COMMISSION OF THE EUROPEAN COMMUNITIES

A STUDY OF THE EVOLUTION OF CONCENTRATION IN THE PHARMACEUTICAL INDUSTRY IN THE NETHERLANDS

November 1975

The following report — a study of the concentration process in the pharmaceutical industry in the Netherlands — is part of the general programme of studies undertaken by the Commission to provide it with detailed information on the structure of concentration trends in major industries as a suitable basis for implementing its competition policy.

It outlines developments between 1970 and 1973 and should be examined in conjunction with an earlier study which covers the period 1963—69 (Doc. IV/350/73).

Readers may also find it useful to consult the reports already published on concentration in the pharmaceutical industry in Germany, France, the United Kingdom, Italy and Belgium.

COMMISSION OF THE EUROPEAN COMMUNITIES

A STUDY OF THE EVOLUTION OF CONCENTRATION IN THE PHARMACEUTICAL INDUSTRY IN THE NETHERLANDS

by
H.W. de Jong and R. de Lange

November 1975

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

ANNEXES: TABLEAUX DE CONCENTRATION relatifs à l'Industrie PHARMACEUTIQUE (NICE 313.1) et quelques marchés des produits. 65

CONCENTRATION IN THE PHARMACEUTICAL INDUSTRY IN THE NETHERLANDS

1.1. General Introduction

The Dutch pharmaceutical industry had 11.600 employees in 1973 and its sales were Fls 1.200 million, achieved by 53 firms. The industry arose mainly since the second world war out of a number of related industries, such as yeast and alcohol manufacturing, leading up to the production of antibiotics, the electrotechnical industry (vitamin D), the meat industry (hormones), extraction firms (alcaloides) and a wide ranging, specialised wholesale trade.

Domestic producers are not the most important sellers on the Dutch market. About 70 % of the value of domestic consumption of pharmaceuticals is imported and the share of imports has been growing. On the other hand, the leading Dutch firms are major exporters, together securing a seventh place on the world's pharmaceutical exporting countries' list. In 1973, 64 % of Dutch output was sold abroad (an amount of Fls 742 million), of which 60 % went to other European countries.
On the other hand the leading sellers, enumerated in table 5 are, as far as foreign firms are concerned, not also producing in the Dutch markets. They import their pharmaceutical base materials from abroad and process, package and label them for sales on the market.

Per capita domestic consumption of pharmaceuticals in the Netherlands (about Fls 100.- in 1973) is lower than in other industrialised countries. This may be due to the fact that in Holland the doctor has to prescribe drugs which are freely available in many other countries. Moreover, the Dutch doctors seem to be comparatively cautious prescribers.

Growth of sales before 1971 was 10 to 12 % per annum at constant prices, but is declining now to between 6 and 8 %. Traditionally strong growing pharmaceutical products such as hormones, tranquillizers, antibiotics and vitamins are no longer in the vanguard.

Market saturation for these major products causes declining overall growth. At the same time, the industry's innovations are no longer spectacular. Competition is nowadays mainly confined to product differentiation, under which the leading firms, dominating product markets, try to maintain their positions by means of variations on earlier basic findings and the widening of applications.

Consequently, the so-called specialties-market is increasing in importance (70 - 75 % of total sales, including non-patented drugs), selling costs are rising and end product prices, which were fairly stable until 1971, are rising significantly.

The research- and development costs, today amounting to some 9 % of sales, have a tendency to rise. In 1970 the industry spent Fls 74 million, in 1973 Fls 105 million, on R and D, but it is doubtful whether real research effort has risen at all. Future growth seems dependent on breakthroughs in some major new fields, such as arteriosclerosis, heart and vascular illnesses, cancer and rheumatism. New Dutch pharmaceutical products have to be registered, which can only be achieved after the effectiveness of a drug has been proved. Elaborate testing under Government supervision is costly and lenghtens the introductionary period, as is the case in other countries, so that the development period of a new drug may to-day be as long as 5 to 10 years. On the other hand, the life-cycle of a succesfully introduced drug is shortened by imitation and circumvention of patents.

The forces enumerated above are mainly responsible for the declining rate of growth of the pharmaceutical industry and the relative stagnation in several major product markets. They also contribute to high concentration as part two of this report clearly demonstrates.

1.2. Differences with earlier report

In 1971 a first report on the development of concentration in the pharmaceutical industry was published, covering the period 1963 - 1969. The present report differs from the earlier one in some respects:

- The general industry table refers to all firms with more than 10 employees, instead of the 50 and more employees in the first report. This is due to an elaboration of the statistical material provided by the Central Bureau of Statistics.

- Financial data were not made available to us, not even investment figures, as were used in the previous report. Three of the five major producing firms refused to provide investment data. Because two of them are integrated into multinational, multiproduct firms, no way of producing the highly volatile annual investment figures was possible.

- Whereas the previous report used data for seven of the largest firms, the present one refers to only five firms. This is due to the fact that one of the previously reporting companies was taken over by a foreign pharmaceutical company and stopped publishing an annual report. The seventh company simply refused to provide data. Fortunately, this is the smallest company of the seven with a marginal impact on the overall outcome.

- The five leading producing companies have 70 % of total employees, 75 % of total exports and between 60 and 70 % of other variables. As was stated in the introduction, foreign companies with importing subsidiaries on the Dutch market are in many product markets the really dominating sellers.

- In part two of this report, the product markets are surveyed. This survey is based exclusively upon prescribed drugs, because no other source is presently available for calculating the shares of the leading products and companies.

1.3 Overall developments 1963 - 1974

A longterm view of Dutch pharmaceutical industry development is now possible by means of a review of the period 1963 - 1974. Table 1 summarizes the course of a few variables.

As will be seen, there was a slight decrease in the number of large firms, a nearly 50 % rise in employees and a fourfold rise in domestic sales, exports and thus total sales. Imports, however, rose nearly sevenfold during these years, though they no longer gained on exports since 1971. As was noted in the first report (in Dutch, May 1972) these imports consist of some 80 % pharmaceutical bulk materials, delivered by foreign producers to their Dutch processing, packaging and selling subsidiaries or to small independent Dutch companies and some 20 % specialities, likewise sold directly or indirectly on the Dutch market. The small Dutch producers often have licences from large foreign companies, especially German and French ones.

In reverse, the leading Dutch producers, who are multinational companies, likewise supply their foreign subsidiaries with both bulk and specialty products.
The figures indicate the stagnating domestic market of the early seventies so that total sales growth was wholly due to the continued growth of exports.

The sample of the five largest producers - who were not also the largest sellers, due to the fact that several large, foreign based, multinational companies own no producing plants in the Netherlands - decreased their share in total employment from 76.8 % in 1970 to 68.3 in 1974.

Their share in total wage costs and social charges accordingly declined nearly proportionately. Their employment stabilized in the early seventies at about 8.000, whereas branch employment rose some 18 %.
Increasing mechanisation, as well as rationalization following upon big industry mergers in the later sixties may have been mainly responsible for this relative decline, for the growth of these five companies measured in sales was faster than that of the pharmaceutical industry as a whole.

To a small extent the decline in reporting companies in the totals for 1971 and 1972 may also have contributed.
Tables 2 and 3 survey the developments during the early seventies for all pharmaceutical companies and for the five leading producers. They should speak for themselves.

1.4. Companies and products

Tables 4 and 5 give the leading sellers and the leading products on the domestic market at some intermittent years.
Table 4 brings out clearly the international character of the industry. Many of the large multinational companies in the chemical and pharmaceutical branch are represented on the Dutch market. Their sales are given in prescribed drugs, as this is what matters from a point of view of concentration (moreover, figures on non-prescribed drugs or bulk products are not available). As will be seen four foreign firms surpassed the main Dutch firm in domestic sales, and another seven preceded the second largest domestic company in 1973.

