch distilleries:

variable: sales

Year	N	V	G	CR4	CR8	CR12	H	E
1971	39	2.03523	.71905	58.10	76.26	86.40	131.85006	-111.48150
1972	45	1.92794	.70781	53.50	71.31	81.75	104.82085	-121.98059
1973	36	1.69276	.68342	53.77	74.45	85.01	107.37352	-116.91979
1974	35	1.70429	.69929	56.38	77.72	87.66	111.55976	-114.17440

Table 12: Concentration coefficients of Dutch distilleries:

variable: employees

Year	N	V	G	CR4	CR8	CR12	H	E
1971	40	1.83497	.66007	52.06	70.55	81.23	109.17804	-122.35145
1972	42	1.63873	.62368	48.92	65.38	76.08	87.74852	-129.45169
1973	41	1.64261	.62370	48.46	68.27	79.76	94.82513	-125.47990
1974	39	1.53901	.62370	48.46	68.27	79.27	88.64576	-126.36869

Table 13: Concentration coefficients of Dutch distilleries: variable: wages and salaries

Year	N	V	G	CR4	CR8	CR12	H	E
1971	38	2.26411	.72045	60.26	77.61	86.54	164.21616	-109.65095
1972	41	1.7241	.66488	58.60	76.76	87.78	128.14804	-112.02278
1973	41	1.96906	.67566	54.04	71.02	81.91	118.95565	-120.54742
1974	39	1.89438	.65610	52.10	70.31	81.32	117.65844	-121.03609

Table 14: Concentration coefficients of Dutch distilleries: variable: gross investments

Year	N	V	G	CR4	CR8	CR12	H	E
1971	40	2.13214	.70369	57.10	77.52	83.50	138.65081	-114.61789
1972	32	3.28078	.81511	79.02	87.84	93.49	367.60969	-76.46320
1973	27	2.77755	.83809	86.77	93.57	97.29	322.76981	-71.38482
1974	24	2.16485	.79402	80.44	95.13	98.00	236.94075	-80.01513

Table 15: Concentration coefficients of Dutch distilleries: variable: exports

Year	N	V	G	CR4	CR8	CR12	H	E
1971	12	1.77854	.75039	91.82	99.66	-	346.93341	-59.67888
1972	21	2.33492	.82744	89.02	97.69	99.53	307.23029	-67.77324
1973	20	2.18491	.80766	86.57	97.35	99.48	288.69080	-70.39125
1974	19	1.95343	.79344	87.36	98.77	99.95	253.46808	-71.93997

Table 22. Concentration coefficients of dutch distilleries

Variable: domestic sales

Year	N	V	G	CR <sub>4</sub>	CR <sub>8</sub>	CR <sub>12</sub>	H	E
1971	39	1.92282	.70216	56.71	75.76	84.95	120.44179	-166.30973
1972	43	1.89212	.70926	54.61	73.72	83.54	106.51470	-120.07998
1973	37	1.64073	.67326	52.44	72.44	83.19	99.78389	-119.59968
1974	36	1.59578	.68451	53.65	74.30	85.36	98.51415	-117.77343

Table 16. Linda-coefficients of dutch distilleries

Variable: sales

Year	$L_s$	$N^*$	$N_m^*$	$L N_m^*$	$N_h^* <$	$L N_h^* <$	$N_h^*$	$L N_h^*$
1971	.49047	38	18	.32955	2	1.07154	2	1.07154
1972	.40234	44	20	.26328	2	.80694	2	.80694
1973	.41261	35	16	.25790	2	.73536	2	.73536
1974	.41341	34	16	.29704	2	.89270	2	.89270

Table 17. Linda-coefficients of dutch distilleries

Variable: employees

Year	$L_s$	$N^*$	$N_m^*$	$L N_m^*$	$N_h^* <$	$L N_h^* <$	$N_h^*$	$L N_h^*$
1971	.36554	39	34	.24482	2	1.22803	2	1.22803
1972	.31221	41	32	.19180	3	.76919	3	.76919
1973	.31813	38	35	.21828	2	.80745	2	.80745
1974	.32196	37	29	.21419	2	1.16514	2	1.16514

Table 18. Linda-coefficients of dutch distilleries

Variable: wages and salaries

Year	$L_s$	$N^*$	$N_m^*$	$L N_m^*$	$N_h^* <$	$L N_h^* <$	$N_h^*$	$L N_h^*$
1971	.49214	37	34	.36601	2	1.77695	2	1.77695
1972	.50968	30	14	.31902	2	1.16162	2	1.16162
1973	.40333	40	30	.25779	2	1.16142	2	1.16142
1974	.40260	38	30	.24695	2	1.72355	2	1.72355

Table 19. Linda-coefficients of dutch distilleries

Variable: gross investments

Year	$L_s$	$N^*$	$N_m^*$	$L N_m^*$	$N_h^* <$	$L N_h^* <$	$N_h^*$	$L N_h^*$
1971	.44967	39	32	.29354	2	1.83448	2	1.83448
1972	1.40195	31	14	.78414	2	2.86531	2	2.86531
1973	1.26182	26	3	.92788	2	1.59577	26	2.17442
1974	.59742	23	2	.59742	2	.59742	23	2.00722

Table 20. Linda-coefficients of dutch distilleries

Variable: exports

Year	$L_s$	$N^*$	$N_m^*$	$L N_m^*$	$N_h^*$	$L N_h^*$	$N_h^*$	$L N_h^*$
1971	1.10366	11	5	.99405	3	1.18522	11	6.51994
1972	1.00072	20	3	.91369	2	1.08774	20	5.74041
1973	.98209	19	7	.91719	4	1.08590	19	13.72440
1974	.77150	18	4	.69875	2	.91470	18	22.23173

Table 21. Linda-coefficients of dutch distilleries

Variable: domestic sales

Year	$L_s$	$N^*$	$N_m^*$	$L N_m^*$	$N_h^*$	$L N_h^*$	$N_h^*$	$L N_h^*$
1971	.46042	38	18	.31622	2	.92182	2	.92182
1972	.39215	42	21	.29039	3	.70984	3	.70984
1973	.37018	36	18	.24031	3	.69716	3	.69716
1974	.35926	35	17	.24820	2	.73018	2	.73018

#### 2.4. Productmarkets

The market of spirits and liquors can be sub-divided into a number of product-markets. The most important product-markets are: young geneva, old geneva, lemon geneva and vieux (also called Dutch cognac). The degree of concentration in the product-markets will be determined by means of the concentration ratio's of the four and eight largest firms. Not all firms are included in the investigation. Firms with less than 10 employees were left out. This is not a big omission, as 99 percent of domestic sales are covered by the investigation.

The two most important product-markets are those for young geneva and vieux, together accounting for a share of total spirits production of 66 percent in 1974. A long term review of the changes in the composition of Dutch spirits production is given in table 23.

Concentration, as measured by the concentrationratio's has not increased during the period. In the case of lemon flavoured spirits it has even decreased.

The considerable degree of market fluidity, shown for all product-markets except that of old geneva indicates, that most product-markets are exposed to competitive pressures. An important cause of competition were the sales of "white spirits", i.e. non-branded spirits sold at much lower prices than the official brands.

Sales of "white spirits" grew from 10 percent in 1968 to 20 percent in 1974.

#### The changing composition of domestic sales of Dutch spirits<sup>+</sup> 1960-1973

Product	<u>% shares of the various products</u>		
	1960	1966	1973
Young geneva	37	35	48
Old geneva	19	10	4
Brandy	4	3	1
Lemon flavoured spirits	10	9	7
Dry Gin <sup>*</sup>	0,3	0,5	0,4
Vieux	18	32	24
Berries Geneva and other fruit-brandies	8	8	10
Liquors	2	2	2
Flavoured bitters	1	1	4

<sup>+</sup> Only spirits having an alcohol degree of 35% or more are included.

<sup>\*</sup> Only domestically produced dry gin is included.



The concentration ratio's for the product markets of brandy, dry gin, berries Geneva, liquors and flavoured bitters are not computed. Of these product markets only the markets of berries geneva a.s.o. and flavoured bitters are of quantitative importance. Heineken has an important stake in the market of berries geneva with its leading brand Coebergh. Beerenburg, a herb flavoured bitter is the most important product in the market of flavoured bitters. Sales of beerenburg are rising fastly. The leader in the beerenburg market is Uto with its (acquired) brands Sonnema and Plantinga. A small beerenburg producer, enlarging sales at a very rapid rate is Boomsma. Bols is also establishing itself in this expanding market.

2.4.1. Young Geneva

Young geneva is the most popular spirit in the Netherlands. It has a share of 35 percent of total domestic sales (imports included). Total spirits production of Dutch firms consisted in 1971 for 40 percent of young geneva. This share increased by a few percentage points to 43 percent in 1974.

The most important producer of young geneva is Bols. This firm is the market leader with a share of about 30 percent, which decreased only slightly during the examined period.

The second manufacturer is Heineken, which increased its marketshare by some 50 percent through major acquisitions in 1971. In this way the large difference in marketshare between Bols and Heineken was diminished.

Table 24 Concentration ratio's of the productmarket of young geneva Variable: domestic sales

year	Domestic Sales (x 1000 fl.)	Number of firms <sup>x</sup>	CR <sub>4</sub>	CR <sub>8</sub>
1971	203.127	34	62,6	77,5
1972	248.217	40	62,-	76,4
1973	259.820	32	60,9	76,5
1974	300.337	30	63,7	81,1

<sup>x</sup> firms with less than 10 employees are excluded

The value of CR<sub>8</sub> rose by 5 percentage points till 81 in 1974. This increase was wholly due to the acquisition of Legner by Coymans; the latter firm climbed to the third place by means of this action. The remaining 19 percent of domestic sales is dispersed among 22 small firms.

Marketstability

No shifts in rank order positions of the leading five firms occurred between 1971 and 1973. In 1974 the rank order positions shifted as a result of a merger. Rank order positions of the years 1971 and 1974 have been compared and market fluidity was measured by means of the Spearman coefficient. This index amounted to 0,6. (The maximum-value of this index with complete market rigidity is 1, its minimum-value 0.) This means that 40 percent of all possible shifts have taken place, an indication of only moderate positional shifts.

#### 2.4.2. Old geneva

Old geneva is a product of minor and declining importance. Domestic sales of old geneva amounted to 3,3 percent of total domestic sales in 1974. Heineken is the largest seller with a market share of about 30 percent. Bols sold almost as much as Heineken in 1971, but its sales declined more rapidly than total sales in this product market. The result was a lower market share for Heineken at the end of the period.

Other important sellers of young geneva are Wenneker, Henkes and Cooymans. The number of firms operating in this productmarket did hardly change. However, concentration, as measured by the indices  $CR_4$  and  $CR_8$  is high. This product market's structure may therefore be described as consisting of a few dominant firms, effecting the bulk of all sales and a tail of numerous small firms.

The evolution of the  $CR_4$  and  $CR_8$  ratio's shows the persistence of high concentration during the period with negligible changes both in an upper and in a lower direction.

Again, no great shifts in rank order positions did occur. The three leading firms maintained their positions until 1974.

Table 25 The evolution of concentration in the productmarket of old geneva  
Variable: domestic sales

year	Domestic Sales (x 1000 fl.)	Number of firms	$CR_4$	$CR_8$
1971	30.545	36	76.8	87.1
1972	28.451	38	76.5	87.1
1973	24.142	33	75.1	86.5
1974	21.651	34	74.3	87.1

### 2.4.3. Lemon flavoured spirits and liquors

Domestic sales of lemon geneva and sweet lemon spirits amounted to 37.7 million florins in 1974; this sub-market therefore accounted for some 6 percent of spirits sales.

Sales of of this group of spirits increased more than proportionately during the period under review. Chiefly, the medium-sized firms, gained the newly generated part of this growing market, mainly by means of promoting "white" spirits.

Sales of the largest firms grew little or even declined. As a result CR<sub>4</sub> decreased by 10 percentage points during the period.

The first place is occupied by Bols. This firm maintained its leading position, but its market share declined considerably to some 17 percent in 1974. The product market's structure was very unstable. Many and large shifts in rank order positions occurred. Besides Bols, Heineken has an important market share, while fast growing sellers are De Kuyper and Skol. Inequality diminished visibly during the 1971-1974 period. The leading firm was attacked by some fast growing smaller firms. Thus, apart from Bols, seven other firms nowadays participate in the division of the lion's share of sales in this submarket, each having a share lying in the range of 8 to 15 percent.

Table 26 The evolution of concentration ratio's of the product market of lemon flavoured spirits Variable: domestic sales

year	Domestic Sales	Number of firms	CR <sub>4</sub>	CR <sub>8</sub>
1971	24.347	35	61.1	78
1972	29.153	36	55.4	78.8
1973	31.804	32	53.3	80.9
1974	37.697	32	50	82

2.4.4. The product market of vieux

Vieux, also called Dutch cognac, is one of the most popular spirits in the Netherlands. Vieux sales amounted to 24.3 percent of sales of all spirits in 1971. This share declined till 22.9 percent in 1974. In common with the other spirits' product markets nearly all firms are engaged in the production of vieux. This product market is the least concentrated one. Bols and Heineken belong to the leading ten firms, but they do not rank first or second. Wenneker is the largest seller of vieux, having a market share of something less than 20 percent.

Cooymans increased its share of the vieux product-market by acquiring Legner in 1974 and became the number two. Concentration, as indicated by the  $CR_4$  and  $CR_8$  ratio's is rather low, but persistent over time. No great shifts in rank order positions occurred in recent years. Market fluidity as measured by the Spearman coefficient for the leading 10 firms shows that only 15 percent of all possible shifts took place in the years 1971-1973. In 1974 the product market's structure was rearranged both as a result of a large merger and of the rapid increase of some small firms.

These changes were accompanied by a rise in sales largely of "white" vieux, sold by small companies.

In 1976 the importance of "white" spirits declined, because of the abandonment of vertically tied prices by some retailers.

Table 27 The evolution of concentration ratio's of the product market of vieux

Variable: domestic sales

year	Domestic Sales (x 1000 fl.)	Number of firms	$CR_4$	$CR_8$
1971	118.179	37	48.6	70.7
1972	129.998	36	46.9	69.6
1973	123.243	33	49.1	71.4
1974	149.152	35	51.0	70.9

#### 2.4.5. The product market of advocaat

Advocaat is an original Dutch liquor made of eggs and brandy and is mainly drunk by women.

Domestic sales of advocaat are not of a great magnitude. They cover about 1 percent of domestically produced spirits and liquors. In 1971 Dutchmen spent 7 million florins on advocaat purchases.

Advocaat is an important export-product, however. The value of exports rose from 15.8 million florins in 1972 to 25.8 million florins in 1975 accounting for 40 percent of total Dutch spirits exports.

No detailed data about concentration for this product-market are available. However, only a few firms (about 5) are engaged in advocaat production. Two of them, Bols and Erven Warnink, a subsidiary of Skol, have about 70 percent of domestic sales, shared about equally. Their share of exports is even higher, because the other small advocaat-producers do not export at all, or only on a very small scale.

## 2.5. Mergers

### Comments on the list of mergers/take-overs

As can be seen from the accompanying list, the 3 largest companies (Bols, Heineken and Henkes) were chiefly involved in take-over operations.

Heineken achieved its actual second place in Dutch distilling only in 1971. In that year Heineken took over Bokma, a large distillery, with an old-established famous brand in Geneva and enlarged its interest in Coebergh, renowned producer of brandies to a 100 percent ownership.

Bols has been an active acquirer until 1968. It enlarged its market share considerably by taking over Hartevelt, an important Geneva-manufacturer in 1968.

Another important acquirer was Herman Jansen. Jansen gained an important place on the product market of "beerenburg" bitters, by take-overs of Plantinga and Sonnema, two famous brands in this field. Jansen also merged with Vlek in 1972, in this way creating Uto, a leading producer of spirits. This firm possesses an extensive merchandise organisation to-day.

Acquisitions by foreign companies were performed by Skol Breweries, a subsidiary-company of Allied Breweries.

The main objective of these acquisitions seems to have been the control of brands and market shares of the acquired companies in order to fortify the market position of the leaders.

Also, many vertical integrations by means of mergers, both in a backward and in a forward direction took place.

Bols integrated backwards by acquiring de Koning (alcohol-manufacturers) and ensured its raw-materials provision in this way.

In reverse, by taking over Schaeffers-Wündemann/Gall en Gall, Bols moved forward into retailing operations.

Henkes has got an interest in merchandising by taking over Staffhorst and Finjé. It also owns a retailing-organisation: Aquilar.

Heineken moved forward into the spirits trade by laying hands on Reuchlin, an important wine-merchandiser.

## Diversification

The most important firms, which have diversified into distilling are Heineken and Skol. Diversification this far has only taken place by means of mergers, but recently, after an abortive attempt to take over Bols, Heineken has decided to build a new distilling plant at Zoetermeer, near The Hague.

## Internationalization

Another motive for mergers was the attainment of licenses to import famous brands of foreign liquors (of which the most important are whisky and cognac). By means of acquiring large import-houses of wines and spirits, alongside their own import-activities, the leading companies have enlarged their market share in this area.

Examples of important import-houses taken over, are Oud (Bols), Reuchlin (Heineken) and CP (Skol).

Most small distilleries are importers of foreign liquors too, but the brands they import are less well known.



List of take-overs in the Dutch spirits-industry

	Acquiring company	Company acquired	character of the acquired firm
1954	Bols	Wynand Fockink	liquor factory
1954	Bols	H. Bootz	distillery
1954	Herman Jansen NV	W. Jager Gerlings	merchandiser
1961	Herman Jansen NV	Plantinga	distillery
1966	Cooymans	De Korenaer	distillery
1967	Herman Jansen NV	Sonnema	distillery
1968	Bols	"De Fransche Kroon", formerly Hartevelt	distillery
1968	Bols	Wed. G. Oud Pzn en Co	merchandiser
1969	Bols	Schaeffers Würdemann/ Gall and Gall	retailers
1969	Bols	Amager NV	merchandiser
1970	Bols	Blankenheyn en Nolet	distillery
1970	Henkes	Mispelblom	distillery
1970	Herman Jansen NV	Jansen en Wouterlood	merchandiser
1971	Bols	Simon Pijper	merchandiser
1971	Heineken	Bokma	distillery
1971	Heineken	Coebergh BV	distillery
1971	Henkes	Hasekamp en Co	distillery
1971	Wenneker	Duys en Co NV	distillery
1971	Wenneker	Dirk Struys	distillery
1972	Heineken	Van Olfen BV	merchandiser
1972	Henkes	Kleipoolcencern (Levert, Daalmeyer en Daniël Visser)	distilleries
1972	Utomy BV	Merger between Herman Jansen NV en Vlek en Co	distillery
1973	Heineken	M. Reuchlin en Zn	merchandiser
1974	Henkes	Staffhorst	merchandiser
1974	Henkes	Finjé	merchandiser
1974	Skol	Wed. A. v.d. Eelaart	distillery
1974	Cooymans	Legner	distillery
1975	Cooymans	Ganzeboom	distillery
1976	Skol	J.J. Melchers WZ	distillery

## 2.6. Recent events

A shocking event in the Dutch spirits distilling industry occurred when, on the seventh of April 1976, Heineken made a bid for the Bols shares.

At the end of the sixties Heineken expanded her interest in the spiritsector, guided by the objective to build up a good position in this market in order to be able to offer a complete assortment of beverages.

In the past years this strategy could be realized by taking over famous concerns like Bokma and Coebergh, but since strong concentration operations advanced, there were fewer independent distilleries with strong brands to acquire, which could contribute to a substantial strengthening and growth of this sector.

Heineken gave the following reasons for this takeover bid:

- The company wants to build up a strong position on the international spiritsmarket. The interests of Bols in the international market are considerably higher than those of Heineken; more than 50 per cent of Bols-sales are realized abroad.
- Because of their successful penetration of the Dutch spiritsmarket, Heineken had to decide on expansion of their production facilities. Bols has ample spare production-capacity in her up-to-date works at Nieuw-Venep. By taking over Bols the combined production-capacity could be attuned to joint future needs.
- Heineken heavily depends on outsiders concerning the supply of raw materials.  
Because of their fast growth they want to have part of this supply, especially grain alcohol, in their own hands. Bols owns De Koning at Schiedam, manufacturer of alcohol. By taking over Bols, Heineken would be able to safeguard the continuity in alcohol supplies.

On the 17th of April, Heineken officially made a bid; they offered D.fl. 110.-- for each Bols share (nominal value D.fl. 10.--) or D.fl. 35.-- in cash plus D.fl. 75.-- Heineken bonds; this meant a bid of D.fl. 256 mln.

However, Bols wanted to stay independent. The firm enlarged its capital stock by issuing shares worth 4.5 million florins and placed these shares at the Bols foundation.

In this way the takeover bid of Heineken was warded off and Heineken gave up the attempt.

After this episode Heineken decided to enlarge its market share via

internal expansion. In October 1976, plans were announced to build a distillery and an alcohol factory at Zoetermeer.

The intended project requires an investment of 50 million florins and the new plant will have 300 employees.

The new facilities are expected to start production in 1979. Two smaller distilleries of Heineken at Rotterdam and Schiedam will then be closed down.

## 2.7. Cost-structure and economies of scale

In table 28 costs are computed as a percentage of production-value inclusive of profits made by producers. Cost-structures presented refer to firms of more than 50 employees, covering about 80 per cent of total output.

Table 28. Cost-structure of large distilleries in percentages of production-value (excl. excise-duties).

	1971	1972	1973
Alcohol	9.5	11.1	11.6
Imported spirits	3.4	4.2	4.7
Fruits and eggs	5.6	5.7	6.2
Packaging	12.3	13.4	15.2
Other Materials <sup>1</sup>	<u>4.3</u>	<u>6.1</u>	<u>8.0</u>
<u>Materials Consumption</u>	35.1	40.5	45.7
Salaries & wages and social charges	18.6	20.0	22.5
Depreciation, other costs and profits	<u>46.3</u>	<u>39.5</u>	<u>31.8</u>
<u>Value added</u>	<u>64.9</u>	<u>59.5</u>	<u>54.3</u>
<u>Production value</u>	100.0	100.0	100.0

1 = incl. energy and repayments of import- and excise-duties.

Source: CBS Production statistics

Distilleries and liquor factories 1972 and 1973

It will be seen that the share of value-added declined. This was due to conflicting tendencies = whereas materials input prices and labour costs rose, profits and depreciation came under pressure as a result of the competitive developments outlined above.

### Economies of scale

The production process of spirits distilling is a rather simple one. Therefore no clear-cut differences in unit production costs exist between large and small distilleries.

Also, no production process innovations, leading up to cost advantages were undertaken in recent years. Therefore, firm-size is not determined by technical considerations. Both small and large firms can exist alongside each other.

Whether a firm succeeds in attaining large size depends largely on its ability to establish and maintain a strong brand-image. Advertising is the most important way to achieve this. Large sources are expended for advertising purposes, which only the large distilleries can afford.

### 2.8. Advertising

Total advertising expenditures for alcoholic leverages have more than doubled in recent years. In particular, advertising on television has gained a larger share.

Table 29 gives detailed information about the evolution of total advertising expenditure and its division.

Table 29. Advertising Expenditure on Alcoholic Beverages in the Netherlands, 1970-1973

(Fl million)

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Newspapers	3.9	4.1	4.5	6.4
Magazines	0.5	1.0	1.5	2.5
Women's magazines	0.7	1.2	1.5	2.2
Radio/TV magazines	1.3	1.8	2.1	2.1
Other periodicals	2.5	3.1	3.4	3.7
Total press	8.9	11.2	13.0	16.9
Television	3.0	4.4	7.2	8.4
Radio	0.3	0.2	0.5	0.5
Total	12.2	15.8	20.7	25.8

Source: Bureau voor Budgetten Controle (BBC)

If total advertising expenditure more than doubled, expenditure for some spirits with a quickly expanding sales-volume grew considerably faster. Thus, expenditure on "beerenburg", was seven times as large in 1973 than in 1969.

Advertising outlays for (foreign) liquors rose five-fold since 1969. Apart from a negligible amount of collective advertisement, all advertising is brand advertising. The multi-product firms have different advertising-campaigns for all of their spirits categories. Moreover, most large producers dispose of more than one brand within a particular spirits-category. Bols, for example, advertises its Bols geneva but also promotes the geneva-brands Hartevelt and Blankenheym. Heineken extensively advertises its two brands of geneva: Bokma and Hoppe.

Firms generally carry several brands as a result of acquisitions.

In earlier days all brands represented independent firms.

In contrast, the Dutch beer-industry has suppressed some brands after firms were acquired. Skol did not maintain one of the brands it acquired in 1969. All acquired brands were replaced by one new brand: Skol.

Therefore, in comparison with the beer-industry, brand-concentration within the spirits-industry is rather low. Both as a result of the need for distinction by means of several brands and the existence of a large number of firms, advertising within the spirits-industry, as a whole is much more dispersed. However, in sub-market advertising concentration is very high.

Some examples may make this clear.

The 9 largest manufacturers of young geneva had a share of 90 percent of total advertising expenditures.

With respect to vieux the five largest manufacturers paid for 90 percent of total advertising expenditure laid out for this spirit during the period 1969-1974.

By far the largest part of advertising-expenditures on beerenburg is almost completely due to two brands: Sonnema and Plantinga both owned by the firm of Uto.

### Part III Distribution

#### 3.1. General remarks

Spirits-consumption consists of two categories: home-consumption and hotel- and catering-consumption.

The pattern of spirits-consumption has undergone remarkable changes in recent years. Compared with 1961, when 35 per cent (The Hague) and 53 per cent (Amsterdam) of all alcoholic beverages were consumed in hotels, restaurants and other catering outlets, the on-premise percentages have been reduced to 13 and 21 per cent respectively (see table 30).

For the total Dutch spirits consumption it may be assumed that more than 75 per cent takes place at home.

Table 30. Sales of spirits to consumers, broken down by distribution channel; 1969 - 1974 (%).

	Amsterdam		The Hague	
	Retailtrade	Hotel- and catering sector	Retailtrade	Hotel- and catering sector
1961	47	53	65	35
1965	53	47	74	26
1969	75	25	82	18
1971	73	27	83	17
1973	78	22	86	14
1974	79	21	87	13

Source: "Produktschap voor Gedistilleerde Dranken", Annual Report, 1975, Schiedam, May 1976.

### 3.2. Wholesale trade

The reason why distilleries make use of the wholesaler's services is to get a good spread of their various spirits and brands over retail outlets.

The wholesale trade to a large extent provides the hotel- and catering-sector and is the main supplier of the majority of independent retailers in so far they are not linked with purchasing organizations.

When the system of vertical price maintenance was abandoned for branded spirits, the position of the wholesale-trade deteriorated. Since the beginning of 1976 a system of fixed minimum consumer prices for a number of spirits varieties is in force. As part of this system the average wholesaler's margin is set at Fl. 0.35 per litre, that is about 3 per cent of the consumer price (excluding V.A.T.)

In 1975 the "Produktschap voor Gedistilleerde dranken" had registered 1314 wholesalers in its books.

Table 31. Number of wholesalers registered at the Produktschap voor Gedistilleerde Dranken (1968 - 1975)

Year	Number of wholesalers
1968	1568
1969	1530
1970	1470
1971	1400
1972	1367
1973	1356
1974	1331
1975	1314

Source: Produktschap voor Gedistilleerde Dranken, Annual Reports, Schiedam.

Expectations are that the number of wholesalers will decline further. The main reasons are:

1. the appearance of purchasing organizations of retailers.  
These organizations are directly supplied by the manufacturer;
2. the appearance of discounthouses, cash and carry organizations as well as foodchains and retail multiples, which also are directly supplied by the manufacturer;
3. vertical integration: some distilleries have their own wholesale-groupings.
4. an increase of costs in the wholesale trade itself and a narrowing of margins.

There are three major wholesale-groupings specialized in spirits:

- the Heineken-group with 40 associated wholesalers;
- Citadel Nederland B.V. (Allied Breweries) with 40 wholesalers;
- Drako with 28 wholesalers

### 3.3 Purchasing organizations

In an attempt to meet growing competition from discount houses, cash-and carry firms, retail multiples and food chains, a number of retailers have regrouped themselves in purchasing organizations.

Their main object is to take advantage of large scale purchases on joint account of spirits and wines.

In 1972 the gross profit margin of members of the organizations was about 2 percent higher than that of the retailers, who are supplied by wholesale traders.

Three important purchasing organizations have to be mentioned here:

- "Nederlandse Coöperatieve Kelders" G.A. at Hazerswoude-Rijndijk, founded in 1956 with about 275 members;
- Coöperatief Wijnkopersgilde" G.A. at Heerde, founded in 1869 with about 250 members;
- "Delcave" B.V. at Delft, founded in 1961 with about 560 members.  
Delcave has its own distillery and bottleroom ("Bestnat" B.V.).

### 3.4 Retailtrade (licensed retailers)

Under the "Drankwet" (the law on alcoholic products) which was in force until November 1967, the number of retail outlets for alcoholic beverages was limited by means of a maximum-system, governing the ratio between the number of outlets and the number of inhabitants of a city or town. Under this law the owner of an outlet needed a licence, to be granted by the local authorities.

Under the "Drank- en Horecawet" replacing the old law, this maximum-system was abandoned. As a result, the number of outlets increased substantially. New groups of retailers, attracted by a fast growing market with high margins, could enter the spiritsmarket (see table 32).



Table 32: The number of retail outlets for alcoholic beverages (1967-1976; first of January of each year

Year	Total number of outlets	Retailers with	
		one outlet	more than one outlet
1976	3.335	2.674	661
1968	3.401	2.720	681
1969	3.586	2.817	769
1970	3.720	2.796	924
1971	3.860	2.847	1.013
1972	3.869	2.832	1.037
1973	3.831	2.756	1.074
1974	3.808	2.710	1.097
1975	3.784	2.659	1.125
1976	3.749	2.620	1.129

Sources: Economisch Instituut voor het Midden- en Kleinbedrijf (E.I.M.)

Een onderzoek inzake de structuur van de detailhandel in alcoholhoudende dranken, The Hague, June 1976, p. 24, table 7;

E.I.M. Bedrijfsgegevens voor de detailhandel in alcoholhoudende en alcoholvrije dranken over 1972, The Hague, May 1975, p. 18, table 10.

In table 32 a strong increase in the number of outlets is observed until 1972 and a decline thereafter. The number of retailers with one outlet showed a steady decrease since 1969, in contrast to the number of retailers with more than one outlet.

In 1967 there were 147 retail multiples with 661 outlets, that is to say 20 percent of the total number of outlets; in 1976 this number increased to 212 retail multiples with 1.129 outlets, that is to say 30 percent of the total number.

The following table gives an impression of concentration in the retail-trade of alcoholic beverages (table 33).

Table 33

Average number of retailers in alcoholic beverages with more than one outlet  
(Middle of June 1975)

		Total
131 retailers with	2 outlets:	262 outlets
36 retailers with	3 outlets:	108 outlets
24 retailers with	4 outlets:	96 outlets
7 retailers with	5 outlets:	35 outlets
7 retailers with	6 outlets:	42 outlets
1 retailer with	9 outlets:	9 outlets
2 retailers with	10 outlets:	20 outlets
3 retailers with	11 outlets:	33 outlets
4 retailers with	12 outlets:	48 outlets
2 retailers with	13 outlets:	26 outlets
2 retailers with	14 outlets:	28 outlets
1 retailer with	16 outlets:	16 outlets
1 retailer with	19 outlets:	19 outlets
1 retailer with	20 outlets:	20 outlets
2 retailers with	22 outlets:	44 outlets
2 retailers with	24 outlets:	48 outlets
4 retailers with more than	25 outlets:	334 outlets
<hr/>		
230 retailers		1.188 outlets

Source: Produktschap voor Gedistilleerde Dranken, Annual Report 1975,  
 Schiedam, May 1976.