Between the twenty leading firms there is a surprisingly high stability in relative positions throughout the years. Calculation of the Spearmann (rank-correlation) coefficient for 1969 on 1973 and 1971 on 1973 gives as result: 0.844 and 0.891. As maximum values are 1.00, and the coefficient is figured out for the whole industry, these results appear to be rather high, indicating that the shifts in relative market positions for the firms in the pharmaceutical industry are, contrary to what is said, low.

Antibiotics have remained the leading group, but cardiovasculars have surged forward and have surpassed psychotropics. Likewise contraceptives, diuretics and spasmolytics are also showing a strong growth.

Among the leading products, the sharp rises to prominence of Indocid and Vibramycin are noteworthy, whereas Pen Britin's share declined since 1971. Also, products like Aldomet, Clamoxyl and several others are coming up fastly.

Another noteworthy phenomenon has been the fast growth between 1969 and 1973 of several initally small companies: Wyeth, Schering, Roussel, Boots Labaz and Astra are prominent examples. This is not unconnected with the introduction and/or relatively quick growth of individual products, as the preceding table shows. Most of those products originated abroad.

1.5. Concentration

On the basis of table 4, the shares of the leading four and eight selling companies of the domestic market of prescribed drugs may be figured out (table 6). Their shares rose between 1969 and 1973, but the share of the eight largest sellers rose more than that of the four largest (by 5.2 percentage points), indicating that the second echelon of selling companies grew faster than the top group.

Table 6: Marketshare largest sellers of prescribed drugs in the domestic market (%)

	4 largest	8 largest
1969	29.7	45.0
1971	31.2	47.1
1973	36.9	57.4
	====	====
Increase 1969-1973	7.2	12.4

Tables 7 to 11 give the calculated coefficients for the years 1970 - 1974 (incl.)
The spread coefficients (variation and Gini coefficient) show an increasing disparity between the larger and smaller (producing) companies as far as total sales and exports are concerned, but a decreasing tendency for employees and wages. This was explained already (see 1.3).
These tables - in comparison with table 6 - also highlight the large discrepancy between concentration ratios for the largest producers and largest sellers, because of the fact (already mentioned) that the foreign

multinational companies shipped to their sales subsidiaries from abroad, whereas the domestically producing multinationals - whether of Dutch or foreign origin - sold the overwhelming part of their output also abroad. What the figures in these tables bring out forcefully therefore is nothing more than that a Dutch pharmaceutical industry hardly exists. The companies concerned are all multinationals, except some small, local conversers of imported raw materials. As a result, the explanatory power of the tables 7 - 10, is very limited (only note the high and increasing share of exports of the 4 largest producers).

1.6. Linda - coefficients

Tables 12 - 16 show the development of the Linda index. They exhibit a considerable degree of inequality with a tendency to leadership for the largest company. That the inequality index is highest for employees and salaries and lowest for sales is probably understandable from the fact that one leading foreign multinational company - Merck, Sharp and Dohme - has its European headquarters and producing plant in the Netherlands, but - in contrast to the large Dutch multinationals - carries out no research in Holland. This, plus the type of product shipped abroad, explains the high sales per employee of this company, so that the Linda index reflects this. The inequality is much lower for the sales variable.
The decline in inequality for the export variable is remarkable; it stands in contrast to the not insignificant increase in concentration of exports effected by the 4 largest producers (table 10). The same is true for the variable domestic sales.

Table 1

Overall development in the pharmaceutical industry 1963 - 1974

	1963	1966	1969	1972	1973	1974
1. Number of firms						
More than 50 employees	26	27	25	23	24	24
More than 10 employees	—	—	—	21	26	29 x)
2. Employees, total industry (rounded off to nearest hundred)	7900	8900	10.100	11.800	11.800	11.800
3. Sales, domestic market million guilders	133.4	189.4	276.8	423.0	423.0	420.0
4. Exports, million guilders	192.0	284.1	428.0	622.0	744.5	847.0
5. Imports, million guilders	87.3	165.0	332.5	451.8	561.0	610.0
6. Total sales, all pharm. companies, million guilders	325.4	473.5	704.8	1045.0	1167.5	1267.0
7. Gross added value million guilders	—	255.0	455.0	701.9	—	—

x) The sudden rise from 1972-1974 was due to 1) the inclusion of some cosmetics & pharmaceutical products companies and 2) to 3 borderline cases, because of fluctuations, which were included in these years.

TABLE 2

ALL PHARMACEUTICAL COMPANIES
(more than 10 employees)

	1970	1971	1972	1973	1974	Source
Number of companies x)	53	49	44	50	53	C.B.S.
Number of employees	10.154	11.766	11.780	11.800	11.820	Nepro
Average gross wages per employee	19.500	21.900	25.500	28.000	30.800	Chem.Prod.Statistiek ('69: 18.100)
Total gross wages and social charges (x *f* 1 mln)	197.9	257.8	300.4	330.4	364.1	G.B. Jaarverslag 1973
Sales on Dutch market (x *f* 1 mln)	353	414	423	423	420	Nepro
Sales abroad (exports) (x *f* 1 mln)	511.1	550.5	622.0	742.0	847	Nepro
Total sales (x *f* 1 mln)	864	965	1045	1165	1267	Nepro
Imports (x *f* 1 mln)	400.8	418.8	451.8	561.0	610.0	Nepro

TABLE 3

5 LEADING PRODUCING COMPANIES

	1970	1971	1972	1973	1974
Number of employees	7763	7988	7759	7816	8072
Average gross wages per employee	19.500	21.900	25.500	28.000	30.800
Total gross wages and social charges (x ƒ 1 mln)	151.4	174.9	197.9	218.8	248.6
Sales on Dutch market (x ƒ 1 mln)	179	203	213	228	266
Sales abroad (export) (x ƒ 1 mln)	446	524	574	700	852
Total sales (x ƒ 1 mln)	625	727	787	928	1118

TABLE 4

LEADING SELLERS OF PRESCRIBED DRUGS

(in million Fls.)

			1969	1971	1973
1.	Hoffmann La Roche	(Swiss)	25	39	46
2.	Ciba - Geigy	(Swiss)	24	33	40
3.	Merck Sharp Dohme	(U.S.)	19	31	39
4.	Beecham	(U.K.)	21	25	30
5.	Akzo - Pharma	(Dutch)	21	24	28
6.	Hoechst	(W. Germany)	13	17	22
7.	Pfizer	(U.S.)	9	16	20
8.	Wyeth	(U.S.)	3	8	16
9.	Sandoz	(Swiss)	7	11	15
10.	Schering A.G.	(W. Germany)	4	8	13
11.	Ici	(U.K.)	5	8	13
12.	Roussel	(French)	2	5	12
13.	Philips - Duphar	(Dutch)	5	8	11
14.	Schering Corp.	(W. Germany)	6	10	11
15.	Specia	(Italian)	7	9	10
16.	Gist Brocades	(Dutch)	6	9	10
17.	Boehringer Ing.	(W. Germany)	4	6	9
18.	Boots	(U.K.)	0.4	3	8
19.	Labaz	(French)	3	4	8
20.	Astra Chemie P.		1	4	8
			====	====	====
Total 20 leading sellers			185,4	278	369