In comparison with previous years, there was an important increase.

January 1967: 147 retailers with altogether 664 outlets

January 1970: 193 retailers with altogether 907 outlets

January 1973: 221 retailers with altogether 1.057 outlets

The division according to the main types of retailers is given in table 34.

Table 34

Category of retailers	Number of outlets	Total sales (Dfl. mln.)
a. retail multiples (traditional sales basis)	730 (19.5 %)	290 (19.7 %)
b. retail multiples, retailers with one outlet (on discount basis)	400 (10.7 %)	385 (26.1 %)
c. other retailers with one outlet:		
-members of a purchase org.	1060 (28.2 %)	410 (27.8 %)
-non-members of a purchase org.	1516 (41.6 %)	390 (26.4 %)
	3750	1475

Source: Economisch Instituut voor het Midden- en Kleinbedrijf, Een onderzoek inzake de structuur van de detailhandel in alcoholhoudende dranken, The Hague, June 1976, p. 22, table 5.

Notable is the 26 percent share of the 400 retailers, who operate on a discount basis; on the other hand the weak position of retailers, not being members of a purchase organization, is striking too.

Insiders expect that at least 50 percent of the retailers in the latter category, but also those who sell in the traditional way, will have to abandon business in coming years.

Finally, the outlets of the food chains, strong retail multiples, cash- and-carry firms and discount houses will probably acquire the greatest share of domestic spirits sales in the future.

The most important retailchain-organization in the spirits-and winetrade are:

- Gall & Gall, owned by Lucas Bols Distilleries, operating about 150 outlets;
- Aquilar, owned by Henkes United Distilleries, operating about 120 outlets;
- Alberto, owned by Albert Heyn foodchain, operating 58 outlets.

### 3.5 Competitive developments in distribution

Until November 1967, when the "Drank- en Horecawet" came into force, the Dutch spirits market was characterized by an easy going rest.

Under the "Drankwet" (the law concerning alcoholic beverages), the number of retail outlets for spirituous beverages was limited to a certain maximum per number of inhabitants. Because it were local authorities, who could decide upon the number of outlets, this maximum varied from town to town.

As a result of this stiff retail structure, retailers had a strong position over against their suppliers.

To protect themselves, distillers and wholesalers made arrangements concerning minimum prices, (that is to say they instituted a system of individual vertical price maintenance, in which consumer prices were dictated by the manufacturer) and maximum discounts; the two essential features of the spirits cartel. As a consequence price-competition was an unknown phenomenon in the spirits branch.

A fundamental change in the Dutch spirits branch was the coming into force of the "Drank- en Horecawet", in which the maximum-system of retail licences was abandoned.

Now everybody was allowed to start an outlet for spirituous beverages, provided that one could meet the general requirements for running a shop. As we have seen, the number of retail outlets increased importantly. A new generation of retailers (food chains, cash-and-carry firms, discount-houses, retail multiples and independent retailers) entered the market, attracted by a fast growing per capita consumption and high profit margins. The greater part of this new generation of traders stood out by their more dynamic conduct of doing business: they had up-to-date outlets and practised more aggressive selling-methods.

Being inclined to give up part of their (high) margins, these retailers realized higher sales volumes and quickly assumed a rising marketshare. As a result they were able to force distilleries to sell at lower prices, while by-passing the wholesale trade. In so far as these distillers had joined the spiritscartel, this led to their expulsion.

Thus, the "white" spirits came into existence, especially young geneva and vieux, which soon gained a 20 percent marketshare.

Initially the manufacturers of the strong brands assembled in the spirits-cartel, succeeded in maintaining their vertically fixed prices.

Thus, the spiritsmarket was divided in two segments: the "white" spirits-segment and the "branded" spirits-segment. The strong position of the branded spirits, however, remained an obstacle to a larger marketshare for white spirits.

At the same time there was a striking increase in foreign spirits consumption. Until 1968, the imposition of excise tax on foreign bottled spirits departed from a fictive alcohol percentage of 65, as against the real alcohol content for foreign spirits per barrel, being much lower.

As a consequence of this regulation, the position of the importers, officially appointed as sole agents by the foreign manufacturers, was inshakable.

For only these official importers received spirits in barrel while others had to purchase and import on bottle which precluded any free competition from their side.

Prices of foreign spirits remained high, partly as a result of advertising-costs, but mainly as a result of high margins, both for importers, wholesalers and retailers.

Being in defiance of the E.E.C.-treaty, the regulation was a measure to protect the home-market: so, in 1968, the fictive percentage was replaced by the real alcohol content for tax purposes.

Now other importers were able to compete with the official importers.

For instance, shipmerchants in former times engaged in duty-free deliveries to ships and diplomatic offices, extended their sales activities to the "new generation"-retail outlets.

The prices of these so-called "parallel" imports could be reduced by eliminating intermediaries and advertising-expenditure.

This led to an increased consumption of foreign spirits.

In particular Scotch whisky and French cognac sales did benefit from the increase in price-competition. The reduced price-level had soon to be followed by the official importers.

Due to this intensified price-competition, the position of the traditional retailer worsened.

On the one hand, he was forced to grant price-cuts too and on the other hand, he could not prevent that a part of his customers disappeared.

As spirits, both Dutch and foreign, formed the greater part (60-70 percent) of his sales volume, it will be clear, that the traditional retailers did experience hard times.

As was observed earlier the increasing significance of retailers with more than one outlet (food chain, retail multiples, discounthouses and cash-and-carry firms), leads to further concentration effecting a fundamental change in the retailtrade structure.

This, in its turn, will have its repercussions on the wholesale trade and the spirits manufacturers.

Table 31 showed the decreasing number of wholesalers, partly as a result of concentration in the retailtrade.

The anticipated further concentration of retailtrade will lead to further concentration at the production-level. For the retailer only wants to sell products with a high turnover, that is to say the established "branded" spirits and the private labels. Small distilleries, with less known brands, may well see their distribution channels closed.

Moreover, when in future the Dutch food retailtrade is allowed to carry spirits in their assortment, this development may again be strengthened.

### 3.6. The Temporary price war in spirits

The strengthened position of the larger retailers resulted in a number of efforts to get rid of the system of individual vertically prescribed prices for Dutch spirits.

Initially the large distilleries offered stout resistance to this by means of instituting legal proceedings against such retailers.

But conflicting verdicts and a great number of illegal breaches relating to the system of vertical price fixing, compelled Lucas Bols Distilleries, followed by the other spirits manufacturers to abandon the system in September 1975.

There ensued a fierce price-war with average price-outs of about 20 per cent per litre.

In the same month the Dutch government announced an excise tax rise of 32 per cent, taking effect on the 1st of January 1976.

Both developments led to enormous spirits sales. This phenomenon was strengthened by the announcement of the Produktschap voor Gedistilleerde Dranken (the Spirits Board) to establish a minimum price for spirits on the 1st of January 1976.

This was the first time that the Spirits Board got the permission from the government to establish minimum prices since the establishment of the Board in 1954.

The aim was to prevent price-stunting with the main brands and so to guarantee a desirable margin for the traditional retailer and to slow down a too fast restructuring of spirits distribution.

This minimum consumerprice fixing was not restricted to geneva and vieux; in fact, competition in all other kinds of Dutch and foreign spirits was limited too: it was not allowed to sell these products below costprice.

Big losers of the price-war were the "white" spirits and the private labels.

Until September 1975 the retail trade-margin amounted to about D.fl. 2.60; during the price-war almost nothing remained of this margin. Under these circumstances a great number of the traditional retailers could not subsist. After the establishment of the minimum price, the margin varies between D.fl. 0.80 and D.fl. 1.89 per litre.

At present (October 1976) the well-known brands are offered at prices between D.fl. 13.00 and D.fl. 14.00 a litre.

These prices are a good deal above the prices prevailing during the last month of 1975, but they are only a fraction higher than those before the price-war.

In fact this means that the retailers did hardly pass on the excise-increase of D.fl. 2.05 including sales tax, resulting in a considerable reduction of their margins.

It is worth noting, that the minimum-price regulation for spirits is a unique measure in the Netherlands. It is the first time a minimum-price is prescribed for an article which does not belong to the first necessities of life.

Only for bread, milk and sugar minimum-prices authorized by the government do exist.

### 3.7. Spirits-selling in other branches

For a long time the Dutch food retail trade has expressed the desire to carry spirits in their assortment of drinks, besides beer, wine, sherry and soft-drinks.

Nowadays spirits are only sold in separate retail outlets and in the hotel- and cateringsector.

However, the present-day "Drank en Horecawet", prevents the leading retailers from effecting such sales.

The main reason given for this regulation, which dates back to the years of repressive legislation with respect to excessive drinking, is said to be of a social-hygienic character.

The food retail trade, holds the view that since the second world-war social and economic conditions have changed in such a manner, that the arguments on which this law is based, are no longer valid. On this question, the Dutch government consulted the "Sociaal Economische Raad" (Social and Economic Council).

This council, however, gave a divided opinion and so the existing "Drank en Horecawet" was not adapted. Obviously, the tug of war has not been ended thereby.

## Part 4

### The largest Dutch distilleries

The Dutch spiritsmarket is currently dominated by three companies: Lucas Bols Distilleries, Gedistilleerd Groep Nederland (Heineken) and Henkes Verenigde Distilleerderijen.

These companies own in their turn a large number of subsidiary-companies concerned with the production, import and distribution of spirits.

A number of companies of lesser importance, are controlled by foreign companies.

#### N.V. Koninklijke Distilleerderijen Erven Lucas Bols

(The Heirs of Lucas Bols), at Nieuw-Vennep, was founded in 1595 and is the oldest and best-known spirits manufacturer in the Netherlands.

In 1975 the company's turnover was D.fl. 515 mln. of which 51 per cent was derived from sales on foreign markets.

Lucas Bols owns subsidiary-companies in many European and over seas countries and further controls the following Dutch companies:

- Mouterij-Branderij De Koning B.V. at Schiedam, manufacturer of alcohol
- Likeurstokerij Wijnand Fockink B.V., Amsterdam
- H. Bootz Distilleerderij B.V., Amsterdam
- B.V. Distilleerderij "De Fransche Kroon" v/h Hartevelt & Zoon, Leiden
- Wed. G. Oud Pzn & Co B.V., Haarlem (wine importers)
- Schaeffers-Würdemann (wine-importers/Gall & Gall retail multiple, Amsterdam)
- Anager B.V., Amsterdam (wine-importers; exploitation of bodegas)
- B.V. Blankenheyn & Nolet's Distilleerderij, Rotterdam
- B.V. Distilleerderij-Wijnkoperij Simon Pijper, Amsterdam

In the years 1968-1970 Lucas Bols concentrated its output at Nieuw-Vennep, where a large modern factory was build.

The present daily capacity is about 250,000 jars and bottles.

An attractive (backward vertical) integration is Mouterij-Branderij De Koning. Via this subsidiary Lucas Bols can meet for their need for alcohol (malt wine, grain alcohol and malasses alcohol).

In 1975 Bols employed 2069 persons of which 1107 in the Netherlands.

Most important brands: Bols, Clareyn, Hartevelt, Wijnand Fockink and Parade:



Gedistilleerd Groep Nederland (Heineken),

At the end of the sixties, Heineken decided to build up, besides beer and soft drinks, a market in spirits and wines. In order to effect this purpose, Heineken acquired the following companies:

- Bokma B.V. Leeuwarden, largest manufacturer of young geneva
- Coebergh's Verenigde Distilleerderijen, Schiedam, which earlier merged with Hoppe and Hulstkamp
- Van Olffen B.V., Hattem (wines)
- Wijnhandel M. Reuchlin & Zn. B.V., Rotterdam

Total spirits and wine sales amounted to D.fl. 210 mln. in the year 1974-1975.

Most important brands: Bokma, Coebergh, Hoppe, Hulstkamp and Meder.

Henkes Verenigde Distilleerderijen B.V., Hendrik Ido Ambacht.

Before the second world war, Henkes was a typical export-oriented distillery; this character prevailed until the sixties.

Henkes is owned by the Zuid Nederlandse Spiritusfabriek (50%) and the Gist- en Spiritusfabriek (50%), both important manufacturers of alcohol.

The Z.N.S.F. already had some interests in the spirits distilling industry via N.V. Distilleerderij en Alcoholfabriek "De Papegaai".

The K.G.S.F. also had interests in the spirits industry via Distilleerderij Simon Rynbende & Zonen, Fa. Catz & Zn. of Pekela, Calcar/Sappemeer and Roebroeck Dubois (wine-importers).

Since 1870 Henkes acquired the following companies:

- Distilleerderij en Brandewijnstokerij v/h Mispelblom, Zutphen;
- Distilleerderij Hasekamp & Co, Schiedam;
- The Kleipoolconcern with the distilleries Levert, Daalmeijer and Daniël Visser and the retail multiple Heck & Co, Van Vliet and Levert.
- Carp (wine-importers)
- Wed. & Gebr. Staffhorst N.V.
- Wijnhandel Finjé

By taking over Carp, Henkes became at once the largest importer of so-called "democratic" wines, the cheap wines in the product range of the food-companies. Production has been concentrated in Hendrik Ido Ambacht and Zutphen.

Most important brands: Henkes, Rynbende, Mispelblom, Oorlam and Dunlop.

Skol Brouwerijen N.V. (Allied Breweries), Rotterdam.

Since 1969 Skol extended her business to the soft drinks, wines and spirits. Skol owns 5 production and wholesale-units for spirits and wines at Doesburg, Hilversum, Rotterdam, Middelharnis and Etten-Leur.

In 1975 the production was concentrated in a new distillery at Etten-Leur.

In 1974 the advocaat-factory Warnink was built at Middelharnis and this is one of the most up-to-date plants in the world. Ninety per cent of its advocaat-production is sold abroad, Great-Britain being the largest export-market.

Within the Skol-group the wholesale-activities are co-ordinated in Citadel Nederland B.V. at Breda with 40 units.

Skol owns the "Wijnmart"-retailchain with some 50 outlets.

Most important brands: De Keizer, Drie Sterren/Wed. A. v.d. Eelaart,  
St. André, Warninks advocaat, Likeur L'Empereur  
and Oudenbossche Pop.

Utomy B.V., Schiedam

Uto (Unitas Tenet Optimum) arose from a merger between Herman Jansen N.V. at Schiedam and the N.V. Delftse Distilleerderij v/h Vlek & Co at Delft. Before the merger took place. Herman Jansen had taken over the following companies:

- Wijnhandel W. Jager Gerlings, Haarlem
- K. Plantinga & Zoon, Bolsward
- Fa. E.J. Sonnema, Dokkum
- N.V. Jansen en Wouterlood, Schiedam

After the merger, production has been concentrated at Schiedam. Utomy operates 16 retail outlets and 3 units in the wholesale-trade and has 145 employees.

Most important brands: Sonnema Beerenburg, Vlekje, Plantiac Vieux Kabouter and Plantinga Vieux.

Coymans B.V., 's-Hertogenbosch (founded in 1828)

Coymans is the largest manufacturer of "white" geneva in the Netherlands. In 1966 Coymans acquired Distilleerderij De Korenaer at Schiedam followed by Distilleerderij Ganzeboom at Zwolle and Distilleerderij J.F. Legner at Schiedam.