TABLE 5

SALES LEADING PRESCRIBED PRODUCTS
in million guilders

Brand name	Producer	1969	1971	1973
Indocid	Merck, Sharp & Dohme	9.3	16.8	19.1
Vibra Mycin	Pfizer	5.9	12.7	15.9
Valium	H.L. R.	9.3	14.2	13.1
Pen Britin	Beecham	15.3	17.3	13.0
Aldomet	Merck, Sharp & Dohme	4.9	8.1	12.0
Lasix	Hoechst	4.6	6.7	8.8
Clamoxyl	Beecham	–	–	8.3
Lyndiol	Akzo	5.6	6.9	8.0
Librium	H.L.R.	7.0	7.3	7.7
Glifanan	Roussel	0.9	3.1	7.4
Hydergine	Sandoz	2.9	5.5	7.0
Mogadon	H.L.R.	2.0	4.3	6.7
Brufen	Boots	–	1.8	6.3
Stederil d.	Wyeth	0.5	1.2	5.3
Broxil	Beecham	4.7	5.2	5.1

TABLE 7

CONCENTRATION COEFFICIENTS PHARMACEUTICAL INDUSTRY

Variable : sales

Year	Number of firms	Spread coefficients		Concentration coefficient	Other concentration coefficients	
		V	G	CR 4	H	E
1970	53	2.32855	.64299	66.51	121.17246	-120.24921
1971	49	2.33515	.66747	69.17	131.69291	-114.87389
1972	44	2.17743	.65708	68.73	130.48214	-113.74372
1973	50	2.54362	.71815	73.45	149.39973	-107.16315
1974	53	2.91781	.80556	80.01	179.50266	- 94.08859

TABLE 8

Variable : employees

Year	Number of firms	Spread coefficients		Concentration coefficients	Other concentration coefficients	
		V	G	CR 4	H	E
1970	53	2.77118	.69793	72.40	163.76347	-109.62004
1971	49	2.26728	.60093	64.02	125.31714	-122.13860
1972	44	2.04213	.56842	61.47	117.50698	-123.47872
1973	50	2.21565	.58418	61.62	118.18247	-125.12606
1974	53	2.37202	.60863	63.07	125.02815	-123.40138

TABLE 9

Variable : salaries

Year	Number of firms	Spread coefficients		Concentration coefficient	Other concentration coefficients	
		V	G	4	H	E
1970	53	2.75719	.69386	72.01	162.30402	-110.23164
1971	49	2.25792	.59819	63.77	124.39510	-122.49563
1972	44	2.04118	.56832	61.45	117.41871	-123.50019
1973	50	2.21144	.58303	61.51	117.80912	-125.27376
1974	53	2.37134	.60855	63.06	124.96695	-123.41627

TABLE 10

Variable : exports

Year	Number of firms	Spread coefficients		Concentration coefficient	Other concentration coefficients	
		V	G	4	H	E
1970	53	2.88711	.79512	79.23	176.14005	- 96.09512
1971	49	3.06971	.86884	86.27	212.71654	- 79.91948
1972	44	2.77863	.83312	83.46	198.19944	- 85.22352
1973	53	3.22493	.87436	86.30	215.09819	- 79.99118
1974						

TABLE 11

Variable : domestic market

Year	Number of firms	Spread coefficients		Concentration coefficients	Other concentration coefficients	
		V	G	4	H	E
1970	53	1.67711	.42709	47.94	71.93768	- 145.04800
1971	49	1.46960	.40000	46.04	64.48395	- 145.67879
1972	44	1.39616	.40371	47.07	67.02879	- 141.36733
1973	50	1.62472	.45111	50.41	72.79437	- 141.59041
1974	53	1.99422	.55024	58.72	93.90437	- 132.36510

TABLE 12

LINDA COEFFICIENTS PHARMACEUTICAL INDUSTRY

Variable : sales

Year	L_sS	N^*	N_m^*	LN_m^*	N_h^*	LN_h^*
1970	.44718	5	4	.37602	2	.53381
1971	.48836	5	4	.38826	2	.63818
1972	.46311	5	4	.38394	2	.60726
1973	.51165	5	3	.40215	2	.62115
1974	.48476	5	3	.39408	2	.57544

TABLE 13

Variable : employees

Year	L_s	N^*	N_m^*	LN_m^*	N_h^*	LN_h^*
1970	.59193	5	3	.58245	2	.60141
1971	.54255	5	2	.54255	2	.54255
1972	.54409	5	2	.54409	2	.54409
1973	.58610	5	5	.57479	3	.59905
1974	.59129	5	5	.56469	3	.61607

TABLE 14

Variable : salaries

Year	L_s	N^*	N_m^*	LN_m^*	N_h^*	LN_h^*
1970	.59351	5	3	.58574	2	.60128
1971	.54301	5	2	.54301	2	.54301
1972	.54444	5	2	.54444	2	.54444
1973	.58602	5	5	.57467	3	.59880
1974	.59086	5	5	.56445	3	.61544

TABLE 15

Variable : exports

Year	L_s	N^*	N_m^*	LN_m^*	N_h^*	LN_h^*
1970	.52894	5	4	.41059	2	.72727
1971	.53665	5	5	.44019	2	.75847
1972	.49819	5	5	.42437	2	.65603
1973	.51825	5	5	.46563	2	.65000
1974	.48179	5	5	.43213	2	.57675

TABLE 16

Variable : domestic market

Year	L_s	N^*	N_m^*	LN_m^*	N_h^*	LN_h^*
1970	.67175	5	4	.45783	2	.97500
1971	.57994	5	4	.40102	2	.79556
1972	.56488	5	4	.38687	2	.77457
1973	.53404	5	4	.35218	2	.77292
1974	.45482	5	4	.34702	2	.59692

2. The Product Markets

We will discuss the main aspects of the separate product markets according to the order of importance of these markets expressed in sales values of 1973. Most of these markets consist of several sub-markets and the degree of substitutability between the individual products in such therapeutic groups will be indicated as we go along. At the end of this survey some common features will be given.

The figures given in the survey, of sales, market shares, degrees of concentration, etc., are rounded off to the nearest integer and are based on industry statistics as far as units and money values are concerned. Market shares, concentration degrees etc. are figured out by the authors. Concentration- and Linda-coefficients are given for every therapeutical market.

2.0. Some overall figures of product markets

In the table below, the total sales figures of eleven therapeutic markets for the years 1968 - 1973 are given in million guilders. As will be seen, there was a strong but varying growth for all groups during these years.

	1968	1969	1970	1971	1972	1973
Antibiotics	31.0	44.0	51.0	60.2	66.9	74.8
Cardiovascular drugs	22.5	29.7	38.4	47.6	58.8	68.8
Psychotropics	28.3	33.7	41.0	50.6	55.2	58.5
Anti-rheumatics	14.7	18.2	24.8	30.4	35.2	40.0
Dermatotherapeutics	14.2	17.4	21.8	25.8	29.2	34.3
Analgesics						
Gynaecologicals	8.3	10.8	14.0	18.0	24.9	29.5
Diuretics	9.0	11.3	13.2	17.4	21.6	25.2
Antidiabetics	10.4	12.3	13.5	16.3	19.2	20.7
Hormones	9.0	10.5	12.5	14.2	16.3	19.2
Sedatives and hypnotics	7.3	8.4	10.0	11.8	13.7	15.0
Spasmolytics	5.2	5.9	8.4	11.1	13.6	15.4

The following tables show that sales in the main product groups are heavily concentrated. Four or eight leading products usually account for over 40 percent, resp. over 60 percent of sales. The two notable exceptions are dermatotherapeutics and, especially, hormones, where concentration is low and moreover receding. In the subsequent paragraphs the subject will be discussed in detail.