Coymans operates 40 retail outlets (Covinette) and 5 units in the wholesale

trade and employs 250 persons.

Most important brand: Coymans

Wenneker, Roosendaal (founded in 1693)

In 1971 Wenneker acquired Distilleerderij Duys & Co N.V. and Dirk Struys & Zoon B.V., both at Schiedam.

Wenneker employs 85 persons.

Most important brands: Goblet and Du Jardin.

De Kuyper B.V., Schiedam (founded in 1695)

In 1932 De Kuyper founded a distillery in Canada followed by a distillery in the United States in 1934 and a distillery in New Zealand in 1962.

De Kuyper employs 100 persons in the Netherlands.

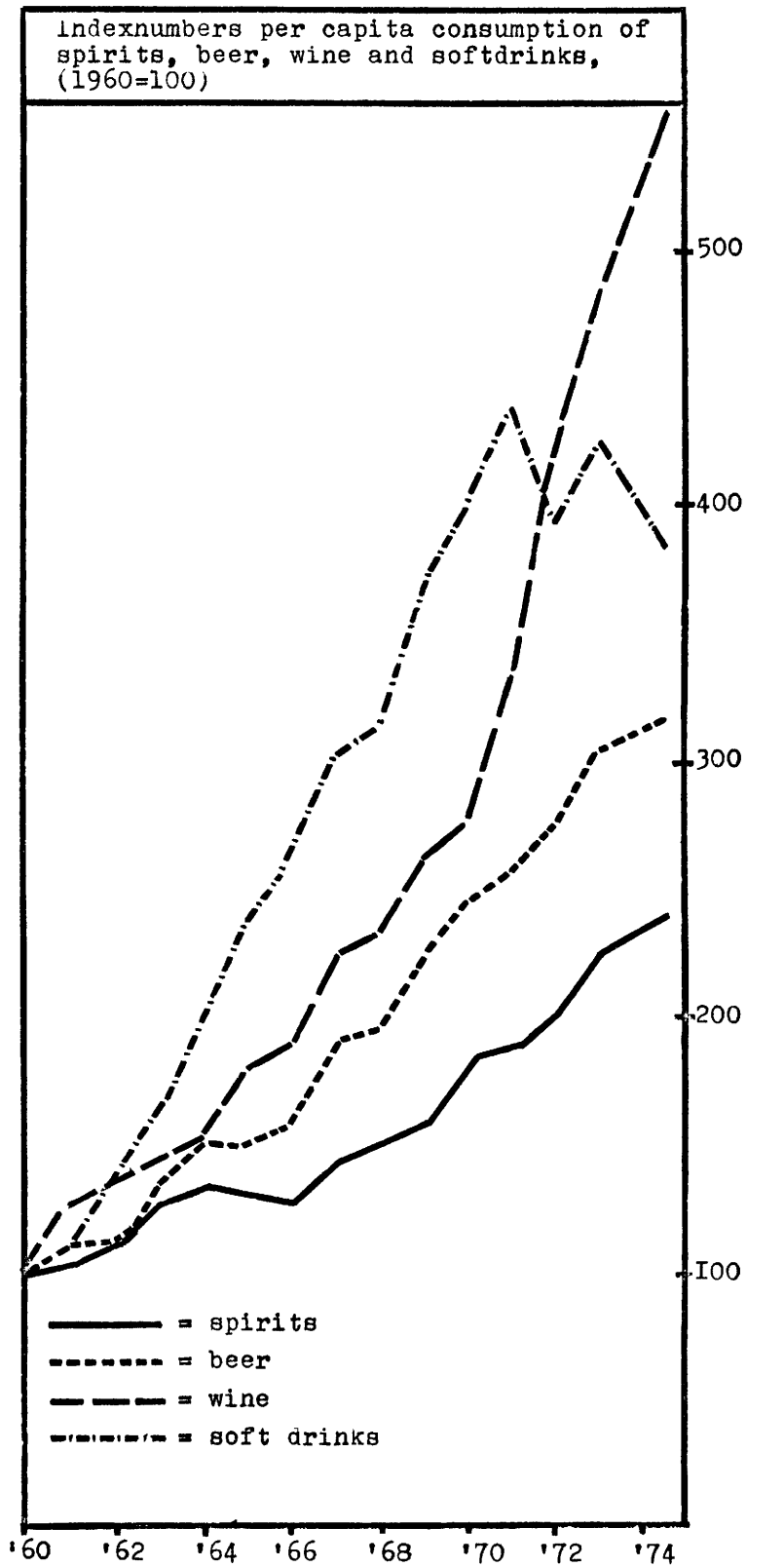
Most important brand: De Kuyper



== APPENDICES ==

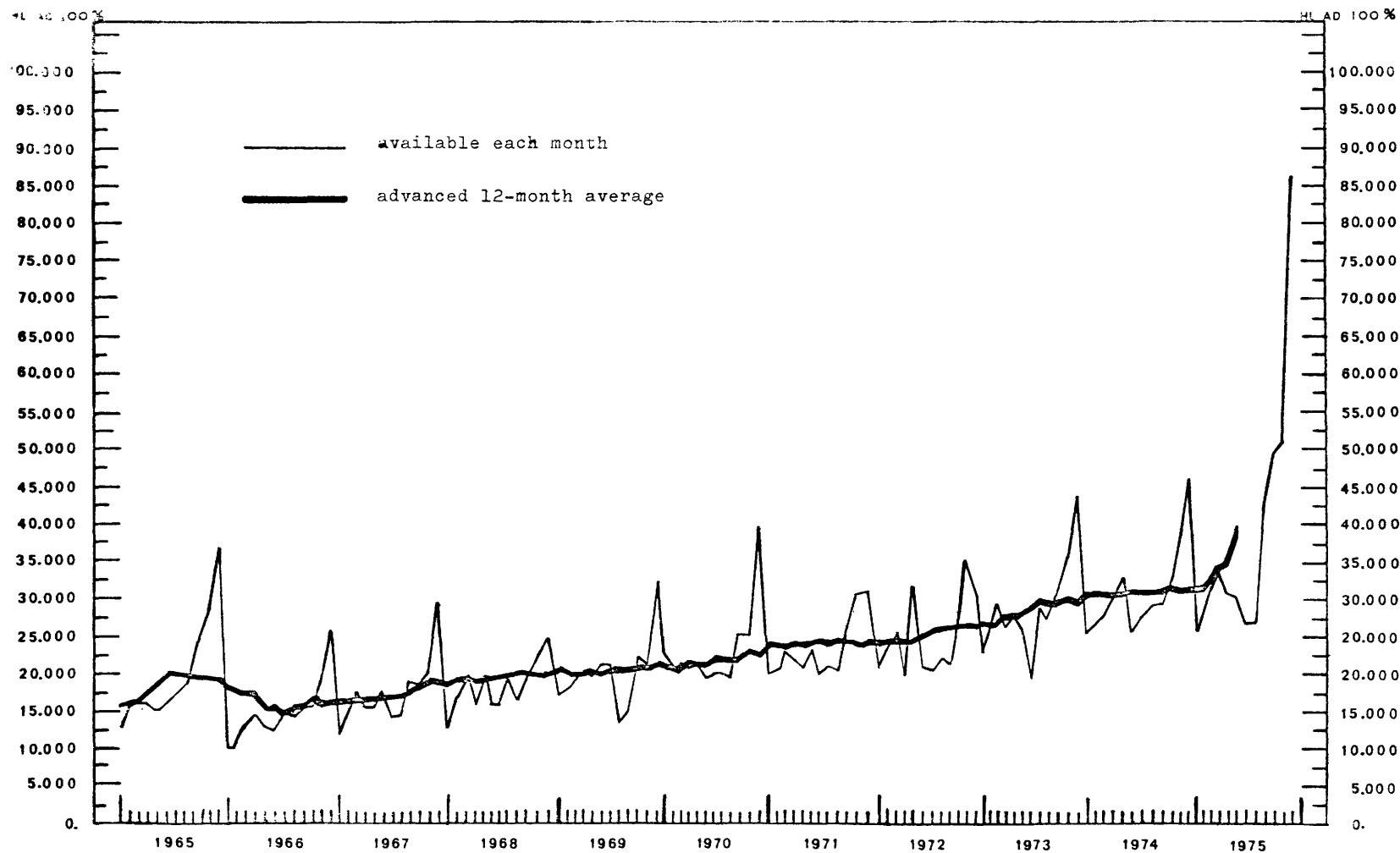


Figure 1



Source: Produktschap voor Gedistilleerde Dranken, Schiedam.

Figure 2  
Monthly apparent consumption of spirits in the Netherlands (according C.B.S.)



Source: Produktschap voor Gedistilleerde Dranken, Annual Report 1975, Schiedam, May 1976

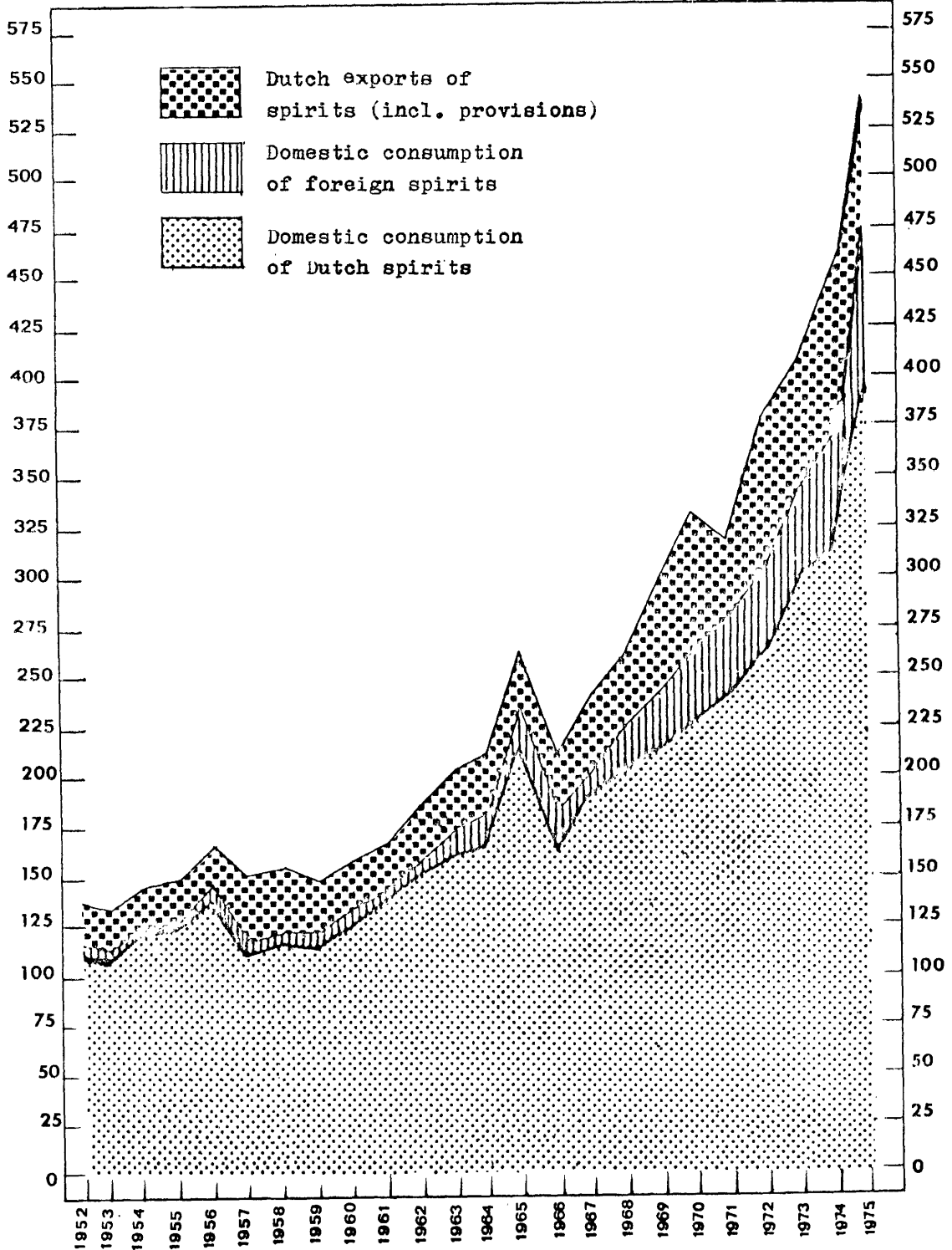


Figure 3

Sales (quantities) of the Dutch spirits distilling industry and -trade (according C.B.S.)

Source: Produktschap voor Gedistilleerde Dranken

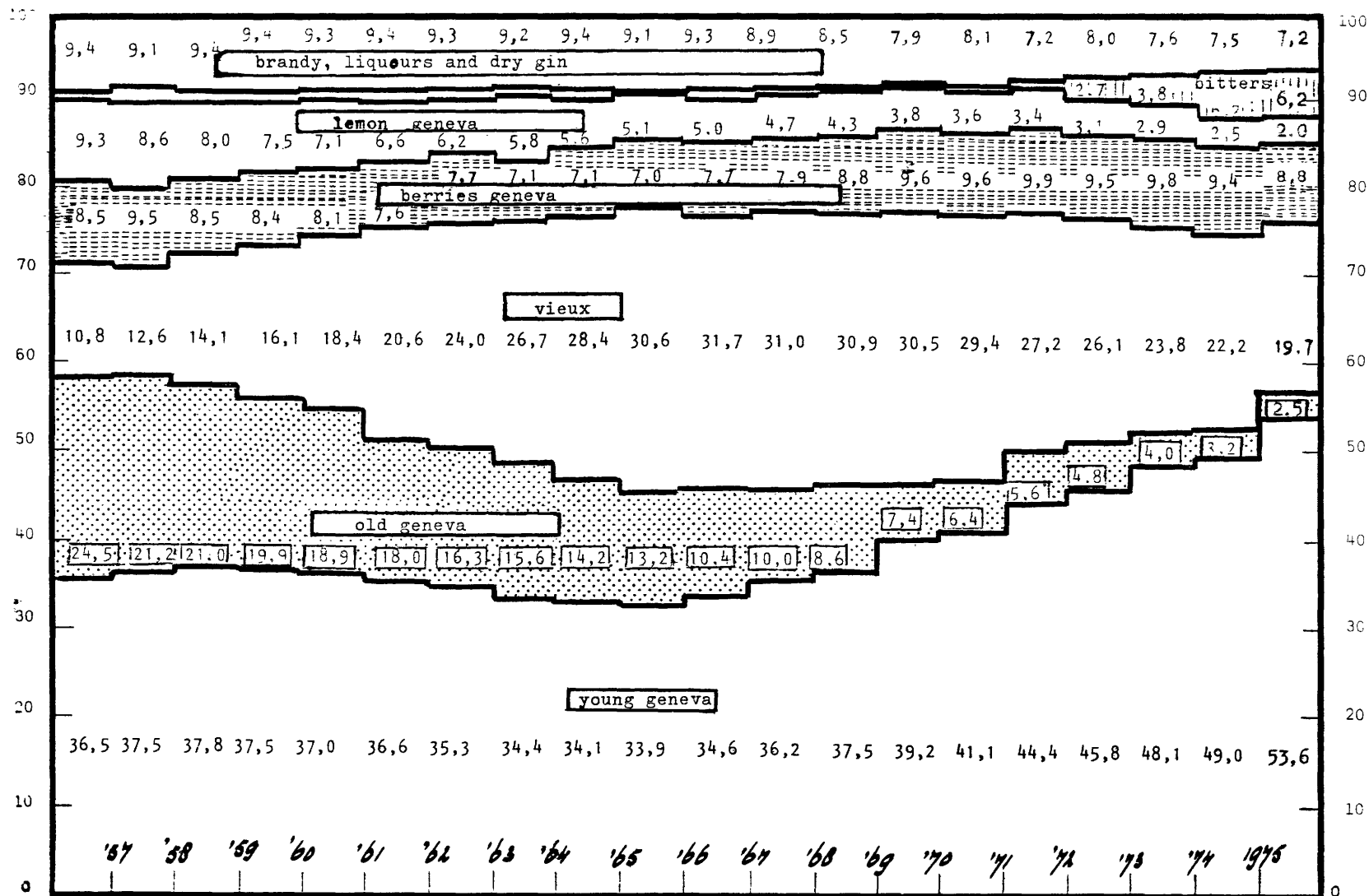
x 1000 HL AD 100 %



% Percentage development in spirits-sales on the domestic market (1956 - 1975)

Source: Produktschap voor Gedistilleerde Dranken, Schiedam

%



Report on Concentration in the Dutch Soft Drinks Industry (1970-1974)

By

Maria Brouwer (ec.drs)

under responsibility of

Prof.Dr. H.W. de Jong

Nijenrode, "Instituut voor Bedrijfskunde"

Breukelen

December, 1976



## Part I

### 1.1 Introduction and general survey

In this report the situation of the Dutch soft drinks industry with respect to concentration and competition will be reviewed.