Concentration ratios of the four leading products

	1969	1970	1971	1972	1973
Antibiotics	62.8	64.1	65.3	60.6	56.5
Cardiovascular drugs	53.0	50.2	39.7	37.9	38.7
Psychotropics	59.4	66.3	66.2	49.1	45.9
Anti-rheumatics	73.1	75.5	75.7	75.7	76.1
Dermatotherapeutics	34.8	34.6	32.8	32.0	30.0
Gynaecologicals	71.5	71.1	64.3	69.0	66.9
Diuretics	73.5	76.8	78.2	76.0	74.9
Antidiabetics	76.3	68.3	61.6	63.3	67.0
Hormones	28.0	25.1	23.5	21.4	22.3
Sedatives and hypnotics	53.6	55.9	61.0	62.8	63.1
Spasmolytics	58.5	54.7	47.7	46.0	43.3

2.1. Antibiotics

Sales growth was spectacular in this product market, from Fls. 30 million in 1968 to more than Fls. 70 million in 1973. The number of units sold increased much more slowly, viz. from 2.1 million to 2.5 million, so that unit price rises are responsible for the increase in sales. The most important sub-groups in this product market are broad and middle spectrum antibiotics, followed by penicillins and derivatives. In 1969 the latter group was the dominating one. The antibiotics market is controlled by a small number of firms of which Beecham (U.K.) and Pfizer (U.S.) are the largest. Both companies are the leading ones in their resp. sub-group markets, viz. broad- and middle spectrum antibiotics (Beecham) and penicillins (Pfizer). The shift in their relative position seems due to the varying rates of growth of these sub-groups.

Total sales of antibiotics
(in million Fls.)

1968	31
1969	44
1970	51
1971	60
1972	67
1973	75

Growth of sales is declining from 40 % in 1968/69, to 12 % in 1972/73.

Table 1 : Market shares of the four leading sellers

Variable : sales

		'69	'70	'71	'72	'73
B	Beecham	43	39	34	31	35
A	Pfizer	21	24	21	21	21
B	Mycofarm	6	7	8	7	6
A	Hoffmann-La Roche				3	3
A	Schering	1	1	2		
	CR 4	71	71	65	62	65

A = broad- and middle spectrum antibiotics
B = penicillins and derivatives

Beecham's market share declined, but the company introduced Clamoxyl in the beginning of 1973; this product achieved a 10 % market share within the course of one year. This rise was achieved at the expense of Penbritin, a product also made by Beecham and it is not impossible that Clamoxyl will fortify Beecham's position again. Mycofarm, a subsidiary of Gist-Brocades, has a distinctly lower share of the market. The stability of the leading three firms is rather pronounced. Market fluidity was more important among the leading products in this therapeutic group:

Market shares of the leading 4 and 8 products

	1969	1970	1971	1972	1973
4 products	60	65	65	60	55
8 products	75	75	75	75	70

The percentages have been rounded off to the nearest fives.

Table 2 : Linda - coefficients of the market for antibiotics

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h	N^*_h	LN^*_h
1969	1.02381	5	2	1.02381	2	1.02381	5	6.58379
1970	.77165	5	2	.77165	2	.77165	5	3.75261
1971	.81028	5	2	.81028	2	.81028	5	2.19578
1972	.75638	6	2	.75638	2	.75638	4	1.36010
1973	.83439	6	2	.83439	2	.83439	4	1.39941

The Linda-coefficients show a high degree of inequality, which is persisting to a large extent during the period. There is a narrow oligopoly of only two firms, with a pronounced dominant position for the first firm. The second maximum point indicates an extremely high degree of inequality, which is however fastly declining.

Prices vary according to the field of application. Thus, the daily price of Penbritin was between 2.21 to 3.11, that of Clamoxyl varied between 3.48 and and 6.96 according to the prescribed doses.

A substantial difference exists between the mark-name product and non-identified products of a different chemical substance but having a similar therapeutic value. In the case of Vibramycin, Pfizers most important product, the price was 2.75, as against 0.80 for a therapeutically identical loco-product.

2.2. Cardiovasculars

This therapeutic group of products clearly represents a growth market. Sales increased from Fls. 22 million in 1968 to Fls. 69 million in 1973, though the growth rate is declining. The group is composed of a great number of sub-groups, of which the two most important, coronary and peripheral vasodilators, account for some 60 % of total sales. In the first sub-group, I.C.I. dominates the market with a share of 30 %. In the second, Merck Sharp and Dohme's weight (with its product Aldomet) is still more preponderant. Apart from high absolute concentration, asymmetry between the companies is pronounced. The leading companies and products, nevertheless have some difficulty in keeping their top positions; as the figures below show market shares are fluid, which may to some extent be due to the quick growth of this product market.

Annual sales in million guilders

1968	22
1969	30
1970	38
1971	48
1972	59
1973	69

The constant rise in sales values implies a percentage decline = from 32 % in 1969 to some 17 % in 1973.

Table 3 : Market shares of the 4 leading sellers

Variable : sales

		'69	'70	'71	'72	'73
C	MSD	17	17	17	17	17
D + E	Sandoz	11	10	11	11	12
D	I.C.I.	6	7	8	10	11
D	Hoechst	7	6			
D	Astra Chemie + Pharma			6	7	8
		41	40	42	45	48

C, D and E = p.t.p.

C = Peripheral Vasodilators

D = Coronary Vasodilators

E = Vasodilators (both applications)

In this expanding market both absolute and relative concentration are lower than in other therapeutical markets.

Hoechst came fifth in 1973, its product Synadrin achieved a growth rate of barely two percent, so that a further relative decline is not excluded. Concentration seems to decline, but competition may not be as intense as the figures suggest because of the existence of the various sub-groups.

Market shares of the four and eight leading products

	1969	1970	1971	1972	1973
4 products	53.0	50.2	39.7	37.9	38.7
8 products	77.0	71.1	55.2	52.9	55.0

Table 4 : Linda - coefficients of the cardiovascular market

Variable : sales

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	.61041	5	5	.47484	2	.79327
1970	.63151	7	5	.46885	2	.81830
1971	.48708	7	7	.29690	2	.77290
1972	.46629	7	7	.30726	2	.76807
1973	.47480	7	6	.36649	2	.72458

Equality and the number of participants in this expanding market are relatively high. Although inequality declines, we also see in this market, that the leading firm maintains its dominant position.

The growth of the cardiovasculars is such that it may well soon be the largest therapeutic group in the pharmaceutical industry. Also, whatever scientific breakthroughs will be achieved are likely to occur in this group. Again, the number of customers is still growing as evidenced by the number of prescribed units sold.

2.3. Psychotropics

This product group can be divided into five sub-groups of which two, the neuroleptics and the tranquillizers are by far the most important. Of total sales of Fls. 58.5 million in 1973, these two groups had 82 %. The tranquillizers head the list as can be seen from the table.

Psychotropic pharmaceuticals

	Units	sales (million guilders)
1973	1.703.710	58.5
1972	1.692.520	55.2
1971	1.636.400	50.6
1970	1.480.200	41.0
1969	1.318.800	33.7

Sub-groups

	sales (million guilders)
1. Tranquillizers	35.8
2. Neuroleptics	12.4
3. Anti-depressives	9.6
4. Psychostimulants	0.5
5. Meprobamatics	0.2

Within the tranquillizers sub-group, two products, Valium and Librium, both sold by Hoffmann - La Roche of Basle had a share of 63.3 %. If the product Nobrium, also of H.L.R. with a share of nearly 7 % is added it follows that the Swiss company had a dominating position in terms of market shares in this sub-group. Among the other leading companies were Wyeth (U.S.A.), which markets tranquillizers under the names of Temesta and Seresta, and Ciba - Geigy with Insidon and Tacitin.

Temesta introduced on the market in October 1971, is the quickest growing product: its sales rose 92 % in 1973. Together with Winthrop (U.K.) these four companies had a market share of 95.0 % in 1973. The sub-group of the tranquillizers is not a quick growing one, and H.L.R.'s share is receding. Wyeth's importance is increasing, though it is still way behind the market leader.

Leading products in the tranquillizer market (million Fls.)

	1970	1971	1972	1973
Valium	11.3	14.2	14.1	13.1
Librium	6.6	7.3	7.4	7.7
Nobrium	1.7	2.4	2.5	2.4
Seresta	1.7	2.4	2.8	3.0
Temesta	—	—	1.6	3.1
Seresta Forte	1.0	1.6	2.0	2.1
Insidon	3.6	3.1	2.5	2.4
Diazepam	33.1	34.0	25.5	22.4
	====	====	====	====
Total sub-market	59.0	51.0	55.0	58.5

As to prices, it seems that Temesta is one of the lower priced articles. The table below indicates minimum and maximum daily prices for prescribed dosis as given by the social health fund (in cents).

Valium	0.18 – 0.54
Librium	0.26 – 0.52
Temesta	0.13 – 0.38
Seresta	0.28 – 0.37
Nobrium	0.29 – 0.43
Seresta Forte	0.36 – 0.72
Insidon	0.15 – 0.44

One of the characteristics of librium and valium is its broad spectre application. On the basis of this consideration it might be argued that the relevant market is not tranquillizers but the whole group of psycho-pharmaceuticals. In that case the four most important companies and their shares of the market would be:

Table 5 : Market shares of the four leading sellers

Variable : sales

		'69	'70	'71	'72	'73
C	Hoffmann-La Roche	50	48	47	42	40
C	Wyeth	5	7	8	11	14
C+D	Ciba - Geigy	6	5	6	5	5
D	MSD	5	6	6	5	5
	CR 4	66	66	67	63	64

C = Tranquillizers

D = Anti - depressives

Even then, both absolute and relative concentration are strong in this product market, and, even though Roche's share is declining (from 49.6 % in 1969, to 42.4 % in 1972 and less than 40 % in 1973), the shifts take place between the market leaders Roche and Wyeth. Wyeth's sales trebled between 1970 and 1973 to Fls. 8.2 million in the latter year.

Table 6 : Linda coefficients of the market for psychotropics

Variable : sales

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	2.73567	5	4	1.58701	2	4.17079
1970	2.44610	6	4	1.45094	2	3.71538
1971	1.64669	6	6	1.14595	2	2.84767
1972	1.40524	6	6	1.11785	2	1.88855
1973	1.30897	6	5	1.08829	3	1.56674

Assymetry, as indicated by the L_s - figures, decreases from 2.7 in 1969 to 1.3 in 1973.

Hoffmann - La Roche had to give up part of its position during the period, as the development of the LN^*_h -figures show.

2.4. Anti - rheumatics

This therapeutic group of products consists of a number of sub-groups of which the largests account for 80 % of sales. Sales have risen from Fls. 15 million in 1968 to Fls. 40 million in 1973. Since 1970 the rate of increase slows down however. This product market is rather concentrated. MSD with its product Indocid had 55 % of market sales in 1971, a share which declined slightly in the ensuing years.

Table 7 : Total sales and concentration figures

Variable : sales

Total sales	18.2	24.8	30.4	35.2	40.0
	'69	'70	'71	'72	'73
MSD	53	54	55	51	48
Boots		3	6	11	16
Geigy	20	18	16	14	12
Midy	6	5	5	4	4
Byk	5				
CR 4	84	80	82	80	80

Absolute concentration is high and stabilizing during the period. Market-fluidity is considerable, except for the leading company.
The rise of Boots, marketing Brufen, was spectacular. In 1970 Brufen had a market share of 2.9 %, but it has ousted Geigy's products from the second place and it is also cheaper then MSD's Indocid (sales in 1973: Fls. 20 million; it is the leading pharmaceutical in Holland). Whereas the latter product costs Fls. 1.38 - 2.34 per daily dosis, Brufen costs only Fls. 0.68. These products together account for 70 % of sales in the largest sub-group. This strong position may to a large extent be due to the fact that the social health fund has refused to prescribe 5 of the other products in this sub-group. Consequently, the market shares of the four resp. eight leading products are rather stable:

	1969	1970	1971	1972	1973
4 products	73.1	75.5	75.7	75.7	76.1
8 products	85.5	87.3	88.0	85.9	84.7

Table 8 : Linda coefficients of the market for anti-rheumatics

Variable : sales

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h	N^*_h	LN^*_h
1969	1.31848	4	2	1.31848	2	1.31848	3	1.79769
1970	1.48339	5	2	1.48339	2	1.48339	3	1.90155
1971	1.62381	5	5	1.34293	3	1.82935	3	1.82935
1972	1.51202	5	3	1.17637	2	1.84767	2	1.84767
1973	1.24945	5	3	.99399	2	1.50490	2	1.50490

L_s-figures move upward till 1972, but from then on they fall below the 1969-level of 1.3. The number of oligopolists increases, but MSD maintains its rather pronounced dominant position.
A feature of this therapeutic group is the presence of cheap generic substitute products for the mark names especially those of Byk and Geigy. Tomanal (Byk) costs Fls. 1.68 per 10 tablets, whereas the nameless but chemically identical substitute costs Fls. 0.43. In the case of Geigy' s Butazolidin the comparison is Fls. 1.82 per 10 pieces, against the chemically identical fenylbutazon, costing Fls. 0.81. The competition of such substitutes is not responsible for the decline in relative position of both the marketing companies, however.

2.5. Dermatologicals

A large therapeutic group with sharply rising sales between 1968 and 1973: 250 %, from Fls. 14 to 34 million. The growth rate subsided sharply, however, from 25 % between 1969 and 1970, via 20 % in succeeding years to 13 % at the end of the period. There are about ten sub-sectors. The most important are the corticosteroides, accounting for a share of some 40 % of total group sales.

Others are antimycotics and corticoides. The shares of the main product and sellers are as follows:

	1969	1970	1971	1972	1973
4 main products	34.8	34.6	32.8	32.0	30.0
8 main products	50.8	53.6	50.5	47.4	44.6

Both shares show a tendency to decline, mainly based upon the relative setbacks of the products of the third and fourth producers: Labaz - Lederle and I.C.I..

Table 9 : Market shares of the 4 leading sellers

Variable : sales

Total sales		17.4	21.8	25.8	29.2	34.3
		'69	'70	'71	'72	'73
F+I	Schering	19	19	19	19	18
I	Ciba	11	11	11	10	12
F	Labaz-Lederle	10	11	11	9	7
F	Glaxo	3	4	4	4	5
	CR 4	43	45	45	42	42

F = Corticosteroides

I = Antiseptics, Desinfectants

Relative and absolute concentration are less than in other therapeutical groups. The dermatologicals are one of the few groups where the leading 4 producers have a combined market share of less than 50 %.

Table 10 :

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h	N^*_h	LN^*_h
1969	.63328	6	6	.52284	2	.87041	2	.87041
1970	.70397	6	3	.52967	2	.87827	2	.87827
1971	.68755	6	3	.51849	2	.85660	6	.90390
1972	.65638	7	6	.57295	2	.90698	7	1.03557
1973	.62440	6	6	.55272	2	.74386	2	.74386

Inequality is moderate, according to the Linda-figures. The number of participants in the oligopolistic field falls till 3, but increases again to 6 in 1973. Schering keeps its dominant position upright till 1973, when it experiences a small fall-back.