Soft drinks sales have gone through a rapid, but interrupted expansion. During the 1970-1974 period, sales rose by 40 per cent to a total amount of nearly 500 million florins in 1974.

Exports have contributed almost 50 per cent to this expansion. The value of exports rose about 7.5 fold to an amount of 65 million florins in 1974. Two-third of these go to W-Germany.

Domestic sales rose only 23 per cent, an increase smaller than that of beer and spirits.

Of the traditional soft drinks, sales of Colas rose fastest, accounting for 23 per cent of total soft drinks sales in 1974. Sales of "new", non-alcoholic drinks, like pure fruit juices and mineral waters increased very fast. Pure fruit juices are only partly produced within the soft drinks industry. Sales of these juices rose by 30 per cent in 1975, as compared to the previous year. Mineral waters are imported mainly from Belgium.

Looking at concentration in the soft drinks industry, we have to distinguish between firm-concentration and brand-concentration.

The difference is caused by the independent bottleries. Firm-concentration is lower than brand-concentration; the  $CR_4$ -values hover around 50 percentage points for most variables.

Brand-concentration has been computed for the most important product-markets: fruit-based lemonades, colas, lemon-lime drinks and tonics. The concentration ratio's for the product-markets, computed in the sense earlier described, reach values lying between 70 per cent and 98 per cent, that is on a very high level.

The number of firms, participating in this industry has declined steadily, from 46 in 1970 to 28 in 1974.

Most firms merely disappeared. Some were taken over, for example two coca-cola bottleries were taken over by Skol/Holland.

The most important take-overs within the soft drinks industry had already occurred before 1970. In 1964 the American firm W.R. Grace en Co. took over Raak, the second soft drinks producer in the Netherlands.

The first Dutch soft drinks firm in 1974: Vrumona was acquired by Heineken in 1968. Another large firm: Hero is 70 per cent Swiss owned. Besides breweries (Heineken, Skol and Grolsch) dairies have diversified into the soft drinks industry (CMC; Coberco, Friesland).

Another way in which foreign firms acquired a stake in Dutch soft drinking was via the introduction of their (american) brands or by means of the establishment of subsidiaries or by licensing Dutch firms.

As a result of these international and diversifying activities, only two Dutch original soft drinks firms have been left in the industry.

Retailers, and especially supermarkets are the most important, distributional outlets for soft drinks. Although not connected with legal proceedings against retailers (as happened in the beer- and spirits sectors) retailers have proved to be a competition stimulating force. Prices as recommended by manufacturers were abandoned in the early seventies.

Both cheap brands (Raak, Loots) and official brands are nowadays sold at reduced prices (Coca-Cola, 7-Up).

## 1.2 General development of the dutch soft drinks industry

Contrary to the development of consumption of beer and spirits, consumption of soft drinks did not follow a straight increase during the years investigated.

Consumption per head was subject to large fluctuations and was lower in 1974 than in 1970. The decrease of consumption in 1972 is generally ascribed to the higher excise-tax introduced at the first of January of that year. The decrease, occurring in 1974 cannot be so simply explained: no obvious reason seems to exist.

The rapid increase of exports compensated to some extent for the disappointing development of the domestic market.

Table 1. General development of the Dutch soft drinks industry

	<u>1965</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Domestic Production (million liters)	372.8	693.9	769.8	707.3	852.4	818.1
Consumption per capita (liters)		55.5	60.2	53.3	59.7	53.5
Domestic Production (million florins at producers prices)		346.8	428.9	427.5	517.8	489
Imports (million liters)		22.5	23.3	24.0	27.3	26.6
Exports (million liters)		14.9	23.2	38.5	98.5	132.6
Domestic sales (million liters)		702.1	769.9	692.8	781.2	712.1

Source: CBS, production statistics

Imports were more stable and were far surpassed by exports at the end of the period. Imports consist almost wholly of mineral waters and fruit juices. Most imports come from Belgium, followed by W-Germany.

### 1.3 The composition of soft drinks production

Because no disaggregated data of imports with respect to product-type were available, they are neglected in this paragraph.

Soft drinks, packed in large siphon-bottles also are not included in the following classification.

These two categories together covered about 5 per cent of sales in 1974. Domestically produced soft drinks are statistically broken down into the following categories: fruit based lemonades, cola drinks, lemon-lime drinks, other synthetic based carbonated drinks (gazeuse), tonics and soda-waters. Fruit juices and syrups are not included.

Some indication about the development of the production of fruit juices can be found in the paragraph relating to product markets.

Cola drinks have gained a considerably larger share of total soft drinks production.

However, fruit based lemonades remain the most important soft drinks category with a share of more than 50 per cent of production.

Lemon-lime drinks, tonics and soda waters are all decreasing in popularity.

Table 2. Domestically produced soft drinks according to categories (%<sup>s</sup> of  
output in liters)

	1965	1970	1971	1972	1973	1974
Fruit based lemonades	34.4	48.4	54.6	54.9	55.1	52.0
Cola drinks	38.1	15.0	14.2	16.5	19.3	23.8
Lemon-lime drinks						
Gazeuse	24.0	10.8	7.4	5.7	4.7	3.5
Tonic	3.5	3.4	3.1	3.6	3.0	2.6
Soda waters						
	100	100	100	100	100	100

Source: CBS, Production statistics, 1973



## Part II.

### The structure of the Dutch soft drinks industry

#### 2.1 Total industry

The industry's structure is characterized by a rapid decline in the number of firms and a rather high level of concentration, both in the absolute and relative sense.

Concentration ratio's of the leading four firms rose during the investigated period to over 50 per cent for most variables. Concentration ratio's for gross investments and exports were much higher. In particular export concentration is extremely high: the leading four companies account for nearly 90 per cent of exports.

Comparing the concentration coefficients, it is clear that the soft drinks industry is the least concentrated sector of the beverages-industry. Inequality, as indicated by indices V and G has slightly diminished during the period. This may be a consequence of the relatively faster growth of smaller firms.

Absolute concentration, contrariwise, has increased, as the concentration ratio's and the Herfindahl- and Entropy- indices indicate.

The four largest firms are Heineken (Vrumona), Raak, Hero, and the soft drinks division of allied Breweries (Skol).

Within the soft-drinks industries' leading group of firms not much change has occurred. The four largest firms occupied these positions with respect to all variables already in 1970. Heineken is the largest firm and has maintained this position uncontested.

The Spearman-coefficient, computed for the five leading firms (variable sales), shows that 35 shifts in the rank-order positions on a total of 100 have taken place during the years 1970-1974.

The data, on the basis of which the concentration indices were computed were collected at the Central Bureau of Statistics (CBS) in the Hague. The investigated period covers the years 1970 till 1974. Coefficients, presented in the following tables were figured out along the following lines:

- Firms with less than 10 employees were excluded

- Concentration was measured with respect to firms. Within the soft drinks industry many bottleries operate. Most of them are legally independent, although they bottle beverages of other firms. In the concept of "firms", used here, bottleries are included. Concentration indices with respect to brands (economically independent firms) are given in the paragraph about product markets.
- The concept of sales refers to sales of domestic producers. Imported soft drinks are excluded, but this is only a slight error.
- Wages and Salaries are inclusive of social charges.
- Sales-figures are exclusive of excise-tax
- The concept cash flow used consists of: depreciation allowances, rents, interest, some minor cost-categories, which could not be statistically included within the three main cost groups used by the CBS, and profits.
- Sales-figures are at producer's prices

## Linda-coefficients

The Linda-coefficients, presented in tables 12 till 18 reveal, that a clear, but declining dominance of the first firm prevails.

The first maximum  $N_h^*$  or  $N_h^<$  is reached by the second firm for all variables.

However, the dominance has declined as can be seen from the evolution of  $LN_h^*$  ( $<$ ) values.

For all variables, except gross investments and exports, the second maximum is identical to the first maximum.

In spite of this market leadership of the largest firm, values of Linda-indices are the lowest of the Dutch beverages-industry as a whole.

The picture of the soft drinks industry given earlier is thus confirmed by the Linda-coefficients.

All L-values and especially  $L_s$ -values increased slightly over the period. Again, L-values reached for gross investments and exports are exceptionally high.

The number of firms, composing the oligopolistic arena, declines at a rate which is even more rapid than that of the total number of firms.

$LN_m^x$ -values are declining.

The reduction of inequality, as indicated earlier by the indices V and G is not confirmed by L-values in all respects, therefore,  $L_s$ -values, except these for exports increased slightly over the period.

Table 4 The evolution of some variables (1970-1974) 1970=100

	1970	1971	1972	1973	1974
Number of firms (including bottleries)	46	43	37	37	28
Sales (x 1000 D fl.)	346.762	428.933	427.510	517.765	488.955
Index	100	123	123	149	141
Sales (million liters)	694	770	707	852	818
Index	100	111	102	123	118
Domestic Sales (x 1000 D fl.)	339.882	416.446	408.778	470.699	421.175
Index	100	122	120	138	123
Number of employees	4.144	4.660	4.238	4.007	3.561
Index	100	112	102	96	86
Wages en Salaries (x 1000 D fl.)	67.236	84.734	93.422	103.877	104.939
Index	100	126	138	154	156
Average Annual Wages per employee (florins)	16.225	18.183	22.044	25.924	29.469
Index	100	112	136	160	181
Gross Investments (x 1000 florins)	50.620	45.241	34.297	32.554	36.656
Index	100	89	67	64	72
Exports (x 1000 D fl.)	8.794	13.024	20.814	45.671	65.215
Index	100	148	237	519	742

The Evolution of some Variables of the Dutch soft Drinks Industry

Index: 1970=100

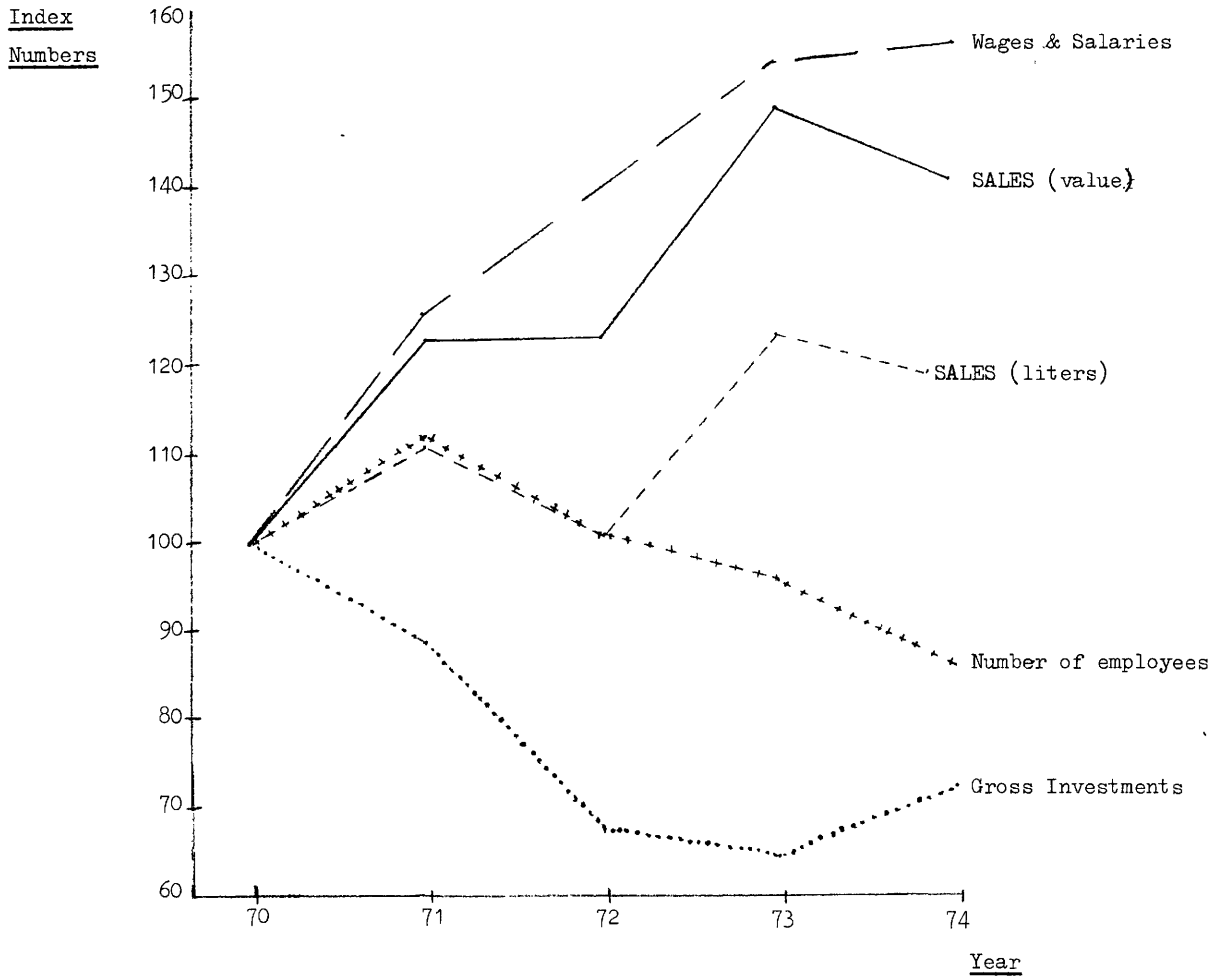


Figure 1  
Linda curve structure Dutch Soft drinks Industry  
Variable: Sales

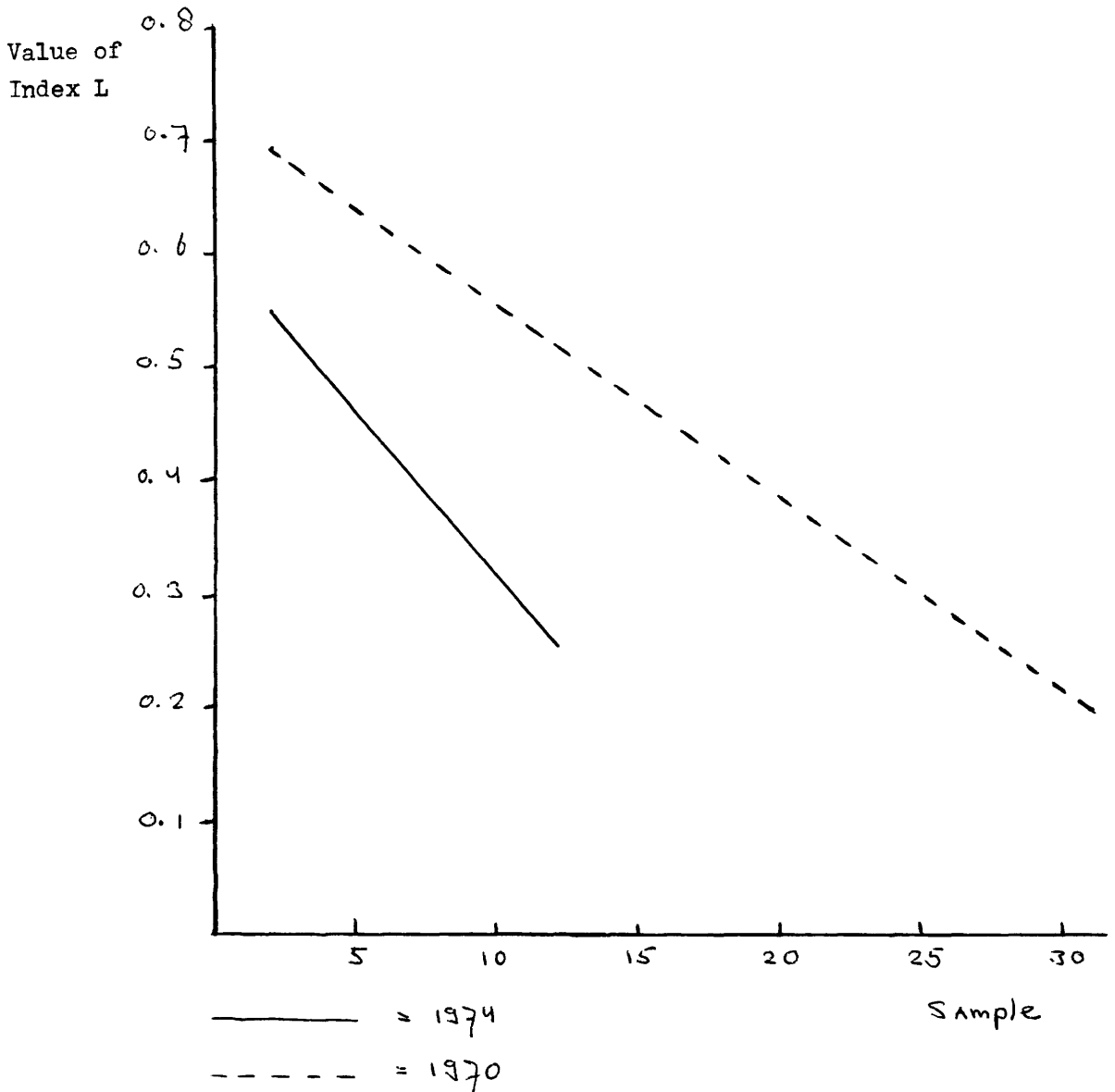


Figure 2

Linda curve structure Dutch Softdrinks Industry

Variable : Employees

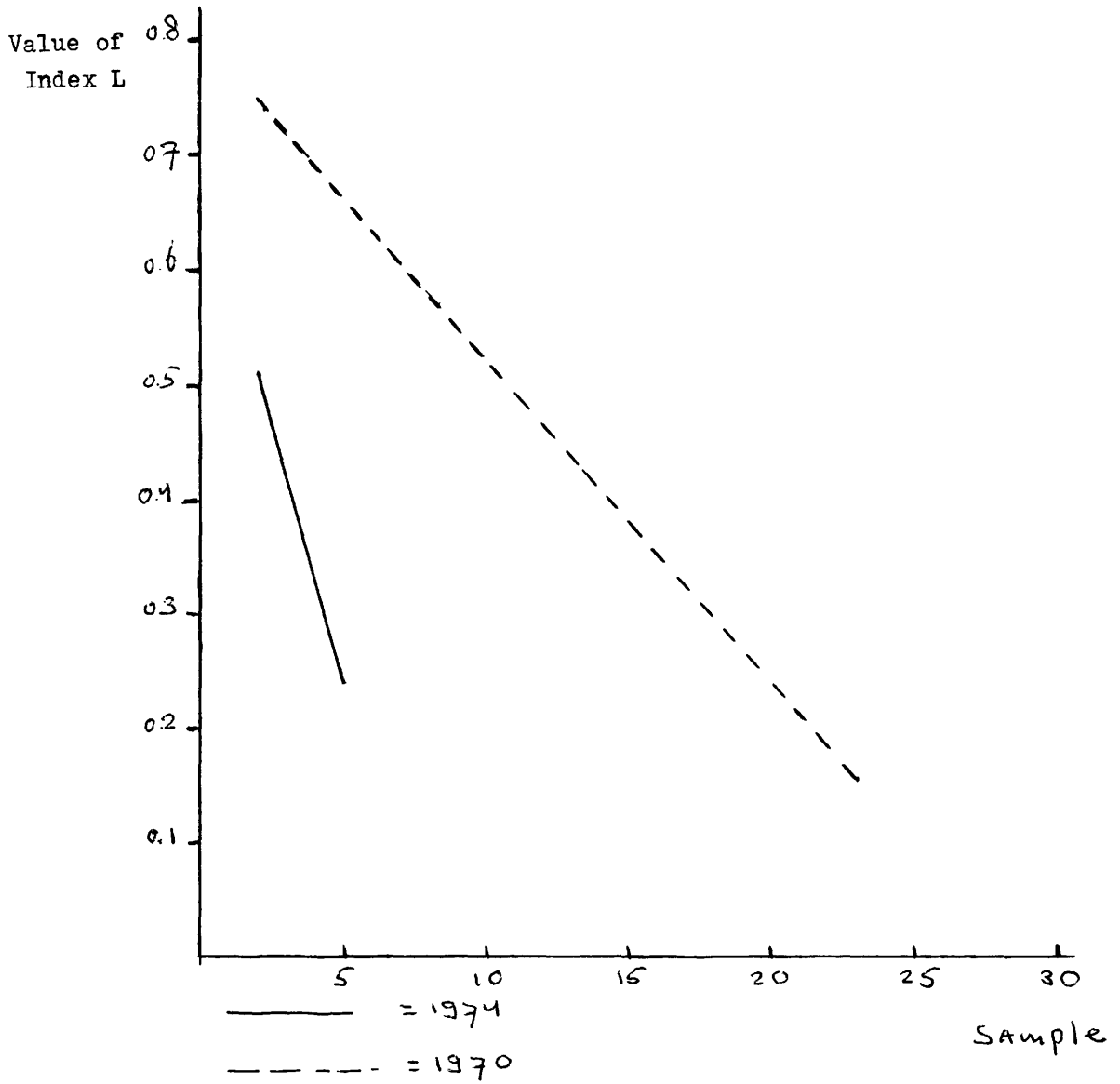
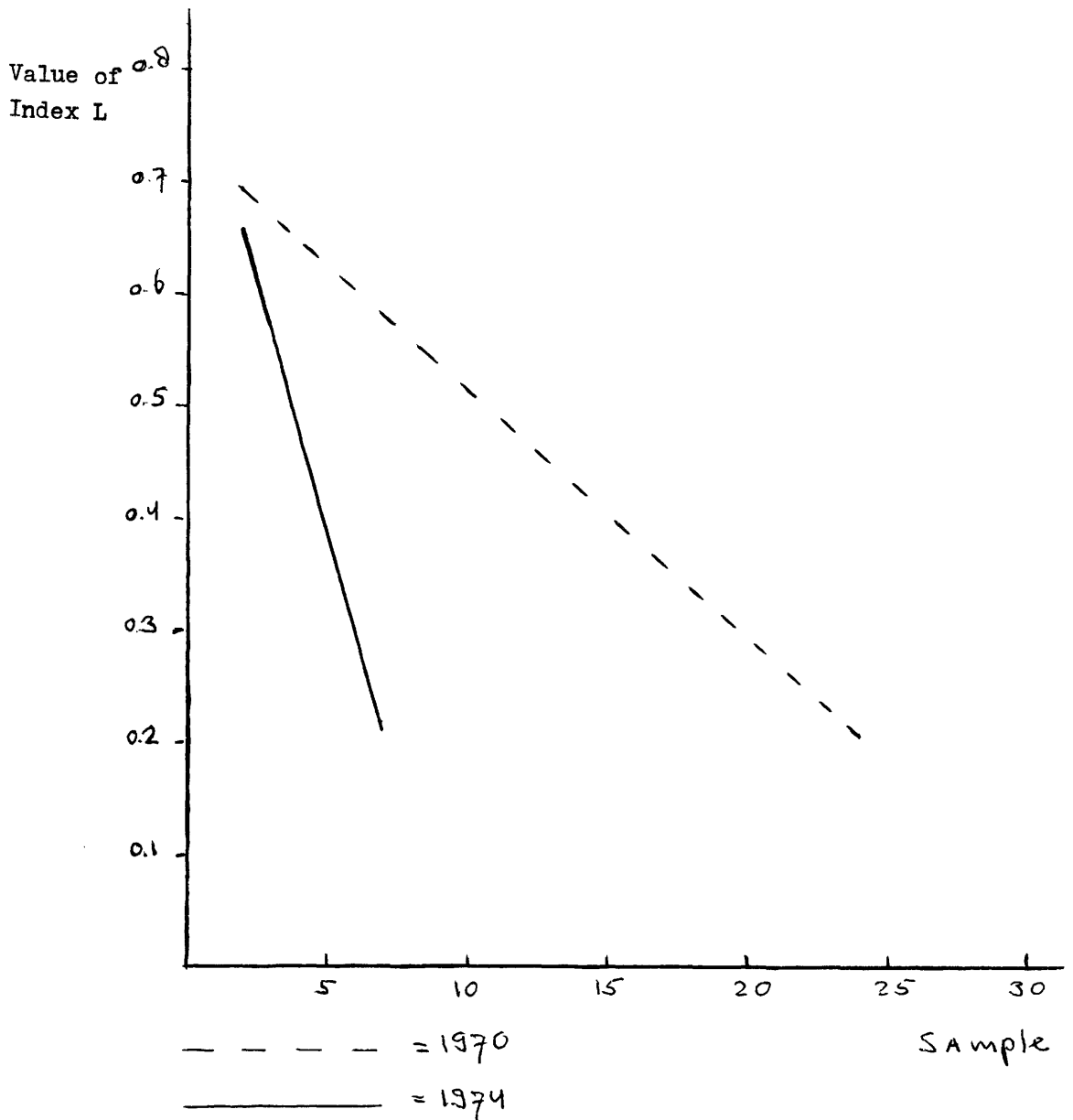


Figure 3

Linda curve structure Dutch Soft drinks Industry

Variable : Cash Flow





Value of  
Index L

Figure 4  
Linda curve structure Dutch Soft drinks Industry  
Variable : Gross Investments

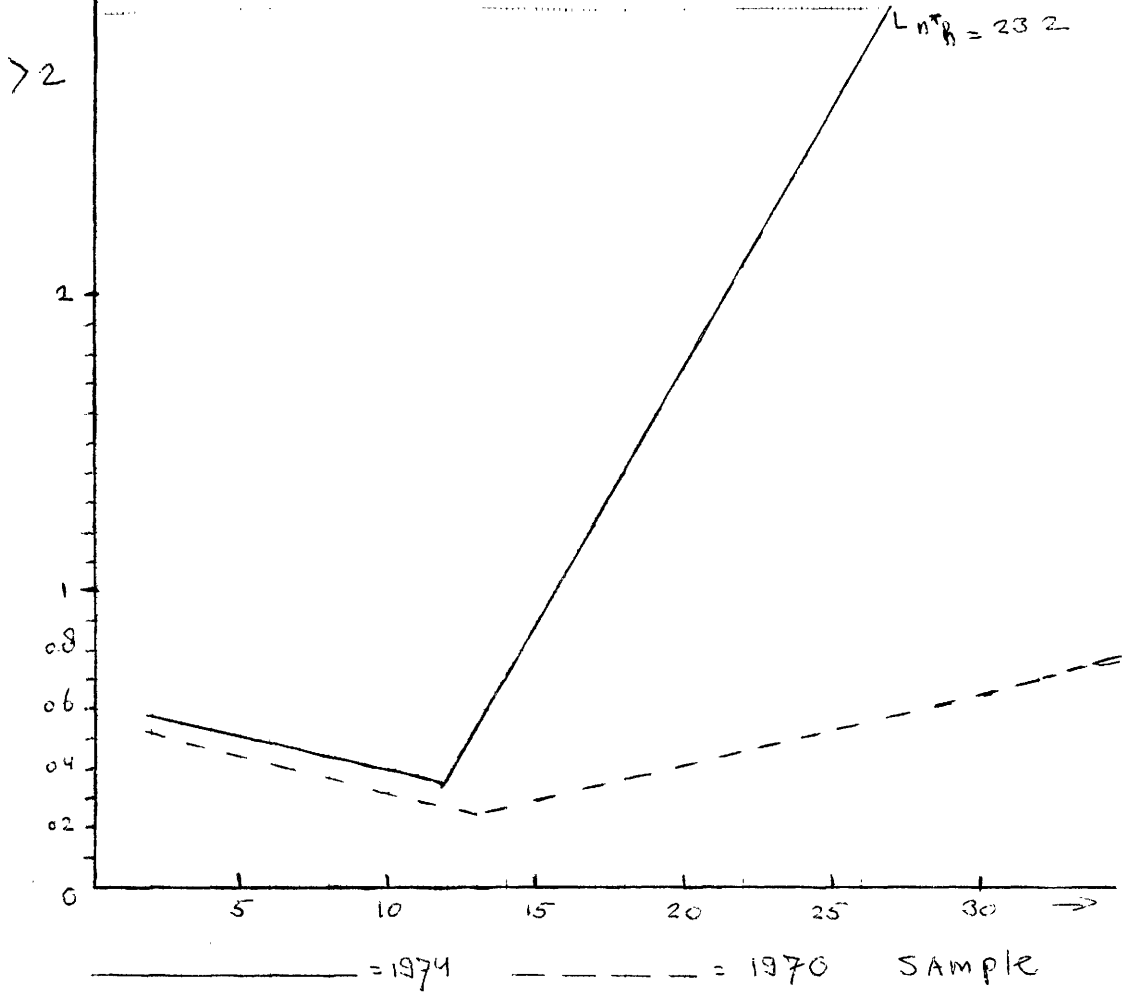


Figure 5  
Linda curve structure Dutch Soft drinks Industry  
 Variable : Exports