For several products in this group, there exist similar products (having the same or nearly the same effects) sold at lower prices. Some examples:

Celestoderm V crème	15 grammes	Fls.	7.67
Triamcinolon acetonide crème	15 grammes		3.20 - 3.10
Ultralan crème	10 grammes		3.76
Triamcinolon acetonide crème	10 grammes		2.16

Both the branded products mentioned are sold by Schering and have a joint market share of 18 %.

Ciba markets Locacurten, for which a close substitute seems to exist, as far as therapeutic value is concerned, even though this exchangeability is not generally accepted.

Locacurten crème	15 grammes	Fls.	5.46
Triamcinolon acetonide	15 grammes		3.02

Finally, Glaxo's Betnalan seems to be substitutable by the same Triamcinolon, though prices diverge between Fls. 8.03 and Fls. 3.21 both for standard portions of 15 grammes.

2.6 Gynaecologicals

This group comprises the oral anticonceptives, which are to be considered as a separate relevant market. The anticonceptives account for more than 80 % of the total. Sales increased three and a half-fold between 1968 and 1973 though the growth rate constantly declined. Total sales were Fls. 30 million in the latter year, as compared with Fls. 25 million in 1972.

	1969	1970	1971	1972	1973
4 leading products	71.5	71.1	64.3	69.0	66.9
8 leading products	84.5	83.6	81.6	83.0	79.9

But the shares of leading producers have shifted importantly, even though Organon - a subsidiary of AKZO - has remained the leading firm with its main product Lyndiol. The degree of concentration of the four leading producers has indeed remained on the same level, but market fluidity is fairly pronounced.

Table 11 : Market shares of the 4 leading sellers

Variable : sales

	'69	'70	'71	'72	'73
Sales (x ƒ 1 mln)	10.8	14.0	18.0	24.9	29.5
Market shares of the 4 leading sellers:					
Organon	52	46	4	25	34
Schering	19	19	20	22	22
Wyeth	4	7	7	15	20
Noury Pharma		4	4	4	5
Novo	3				
	78	76	35	66	81

The sub-group therefore shows a tendency to adopt a symmetrical oligopolistic character, instead of an asymmetrical one. The same picture is given by the Linda-figures.

Table 12 : Linda coefficients of the market for gynaecologicals

Variable : sales

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h	N^*_h	LN^*_h
1969	1.36995	6	2	1.36995	2	1.36995	3	2.10689
1970	1.29489	6	5	1.19210	3	1.39008	6	2.45795
1971	.79058	5	5	.52994	2	1.08333	2	1.08333
1972	.52726	5	3	.48634	2	.56818	5	.76375
1973	.63168	5	3	.50209	2	.76126	5	.90204

2.7 Diuretics

This is a middle-sized, growing product market without sub-groups. Sales increased from Fls. 9 million in 1968 to Fls. 25 million in 1973. Concentration both in leading products and leading companies is very pronounced as the tables show.

Market shares of the leading products

	1969	1970	1971	1972	1973
4 main products	73.3	76.8	78.2	76.0	74.9
8 main products	88.5	90.9	90.8	90.0	89.9

Table 13 : Total sales and market shares of the 4 leading sellers

	'69	'70	'71	'72	'73
Total sales (x ƒ 1 mln)	11.3	13.2	17.4	21.6	25.2
Hoechst	41	37	39	37	35
RIT	15	18	20	18	20
Ciba - Geigy	17	15	14	15	16
Searle	8	11	10	8	8
CR 4	81	81	83	78	79

The main positions are taken up by companies which are not dominant ones in other product markets. Relative concentration shows a tendency to decline. The merger between Ciba and Geigy does not seem to have helped the company to achieve an increase in relative position. One of the smaller companies in this group is MSD which is trying to establish a stronger position by means of its article Moduretic. This product replaces Dicholride, introduced in 1958, the sales of which receded in recent years slowly but constantly. Hoechst, the market leader had to relinquish a share of some 6 % in favour of RIT.

Table 14 : Linda coefficients of the diuretics market

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	.88222	4	4	.72295	2	1.17059
1970	.76517	4	4	.57472	2	1.04191
1971	.77999	5	4	.62061	2	.97958
1972	.85315	5	3	.67298	2	1.03331
1973	.73284	5	3	.59823	2	.36746

The L_s-figures show, that relative concentration declines something. The oligopolistic arena as indicated by N^*_m diminishes with one firm in 1972. The position of Hoechst declines, but the firm remains dominant during the period.

2.8. Antidiabetics

The product group of the antidiabetics has two sub-groups, viz., insulins and oral diabetics, responsible for respectively about one-third and two-thirds of total sales. Product group sales doubled between 1968 and 1973, from Fls. 10 million, to Fls. 21 million, but the growth rate receded sharply in the last two years.

Market shares of the leading products

	1969	1970	1971	1972	1973
4 main products	76.4	68.3	61.6	63.3	67.0
8 main products	94.0	89.3	88.2	88.4	89.6

The sharp decline in market share of the four leading products between 1970-1971, and the subsequent reaction in following years can be explained as follows:

Hoechst was the leading firm in 1969 with a market share of 33.5 %. It was in the same position in 1973, and accounted for 36.8 % of total product group sales in 1973. However, Hoechst's market position in 1969 was wholly based upon Rastinon. This product had a sharp setback during the whole period: in 1971 it had 20 % of market sales and in 1973 absolute sales in guilders even declined. In 1971 Hoechst introduced the succesful article Daonil, of which sales rose by 31.3 % in subsequent years, but naturally from a low level. As the product group as a whole increased its sales only very modestly, the Hoechst share rose again.

Table 15 : Total sales and market shares of the 4 leading firms

		'69	'70	'71	'72	'73
Total sales (x ƒ 1 mln)		12.3	13.5	16.3	19.2	20.7
B	Hoechst	34	34	34	36	37
A	Novo	18	17	18	20	21
A	Organon	12	11	10	9	9
B	Boehringer	13	12	9		
B	Winthrop				8	7
	CR 4	77	74	71	73	74

A = Insulins

B = Oral diabetics

Thus, both absolute and relative concentration are high and concentration for the two leading companies shows a rising tendency. This conclusion is reinforced by the consideration that Novo and Hoechst are the leading companies in the aforementioned respective sub-markets of insulins and oral diabetics.

Table 16 : Linda coefficients of the antidiabetics market

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	.71624	6	4	.51401	2	.95615
1970	.69032	6	5	.47780	2	.99129
1971	.69453	6	6	.49812	2	.96200
1972	.73336	6	6	.52883	3	.91062
1973	.79030	6	6	.57700	3	.95721

According to the Linda-coefficients, assymetry is not very high, but increases to the end of the period. The number of oligopolists is enlarged from 4 till 6 in 1973, but the dominant position of the first firm stays unaffected.

2.9. Hormones

This product market exhibits an a-typical pattern. Total sales more than doubled between 1968 and 1973, to Fls. 19 million in the latter year. The growth rate is stable at between 15 and 20 % per annum. The concentration ratios have very low values - in fact the lowest of all product groups discussed. But this may be misleading. There are a relatively large number of sub-groups of which the substitutabilities are probably not large. For example, Synapause, used to cure the Oestrogene-deficiency syndrome may have little to do with the other articles in the group. Such diverse products as corticosteroides, destrogenes and progestatives are grouped together here, so that real market concentration may well be higher than is to be seen from the figures.

Market shares of the leading products

	1969	1970	1971	1972	1973
4 main products	28.0	25.1	23.5	21.4	22.3
8 main products	44.5	41.5	39.3	36.6	38.6

The shares of the leading products decline, except for the final years 1972/73. This may be a reflection of Ayerst's introduction of Premarin on the market, which only in 1972 acquired some importance.

Table 17 : Concentration figures

Variable : sales

	'69	'70	'71	'72	'73
Sales (x *f* 1 mln)	10.5	12.5	14.2	16.3	19.2
Market shares of the 4 leading firms					
Organon	19	19	19	19	19
Philips - Duphar	7	7	7	7	8
Schering	8	7	6	7	7
Ayerst				4	5
Lederle	6	6	5		
CR 4	40	39	37	37	39

Lederle disappeared completely among the 4 leading companies and was replaced by Ayerst. The decline of Ledercort (Lederle's main product) may be due to its relatively high price:

Ledercort crème	per 15 grammes		Fls.	12.58
Triamcinolon acetonide	per 15 grammes		Fls.	3.02
Ledercort tablets	per 4 milligrammes	10 pieces	Fls.	7.78
Triamcinolon tablets		10 pieces	Fls.	7.24
Ledercort D crème	per 30 grammes		Fls.	7.48
Triamcinolon acetonide	per 30 grammes		Fls.	1.04

In the three cases cited the products are chemically identical. The 700 % price difference in the last case is one of the most significant on the Dutch pharmaceutical market.

Table 18 : Linda coefficients of the hormones market

Variable : sales

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	.84968	4	4	.55566	2	1.23058
1970	.85694	4	4	.56122	2	1.25027
1971	.81133	5	5	.54413	2	1.29207
1972	.85152	5	5	.54384	2	1.39560
1973	.77410	5	5	.59987	2	1.14823

The L_s-figures show a rather high but decreasing level of inequality. Organon maintains its rather pronounced dominant position all through the period.

2.10. Sedatives and Hypnotics

The products belonging to this group are the soporifics. It is not a large group: sales were Fls. 16 million in 1973 or 250 % more than in 1968. The whole growth in sales is probably due to Hoffmann-La Roche's Mogadon, which doubled its market share in the period considered.

Market shares of the leading products

	1969	1970	1971	1972	1973
4 main products	53.6	55.9	61.0	62.8	63.1
8 main products	64.8	71.0	74.1	75.7	76.3

Table 19: Sales and Concentration figures

Variable : sales

	'60	'70	'71	'72	'73
Sales (x ƒ 1 mln)	8.4	10.0	11.8	13.7	15.9
Market shares of the 4 leading companies					
Hoffmann - La Roche	24	28	36	39	45
Union Chimique Belge	15	14	12	10	9
Kalichemie	8	8	9	8	9
Ciba	7	4	3	3	2
CR4	54	54	60	60	65

Thus, both absolute and relative concentration increased, the latter mainly because of H.L.R.'s rise in market share and Union Chimique Belge's decline.

Table 20 : Linda coefficients of the market for sedatives and hypnotics

Variable : sales

Year	L_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	.74023	4	4	.64284	3	.79230
1970	.94212	4	3	.85504	2	1.02920
1971	1.25154	4	3	1.02808	2	1.47500
1972	1.52806	4	3	1.18139	2	1.87474
1973	1.95160	4	3	1.39201	2	2.51118

Inequality increases at a very fast rate, as is indicated by the Linda-figures. The oligopolistic arena is narrowed and Hoffmann - La Roche is developing to a position of dominance, which is unparalleled.

Mogadon is the most expensive article in this group and yet increased its share. Price differences in the group are generally large.

For the opiatic types, such as Phanadorm, Amytal, Nembutal, Seconal Sodium, Sodium Amytal and Union Nox, there are identical substitutes at lower prices. For example, Nembutal priced at 0.06 - 0.19 cents per daily dosis may be replaced by Pentobarbital, priced at 0.01 - 0.04 per daily dosis.

Similarly, for soporifics like U.C.B.'s Vesparax costing Fls. 2.31 per 10 tablets may be replaced by Brallobarbital, priced at Fls. 1.54 per 10 tablets. For several of the above mentioned products it is advised by the social health fund not to prescribe them.

2.11. Spasmolytics

Sales trebbled during the five years 1968 - 1973 to Fls. 15 million, but the rate of growth is declining. In the sub-group of anti-Parkinson drugs, the Dutch firm of Brocades has the leading position. Philips-Duphar markets Puspatal, a product which is not prescribed, probably because of its high price. It's market share nevertheless increased from 6.2 % to 11.6 %.

Market shares of leading products

	1969	1970	1971	1972	1973
4 main products	58.5	54.7	47.7	46.0	43.3
8 main products	78.6	75.3	71.6	68.1	63.3

Table 21 : Concentration figures

Variable : sales

	'69	'70	'71	'72	'73
Sales (x ƒ 1 mln)	5.9	8.4	11.1	13.6	15.4
Market shares of the 4 leading companies					
Brocades	24	21	16	15	20
Hoffmann - La Roche	16	14	14	12	16
Philips - Duphar	6	7	8	12	12
Boehringer	17	15	12	11	10
CR 4	63	57	50	50	58

Table 22 : Linda coefficients of the spasmolytics market

Variable : sales

Year	N_s	N^*	N^*_m	LN^*_m	N^*_h	LN^*_h
1969	.59242	4	3	.45289	2	.73187
1970	.57551	4	3	.44654	2	.70447
1971	.46615	4	4	.39204	2	.59239
1972	.44423	4	4	.31187	2	.62500
1973	.50578	4	4	.40717	2	.61567

Both absolute and relative concentration are declining. The positional changes are at the cost of Boehringer, which ranked second in 1969, but fourth in 1973. However, the leading four producers still account for more than 50 % of sales.

According to the Linda-figures assymetry is moderate and declining all trough the period. The oligopolistic field grows from 3 till 4 firms, but Brocades stays dominant, although its position declines.

2.12. Conclusion

A fairly general pattern emerges from this survey of the main pharmaceutical product markets in the Netherlands. First, growth has been impressive in all therapeutic groups; no product market shows a smaller increase than a doubling of sales within five years. Several branches even achieved a trebling of their size. Rates of growth nevertheless decreased, sometimes sharply, as time progressed in all except one product market.

Second, concentration, both for the leading products and for the four leading companies decreased in a majority of product markets: for the main products this was the case in 8 out of eleven markets, for the main companies this occurred in 9 out of 11 markets.

Third, the level of concentration is very high in all product markets, except three, notwithstanding the decline which took place. In all but three markets, the leading four producers have over 50 % of sales in 1973; in 5 out of 11 branches they have over 67 % of sales. Moreover, - such ratios probably underrate the real degree of concentration because of the numerous sub-sectors in the product markets, where the leading companies have a very dominant position.

Fourth, market fluidity was measured for all the therapeutic markets concerned as the shifts in rank-order position of the leading 4 firms in comparison with the number of possible shifts. This exercise was done for 1969 - 1973. Thus, if all firms shifted their positions in rank-order completely in 1973, in comparison with 1969 the index would be a hundred. In fact the calculated index was 13, which indicates low market fluidity. Sometimes, numbers two, three and four in 1969 had changed positions in 1973 or were no longer among the leading four producers. However, in no case was the number one firm of 1969 ousted from its first position in 1973. Together with what was remarked under third, and the generally present asymetry of size relationships among the leading four companies, this points to the conclusion that the companies ranked as number one in each

of the product markets have strongly based power positions.
Four of the eleven therapeutical markets have a second Linda-maximum, which is higher than the first maximum. This indicates, that there is an even greater level of inequality in the second echelon of the oligopoly. Especially for the market of antibiotics this is very clear.
Competition seems to take place more between the rest of the companies within the groups than between these companies and the market dominating ones.
Fifth, this conclusion is reinforced if we lookat the price discrepancies which often occur between the main brands (of the number one companies) and other branded or generic products having the same therapeutic effect. Price differences of tens of percents or higher in this respect are not at all uncommon. They seem to be a reflection of the exploitation of the market dominating positions taken up by the companies, ranking first in their separate product markets or sub-markets.