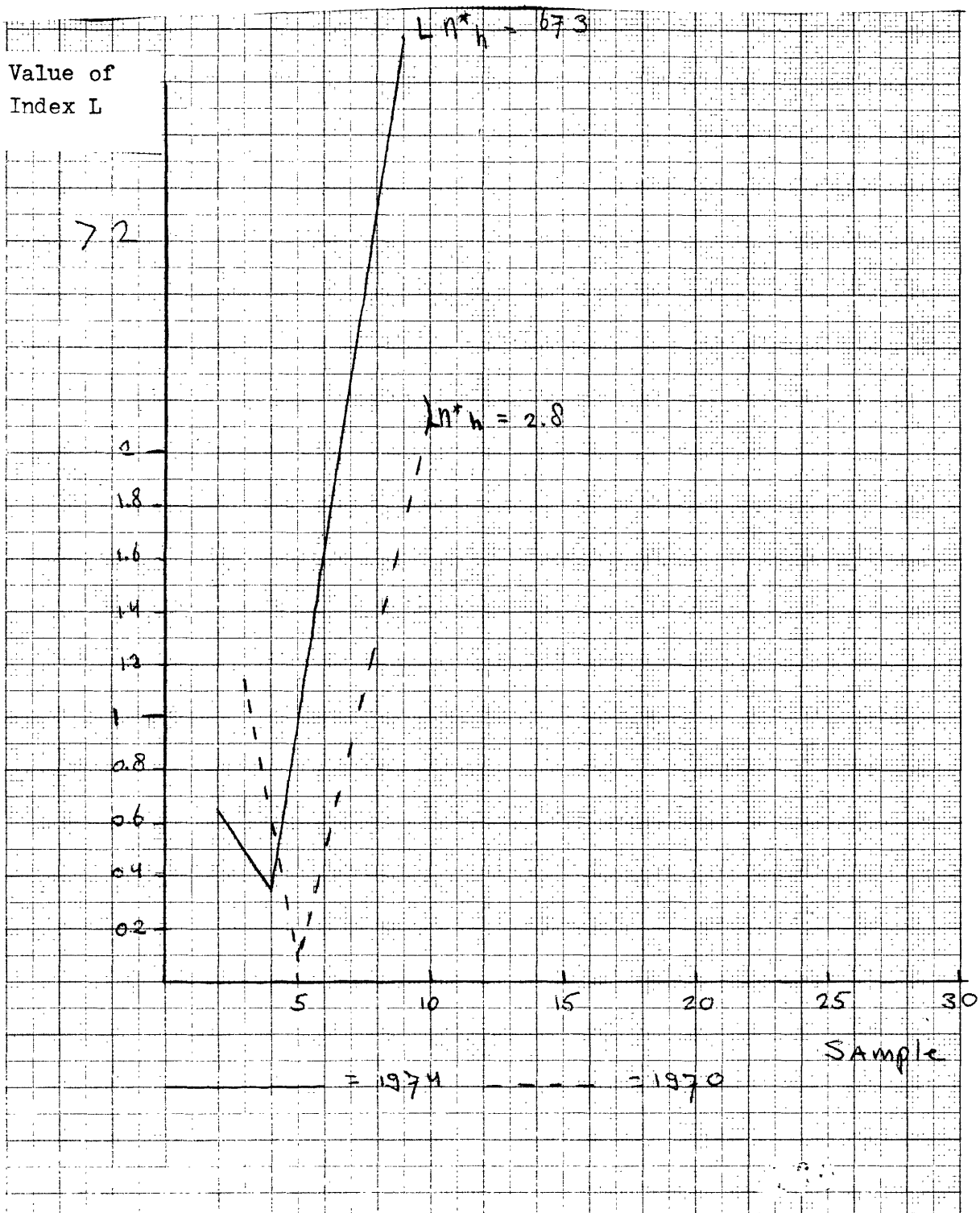


Table 5 Concentration coefficients of the soft drinks market. Variable: sales

year	number of firms	Spread coefficients		concentration ratio's		other concentration coefficients	
		V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	47	1.63798	.65637	47.5	64.4	78.36094	-131.78095
1971	44	1.57886	.66388	48.6	64.6	79.38202	-128.58831
1972	38	1.40718	.63214	47.7	65.4	78.42482	-126.61540
1973	38	1.35556	.60614	46.3	66.7	74.67230	-128.87901
1974	29	1.32377	.64058	53.1	78.4	94.90940	-114.09620

Table 6 Concentration coefficients of the soft drinks market. Variable: employees

year	number of firms	Spread coefficients		concentration ratio's		other concentration coefficients	
		V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	47	1.39862	.61281	41.1	59.9	62.89656	-137.86929
1971	44	1.46454	.63772	44.6	64.3	71.47442	-132.28980
1972	38	1.28697	.58528	42.6	63.9	69.90217	-131.70067
1973	38	1.28933	.58986	45.3	65.5	70.06250	-130.72250
1974	27	-	-	54.4	80.4	-	-

Table 7 Concentration coefficients of the soft drinks market. Variable: wages & salaries

year	N	Spread coefficients		concentration ratio's		other concentration coefficients	
		V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	47	1.54875	.64403	45.3	64.4	72.31119	-133.77039
1971	44	1.722303	.66595	50.4	67.5	90.20035	-127.32677
1972	38	1.51853	.63534	48.0	67.7	86.99861	-125.59568
1973	38	1.48097	.64287	49.2	69.4	84.03317	-124.70171
1974	27	1.43459	.66725	59.4	81.7	113.26150	-108.01550

Table 8 Concentration coefficients of the soft drinks market. Variable: Cash flow

year	N	V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	29	1.28256	.55970	51.7	69.1	91.20567	-121.52364
1971	27	1.13455	.53820	51.4	68.1	84.71943	-120.70035
1972	23	.98713	.48460	50.8	70.0	85.84423	-118.57005
1973	18	.76953	.41210	48.9	75.1	88.45410	-113.12182
1974	16	.80087	.44726	52.4	84.5	102.58749	-105.35132

Table 9 Concentration coefficients of the soft drinks market. Variable: gross investments

year	N	V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	40	1.72400	.70936	55.5	73.0	99.30408	-118.13954
1971	24	1.19117	.58169	53.4	78.1	100.78655	-112.42969
1972	35	1.62389	.66794	55.6	73.3	103.91458	-117.52446
1973	39	1.77336	.70842	51.8	71.4	106.27676	-116.33593
1974	28	1.69065	.73127	67.3	86.3	137.79582	-99.96434

Table 10 Concentration coefficients of the soft drinks market. Variable: exports

year	N	V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	11	1.54523	.69308	89.6	99.3	307.97512	-64.81264
1971	12	1.14265	.60106	81.6	98.8	192.13784	-78.86472
1972	11	1.33719	.65905	87.4	99.95	253.46161	-68.74303
1973	9	1.17645	.62052	98.2	-	264.89327	-60.92345
1974	10	1.02408	.55827	87.1	-	204.87314	-73.71545

Table 11 Concentration coefficients of the soft drinks market. Variable domestic sales

year	N	V	G	CR <sub>4</sub>	CR <sub>8</sub>	H	E
1970	48	1.67558	.65857	48.2	63.8	79.32458	-132.09468
1971	44	1.59812	.66286	49.3	64.8	80.77270	-128.47036
1972	37	1.40687	.62111	49.0	65.9	80.52141	-126.43837
1973	39	1.41368	.60461	48.9	65.7	76.88469	-129.36957
1974	29	1.35088	.63657	54.4	77.1	97.40959	-115.05669

Table 12 Linda-coefficients of the soft drinks industry. Variable: sales

year	L <sub>s</sub>	N <sup>x</sup>	N <sup>x</sup> <sub>m</sub>	LN <sup>x</sup> <sub>m</sub>	N <sup>x</sup> <sub>h</sub>	LN <sup>x</sup> <sub>h</sub>
1970	.28763	46	30	.20102	2	.69559
1971	.33815	43	17	.19540	2	.78094
1972	.29722	37	20	.19040	2	.64996
1973	.28568	37	18	.20064	2	.53497
1974	.31894	28	12	.25938	2	.55224

Table 13 Linda-coefficients. Variable: employees

year	L <sub>s</sub>	N <sup>x</sup>	N <sup>x</sup> <sub>m</sub>	LN <sup>x</sup> <sub>m</sub>	N <sup>x</sup> <sub>h</sub>	LN <sup>x</sup> <sub>h</sub>
1970	.26895	46	23	.16067	2	.75059
1971	.28543	43	23	.17761	2	.84852
1972	.27085	37	25	.17129	2	.84706
1973	.24953	37	37	.18664	2	.64111
1974	.35975	28	5	.24006	2	.51823

Table 14 Linda coefficientsVariable: wages & salaries

year	$L_s$	$N^x$	$N_m^x$	$LN_m^x$	$N_h^x$	$LN_h^x$
1970	.31314	46	20	.19005	2	.80059
1971	.36716	43	21	.21951	2	1.02873
1972	.34102	37	21	.20505	2	.90243
1973	.33625	37	16	.20371	2	.69165
1974	.37875	26	12	.30070	2	.66958

Table 15 Linda coefficientsVariable: cash flow

year	$L_s$	$N^x$	$N_m^x$	$LN_m^x$	$N_h^x$	$LN_h^x$
1970	.31989	28	24	.21612	2	.69472
1971	.31410	26	16	.18839	2	.54536
1972	.28729	22	20	.19502	2	.58615
1973	.27598	17	16	.19904	2	.52273
1974	.35644	15	7	.21975	2	.66411

Table 16 Linda coefficientsVariable: gross investments

year	$L_s$	$N^x$	$N_m^x$	$LN_m^x$	$N_{h<}^x$	$LN_{h<}^x$	$N_h^x$	$LN_h^x$
1970	.36623	39	13	.25581	2	.52878	39	.70261
1971	.40468	23	9	.24560	2	.67151	2	.67151
1972	.36098	34	23	.24873	2	.69228	34	1.06550
1973	.42161	38	16	.21248	2	.99070	38	61.07877
1974	.43399	27	12	.36669	2	.58623	27	23.18269

Table 17 Linda coefficientsVariable: exports

year	$L_s$	$N^x$	$N^x_m$	$LN^x_m$	$N^x_{h<}$	$LN^x_{h<}$	$N^x_h$	$LN^x_h$
1970	.98628	10	5	.90398	3	1.17712	10	2.88313
1971	.50520	11	5	.36378	2	.74605	11	2.89700
1972	.70002	10	5	.56074	3	.80434	10	13.28756
1973	.49357	8	4	.44715	2	.55602	8	29.90500
1974	.49045	9	4	.35037	2	.64568	9	67.32092

Table 18 Linda coefficientsVariable: domestic sales

year	$L_s$	$N^x$	$N^x_m$	$LN^x_m$	$N^x_h$	$LN^x_h$
1970	.28984	47	31	.20034	2	.70713
1971	.34837	43	17	.19557	2	.80302
1972	.31014	36	20	.19175	2	.67654
1973	.26880	38	38	.19066	2	.61491
1974	.33642	28	16	.26341	2	.67484

## 2.2 Cost-structure

The cost-structure of large soft drinks firms (more than 10 employees) has the following general shape (see table below).

Cost-structure of individual firms differ only slightly from this average picture, according to the CBS.

Cost-structure of large firms, as a percentage of production-value, (excise-tax excluded)

	<u>1972</u>	<u>1973</u>
Sugar and glucose-syrup	16.7	16.1
Fruit juices	8.4	7.6
Essences and extracts	7.3	6.0
Other materials, energy and packing costs	12.1	15.4
Total material-costs	44.5	45.2
Wages, Salaries and social charges	21.0	19.8
Depreciation allowances, other costs and profits	34.0	35.0
	<u>55.5</u>	<u>54.8</u>
Production-value	100	100

The table indicates that the soft-drinks industry is a materials-intensive branch, in which wages and social charges are relatively unimportant.



3.1 General remarks

In the following pages concentration in the most important product-markets will be reviewed. The following product markets of the soft drinks industry can be distinguished: fruit based lemonades, cola's, lemon lime drinks, tonics, soda waters and synthetic based carbonated drinks. Concentration ratio's of the latter two product markets have not been computed, because of their small size. The fast growing market of fruit juices is only partly incorporated in the statistics provided by the CBS.

A problem, which appears in investigating the various sub-markets is the distinction between firms and brands. In every sub-market about 20 firms operate but only handful of brands are sold. Though all firms are independent in a legal sense, many firms do not produce a brand of their own, but bottle and distribute drinks, sold under a well-known (american) brand-name. The most telling example are the Coca-Cola bottleries. Six of them sell Coca-Cola on the Dutch market, of which two are owned by Allied Breweries. Another large multinational, Heineken, sells american brands too. It has acquired the Dutch license for Pepsi Cola and Seven-up.

Apart from these foreign brands, Heineken markets soft drinks under its own brand-name: Vrumona.

Foreign brands sold by dutch bottleries are: Coca Cola, Fanta, Sprite, Minute Maid, 7-Up, Pepsi-Cola, Kinley Tonic.

Summarizing: the following systematization of dutch soft drinks firms can be made.

1. Firms, selling soft drinks under their own brand-names.

Several kinds of firms belong to this category.

- a. Independent, not-diversified firms. Only two of these firms have remained on the dutch market. Herschi (Hoensbroek) and Loots (Haarlem).
- b. Not-diversified firms, which are owned by foreign companies. Examples are Raak, owned by W.R. Grace & Co and Hero, which is 70 per cent Swiss (and 30 per cent Dutch) property.

- c. Soft drinks producers, belonging to a company, which has diversified into the soft drinks industry.

Such moves have been undertaken frequently by breweries and dairies.

2. Firms selling soft drinks of foreign brands. Two types of such bottleries can be distinguished:
  - a. Small bottling firms, whose exclusive activity consists of bottling products of an american origin.
  - b. Bottleries, that belong to a big multi-activity firm. Examples include the Coca Cola bottleries owned by Allied Breweries and the Pepse Cola and Seven-up bottling activities of Heineken.

Concentration in product-markets is measured with respect to brands, belonging to an independent economic unit.

The product market for fruit based lemonades is the only one, in which firms operate with more than one brand-name. Coca Cola for example participates in this product market with two brands and Heineken sells lemonades under the labels Vrumona and Si-Si.

### 3.2 The product market of fruit based lemonades (still drinks)

Carbonated and non-carbonated drinks, made on the basis of fruit juices is the most popular drinks category in the Netherlands. A large but declining share (from 45 per cent in 1970 to 40 per cent in 1974) of soft drinks sales belongs to this category. Several kinds of lemonades on a fruit base exist, corresponding to the different fruits used. The most popular is the one based on orange juice. Other fruit lemonades are those on the basis of black currants, lemon, cherries or a combination of two fruits (Lift). Hero has the largest assortment of fruit tastes.

All firms, participating in this market produce an orange-based lemonade. The leading four firms within this product market are Heineken with its Vrumona and Si-Si brands, Hero, Coca-Cola (with its Fanta and Lift brands) and Raak.

Table 19 Concentration ratio's for the product market of fruit-based lemonades.

Variable: turnovers

year	N <sup>x</sup>	CR <sub>4</sub>	CR <sub>8</sub>
1970	16	79.3	93.3
1971	16	73.8	91.0
1972	14	72.7	91.8
1973	11	77.6	94.6
1974	10	79.2	97.5

<sup>x</sup>Number of brands, belonging to independent economic units.

Concentration, as measured by the ratio's is high and not subject to big shifts. The leading four firms continuously cover about 80 per cent of the market.

The four leading firms remained the same during the period, but all rank-order positions were changed in 1974, as compared to 1970. Heineken expanded rapidly in these years and occupied the first position in 1974. The total number of firms participating in this product market declined from 28 in 1970 till 15 in 1974.

The number of brands decreased by five to 10 brands in 1974.

Of the disappearing brands 3 belonged to independent firms, one to a brewery (Stella Artois) and one to a grocery-chain (de Gruyter).

### 3.3 The product market of cola-drinks

Sales of cola's at producer's prices more than doubled between 1970 and 1974. Their share of domestic sales at producer's prices rose from 15 per cent in 1970 till 23 per cent in 1974.

The structure of the cola-market, as described by the two concentration ratio's did hardly change.

Two brands (Coca-Cola and Pepsi-Cola) sold by two concerns (Coca-Cola and Heineken respectively) have more than two thirdth of the total market. Besides these two leading brands the product market's structure is characterized by a tail of a shrinking number of firms.

This tail is shrinking in numbers, but not in importance, as the comparison between the  $CR_4$  and  $CR_8$  ratio's indicate.

Table 20 Concentration ratio's for the product market of cola drinks. Variable: sales

year	$N^x$	$CR_4$	$CR_8$
1970	14	98.0	99.3
1971	14	95.5	98.4
1972	13	94.4	99.0
1973	10	95.7	99.5
1974	10	95.8	99.8

<sup>x</sup>Number of brands (is identical to number of independent economic units.

Coca Cola's Holland Branch employs six bottling firms, of which two belong to Allied Breweries' subsidiary Skol. Heineken with its Pepsi Cola brand has increased its market share during the investigated period.

Competition between these two cola-brands has intensified in recent years. Competition takes place by means of advertising and price-setting.

Although the two cola-brands have officially the same price, Pepsi-Cola is priced lower in most super markets and other retail-outlets.

The sales ratio of Coca-Cola versus Pepsi-Cola has diminished from 6:1 in 1970 to 4:1 in 1974.

Rank order positions of the first three firms remained unchanged during the period. The positions of the other participating brands changed, however.

The total number of firms (including bottleries) operating in this market declined from 26 in 1970 to 15 in 1974.

Five of them were bottleries, of which three continued production after being taken over. The other 6 firms, which had closed down were independent firms (2) or soft drinks divisions of larger groups(4).

### 3.4 The product market for lemon-lime drinks

The share of lemon-lime drinks in total turnovers declined from 20,6% in 1970 till 14,1% in 1974.

This product market is dominated by Heineken, which has acquired the license for 7-Up production in the Netherlands. 7-Up is distributed from the Vrumona-plant of Heineken in Bunnik and from two plants, one in the Southern and one in the Eastern part of the Netherlands. Other sellers are Raak and Coca-Cola with its Sprite-label. No changes in composition and rank-order positions of the first four firms occurred during the investigated period. Heineken, with its 7-Up brand increased its market share to more than 50 per cent. In contrast to the market for fruit-based lemonades, consumers show a strong brand-loyalty in lemon-lime drinks. The brand-label 7-Up is almost considered identical for lemon-lime drinks by consumers.

Table 21 Concentration ratio's of the product market for lemon-lime drinks.

Variable: turnovers

year	N <sup>x</sup>	CR <sub>4</sub>	CR <sub>8</sub>
1970	13	90.6	97.4
1971	13	88.3	96.7
1972	12	89.7	98.0
1973	10	88.6	99.4
1974	10	90.3	99.6

<sup>x</sup> Number of brands, belonging to independent economic units.

Coca-Cola with its Sprite-label has not succeeded in establishing a great acceptance.

The total number of firms declined from 26 in 1970 till 15 in 1974. Within this sub-market 6 bottleries disappeared as independent companies, of which three continued production after being taken over. Two bottling plants were closed down.

### 3.5 The product market for tonics

Sales of tonics are of minor importance. Their share of soft drinks sales declined from 3.9 per cent in 1970 till 3.5 per cent in 1974.

Again, Heineken is the market leader of this product market with its Royal Club Tonics.

Other important brand labels are London Tonic (produced by Raak) and Kinley Tonic (produced by Coca-Cola).

Apart from some brands, which disappeared from the market, no changes worth mentioning, took place.

The rank order positions of the first four firms remained the same during all the years examined.

The total number of firms (including bottleries) fell by 8 to 14 firms in 1974. Ten firms left the market. Four of them were small bottleries, four were independent firms and two belonged to a larger diversified group. Two new-comers entered the market. One of them was established as a division of the Friesland cooperative, a dairy-firm, and represented a diversification. The other was a bottling plant of Heineken.

Table 22 Concentration ratio's of the product market for tonics. Variable: turnovers

year	N <sup>x</sup>	CR <sub>4</sub>	CR <sub>8</sub>
1970	16	92.4	97.6
1971	15	90.1	96.4
1972	12	92.8	98.9
1973	10	91.6	99.1
1974	10	90	99.5

<sup>x</sup> Number of brands, corresponding to independent economic units.

### 3.6 The product market for fruit juices

Growth in sales were rather fast and originate from three sources:

- imports

In contrast to other soft drinks categories, imports play an important, but declining rôle in sales of fruit juices. Belgium and W-Germany are the main exporters of these drinks. Imports declined from 12.8 million florins in 1972 to 11.3 million florins in 1974.

- Domestic production of fruit juices outside the soft drinks industry

The vegetables- and fruits canning industry also produces fruit juices but no indication of its importance are available.

- Domestic production of fruit juices by soft drinks firms

Production of fruit juices within this category rose more than four fold, during the period 1970-1974. Though the share of domestic output of these producers in total soft drinks remained low with 3.8 per cent in 1974. Five firms are active in this product market: Hero, Coberco, Coca-Cola, Raak and Friesland. Hero is the most important seller with a share of over 50 per cent.

Part IV

Distributional and performance aspects

4.1 Packing and distribution

Soft drinks are packed in bottles and in tincans. Canned soft drinks were introduced in 1971 but they do not take more than 5 per cent of sales currently.

All bottles used are returnable glass bottles. Two types of bottles are used: large one-liter bottles and small bottles with a content of 0.2 - 0.3 liter.

Large bottles have become popular and have overtaken small bottles as the most usual way of packing soft drinks (table 23).

Table 23 The share of bottled soft drinks, packed in large bottles (in percentages).

	<u>1966</u>	<u>1970</u>	<u>1973</u>	<u>1974</u>
Fruit based lemonades	53	70	87	85
Caffeine drinks	58	75	70	69
Lemon-lime drinks		}	90	90
Tonic	59	73	75	76
Soda waters		}	0	0
Total non-alcoholic drinks	57	71	84	82

The decrease in the share of large bottles, which occurred in 1974 can be attributed to the general recession in soft drinks output of that year. Large bottles felt the brunt of this decline more than soft drinks, packed in small bottles.

In 1971 there were some 800 wholesalers for soft drinks, handling 65 per cent of total sales. Since then, the number of wholesalers and their share of the soft drinks market has declined. In 1974 only 400 wholesalers for beverages were left. Some large soft drinks producers have integrated forward into wholesaling, mostly by taking over existing firms. Coca Cola has been an exception: the firm has always used its bottleries to make deliveries to retailers and Horeca-firms.



With respect to distribution, the most important distinction to be made is that between out door and home- consumption. Soft drinks are usually consumed at home. The Horeca sector accounted for some 20 per cent of total soft drinks sales in 1971 and this share probably decreased since then. The remaining 80 per cent is sold by various categories of retailers (table 24) The share of grocery-outlets and especially of supermarkets rapidly increased in recent years.

Table 24 Soft Drinks Distribution by Type of Outlet, 1971  
(per cent)

Sales to the Horeca sector	20
Sales for in-home consumption	80
of which: <sup>a</sup>	
Grocery outlets	38
Dairy outlets/milkmen	18
Off-licences	2
Greengrocers	2
Others	19

a figures do not add-up due to rounding

Source: Marketing in Europe, January 1972

Distributor's labels for soft drinks exist, but are of declining importance, covering less than 20 per cent of total soft drinks sales. The most important private label is the Albert Heijn label, which is manufactured by Raak. Just like beer, retailers sell two or more different brands of the same soft drinks variety: an expensive well-established producer brand and a cheap, less well-known or private label. 7-Up, Coca-Cola and to a lesser extent Hero are priced higher than comparable soft drinks brands.

#### 4.2 Advertising

Manufacturers of the so-called A-labels (well-established, and expensive), mentioned earlier compete almost wholly by means of advertising. In particular, Coca-Cola and Pepsi-Cola carry out a heavy rivalry for the consumer's guilder. Other soft drinks brands (B-labels) are much less heavily promoted. Although advertising remains an important competition weapon in the hands of at least some firms, total advertising expenditures for soft drinks have declined almost continuously since 1970. Table 25 gives the data, collected by the BBC (Bureau for Budget Controls).

Total advertising expenditures are underestimated by these data, because expenditure for cinema-advertising is not included. Coca-Cola, Pepsi-Cola and 7-Up are the prominent cinema-advertisers.

Table 25 The Evolution of Advertising Expenditures on Soft drinks. Some Media (million florins)

<u>Medium</u>	<u>1970</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Newspapers	2.5	1.7	0.76	0.9
Family magazines	0.3	0.3	0.3	0.2
Women's magazines	2.4	1.57	1.4	1.7
Radio/TV magazines	0.2	-	0.37	0.04
Other magazines	<u>0.6</u>	<u>0.3</u>	<u>0.5</u>	<u>0.7</u>
Total in print	6.0	3.87	3.33	3.54
Television	4.1	5.3	5.0	4.8
Radio	<u>0.3</u>	<u>0.4</u>	<u>0.27</u>	<u>0.3</u>
Overall Total	10.4	9.57	8.60	8.64

Source: BBC (Bureau for Budget Controls)

#### 4.3 Prices

As a result of stagnating demand, the Dutch soft drinks industry had large overcapacities during the first half of the seventies.

The increase in excise-tariffs by 14 cent, introduced in 1972, resulted in further stagnation.

Unutilised capacities and other competition-rousing factors put pressure upon prices, which could not be resisted. Price-competition came to the fore on two levels:

1. Manufacturers were no longer able to pursue the former policy of general price-increases.

Some manufacturers, carrying well-known brands (Coca-Cola, 7-Up, Vrumona) tried to avoid this price-competition as much as possible, but others (Raak, Loots) strove to improve capacity-utilisation by means of price-cutting in the hope of attracting demand.

2. No so long ago, consumer-prices were recommended by manufacturers and were usually adhered to by retailers.

However, in recent years most retailers have added a cheap brand-variety, to their soft drinks range.

Examples are Raak and Loots.

On the other hand, retailers have started to price the leading brands at lower levels than those recommended by manufacturers.

Table 26 gives a summary of the development of soft drinks prices during the seventies.

Table 26 Retailprices for some product-brands 1971-1976 (cents per liter)

	<u>Brand</u>	<u>Price 1971</u>	<u>Price 1976</u> <sup>2)</sup>
<u>Fruit-based lemonades</u> <sup>1)</sup>	Hero	85	95
	Raak <sup>3)</sup>	85	79-90
	Fanta	85	
	Loots		79
<u>Colas</u>	Coca-Cola	83	109-118
	Pepsi-Cola	83	89-99
	Raak	70	79-90
	Loots		79
<u>Lemon-lime drinks</u>	7-Up	100	109-123
	Raak	70	79-90
	Loots		95
<u>Tonics</u>	London Tonic	96	110-135
	Royal Club Tonic	96	125

Source: Marketing in Europe, January 1972 and own observations.

1. all orange flavoured
2. prices, recorded autumn 1976 in some selected shops.  
The interval gives the lowest and highest price noted.
3. prices of Albert Heijn's private label are considered as Raak-prices.

Comments on table 26

A conclusion, to be drawn from table 26 is, that prices of soft drinks have shown only moderate increases during the last five years. In some cases, the increase is even less than the higher excise-tariff of 14 cents.

Summarizing, it may be said that price-competition has become a common feature of the market for soft drinks. In this respect the three sub-markets of the Dutch beverage-industry show a remarkable resemblance. Price-reductions within the soft drinks sector have been small, if compared to other sectors.

Price-setting by retailers can be considered to be the main cause of price-competition within this sector too. Unutilised capacities may have prompted some firms not to raise prices. Part of the price stability can be attributed to retailers, in search for cheap brands, however. Other large manufacturers (Heineken, Coca-Cola) tried to create and enforce brand-loyalty by means of advertising. Here the only cause of price-reductions were actions of retailers.

In this respect the soft drinks industry resembles of breweries and distilleries where price competition has also been sharpened, though in these two latter industries, price-reductions were of an even more general nature. So, prices of distilled products decreased to an extent larger than the rise of excise-tariffs introduced in 1976.

In the different product-markets divergent developments occurred, however.

Competition in the product market for fruit-based lemonades (the orange flavoured ones) was very fierce. Raak set its prices on a low, competitive level and could enlarge its market share in this way. Hero, as a well-established brand, was sold at relatively low prices by retailers, of the overall price uniformity prevailing in 1971 not much is left in 1976.

Within the product market for colas, the two levels on which competition takes place, can be visualized clearly.

On the one hand Raak is sold as a cheap cola-brand, a position, Raak already occupied in 1971. On the other hand, Pepsi-Cola as an official Cola-brand is sold (by retailers) at prices, below those of Coca Cola.

The price, as recommended by manufacturers amounted 130 cents per liter, for both Coca Cola and Pepsi Cola (autumn 1976). In practice, however both Colas are sold at lower prices than those recommended, and Pepsi Cola even much lower.

The brand with the greatest reputation within the product market for lemon-lime drinks is 7-Up. No brand with an equivalent reputation has established itself in this product market until now, notwithstanding several efforts. Raak and Loots are two cheap brands of lemon-lime drinks.

The product market for tonics is exceptionable in the sense, that official brands prevail. English brand-names, having a certain snob-appeal are used for tonics. London is the tonic brand of Raak and Royal Club belongs to Heineken. Prices of tonics do differ, per retail-outlet, but in general they are on a high level if compared to other soft drinks categories. Raak, a fierce price competitor in other product markets, relies upon its brand-image to sustain its marketshare here.

## Sales Offices

### Belgique - België

*Moniteur belge* — *Belgisch Staatsblad*  
Rue de Louvain 40-42 —  
Leuvenseweg 40-42  
1000 Bruxelles — 1000 Brussel  
Tél. (02) 512 00 26  
CCP 000-2005502-27 —  
Postrekening 000-2005502-27

#### *Sous-dépôt* — *Agentschap*:

Librairie européenne —  
Europese Boekhandel  
Rue de la Loi 244 — Wetstraat 244  
1040 Bruxelles — 1040 Brussel

### Danmark

*J.H. Schultz* — *Boghandel*  
Møntergade 19  
1116 København K  
Tel. 14 11 95  
Girokonto 1195

### BR Deutschland

*Verlag Bundesanzeiger*  
5 Köln 1 — Breite Straße — Postfach 108 006  
Tel. (0221) 21 03 48  
(Fernschreiber: Anzeiger Bonn 08 882 595)  
Postscheckkonto 834 00 Köln

### France

*Service de vente en France des publications  
des Communautés européennes*  
*Journal officiel*  
26, rue Desaix  
75 732 Paris Cedex 15  
Tél. (1) 578 61 39 — CCP Paris 23-96

### Ireland

*Stationery Office*  
Beggar's Bush  
Dublin 4  
Tel. 68 84 33

### Italia

*Libreria dello Stato*  
Piazza G. Verdi 10  
00198 Roma — Tel. (6) 8508  
Telex 62008  
CCP 1/2640

#### *Agenzie*:

00187 Roma — Via XX Settembre  
(Palazzo Ministero  
del tesoro)  
20121 Milano — Galleria  
Vittorio Emanuele 3  
Tel. 80 64 06

### Grand-Duché de Luxembourg

*Officé des publications officielles  
des Communautés européennes*  
5, rue du Commerce  
Boîte postale 1003 — Luxembourg  
Tél. 49 00 81 — CCP 191-90  
Compte courant bancaire:  
BIL 8-109/6003/300

### Nederland

*Staatsdrukkerij- en uitgeverijbedrijf*  
Christoffel Plantijnstraat, 's-Gravenhage  
Tel. (070) 81 45 11  
Postgiro 42 53 00

### United Kingdom

*H.M. Stationery Office*  
P.O. Box 569  
London SE1 9NH  
Tel. (01) 928 6977, ext. 365  
National Giro Account 582-1002

### United States of America

*European Community Information Service*  
2100 M Street N.W.  
Suite 707  
Washington D.C. 20 037  
Tel. (202) 872 8360

### Schweiz - Suisse - Svizzera

*Librairie Payot*  
6, rue Grenus  
1211 Genève  
Tél. 31 89 50  
CCP 12-236 Genève

### Sverige

*Librairie C.E. Fritze*  
2, Fredsgatan  
Stockholm 16  
Post Giro 193, Bank Giro 73/4015

### España

*Libreria Mundi-Prensa*  
Castelló 37  
Madrid 1  
Tel. 275 46 55

### Other countries

*Office for Official Publications  
of the European Communities*  
5, rue du Commerce  
Boîte postale 1003 — Luxembourg  
Tél. 49 00 81 — CCP 191-90  
Compte courant bancaire:  
BIL 8-109/6003/300

8764

---

FB 180,-      DKr. 27,75      DM 11,50      FF 23,25      Lit. 4000      Fl. 12,-      £ 2,85      \$ 4.65

---

OFFICE FOR OFFICIAL PUBLICATIONS OF THE EUROPEAN COMMUNITIES  
Boîte postale 1003 - Luxembourg

7405