3. Price Formation and Price Developments

There are three main groups in the pharmaceutical markets : prescribed specialities, proprietary drugs and bulk materials. The distinction is important because price formation is dependent on a number of factors which have a different character according to the group concerned. The factors relate to both the demand and the supply sides of the market.

A. On the demand side, the relationship between purchase decision, payment and consumption of the drug is what matters. In the group of ethical drugs, the three acts are separated because different persons or institutions are involved. The decision to prescribe is taken by the doctor, whereas payment is effected for 70 % of the population by the Social Health Fund and for 30 % by private persons, often compensated by private insurance firms.
Proprietary drugs and pharmaceutical bulk materials are mostly bought and paid by private persons or firms.

B. On the supply side, the market shows a tight oligopolistic structure, with a high degree of concentration for many sub-markets (part 2).

Competition and price policies of pharmaceutical firms are geared to these demand and supply considerations. Competition takes place by means of product differentiation, sales promotion and (sometimes) innovation but hardly through price cutting. This is a consequence of the very low degree of price elasticity of demand for drugs, which differs for the sectors mentioned, but is low in comparison with other markets. For ethical drugs elasticity is lowest, for bulk materials highest.
The causes of low price elasticity with respect to demand and the differences between the sectors are:

1. The prescribing doctor need not pay, and often the consumer also opts out because he is insured.
For bulk goods, the purchasing firms pay the bill but demand is derived from the final product sales.

2. The prescribing doctor is usually badly informed about prices, also because of the way industry advertises its goods. Prices are hardly mentioned. The fact that 70 to 90 % of total sales promotion costs are directed towards the doctor indicates that industry plays on the small price consciousness of physicans. In proprietary drugs price consciousness of consumers is stronger, but the limited and difficult to compare information about quality and price make themselves felt. In bulk goods, industry is usually keen on prices and market circumstances.

3. Ethical drugs are often patented and nearly always have brand names. Both doctor and consumer are sensitive to these names : they associate them with quality, reliability and they can be kept in mind, in contrast to the generic names. Also, the constant advertisements hammer in preferences.

Patented products are introduced at prices which charge what the traffic can bear, and R and D costs are recuperated as fast as possible. If the patent life expires, the price is often kept high, because the brand name has gained currency, so that available, lower priced substitutes acquire only small market shares. Sometimes, a price decline is brought about in order to ward off a potential competitor with a promising brand.
As a result, ethical drug prices are stable and price competition is eshewed. Figure 1 gives indices of prices of prescribed drugs for an unchanged basket of goods since 1964, as well as proprietary drug prices and those for bulk materials. Price increases are effected for new drugs, which may or may not be equivalent to existing drugs.
It may be seen from some examples given in table 1 that appreciable price increases are achieved for products which are only slightly differentiated from those previously sold on the market by the same or an alternative producer.
A producer figures out the price of a new brand such that it is above the best classed alternative brand name. The good is then strongly promoted, while promotionary activity for the old brand is stopped entirely. If the producer has a strong market position, the new brand gains good acceptance with doctors, and an alternative is not within sight, prices can become a

Figure 1

Indexfigures of the course of producer prices (ex -factory) of pharmaceutical products, based on the same basket of products.
Source: CBS, department of prices

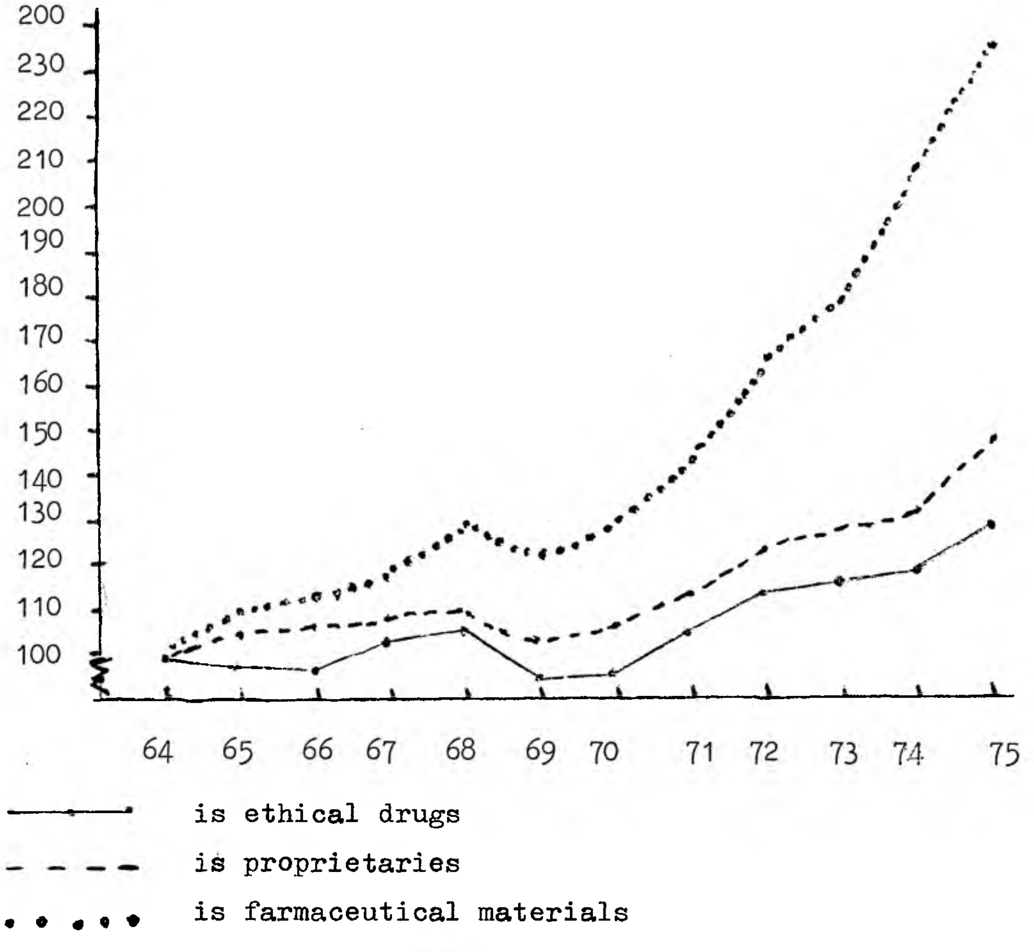


Table 1 : Price increases at the introduction of "new" products

Therapeutic market : Psychotropics

Sub - market : Antidepressives

Name of product	Producer	Social Health Fund prices (in D.Fl.)	Year of introduction
Toframil	Ciba - Geigy	0.43 (10 pieces)	1958
Anafronil	Ciba - Geigy	1.83 (10 pieces)	1970
Ludiomil	Ciba - Geigy	4.65 (10 pieces)	1975

Therapeutic market : Anti-biotics

Sub - market : Penicillins and derivates

Name of product	Producer	Social Health Fund price (in D.Fl.)	Year of introduction
Amfipen	Mycofarm	9.94 (10 pieces)	1969
Clamoxil	Beecham	11.41 (10 pieces)	1973

Therapeutic market : Hormones

Sub - market : Oestrogenes

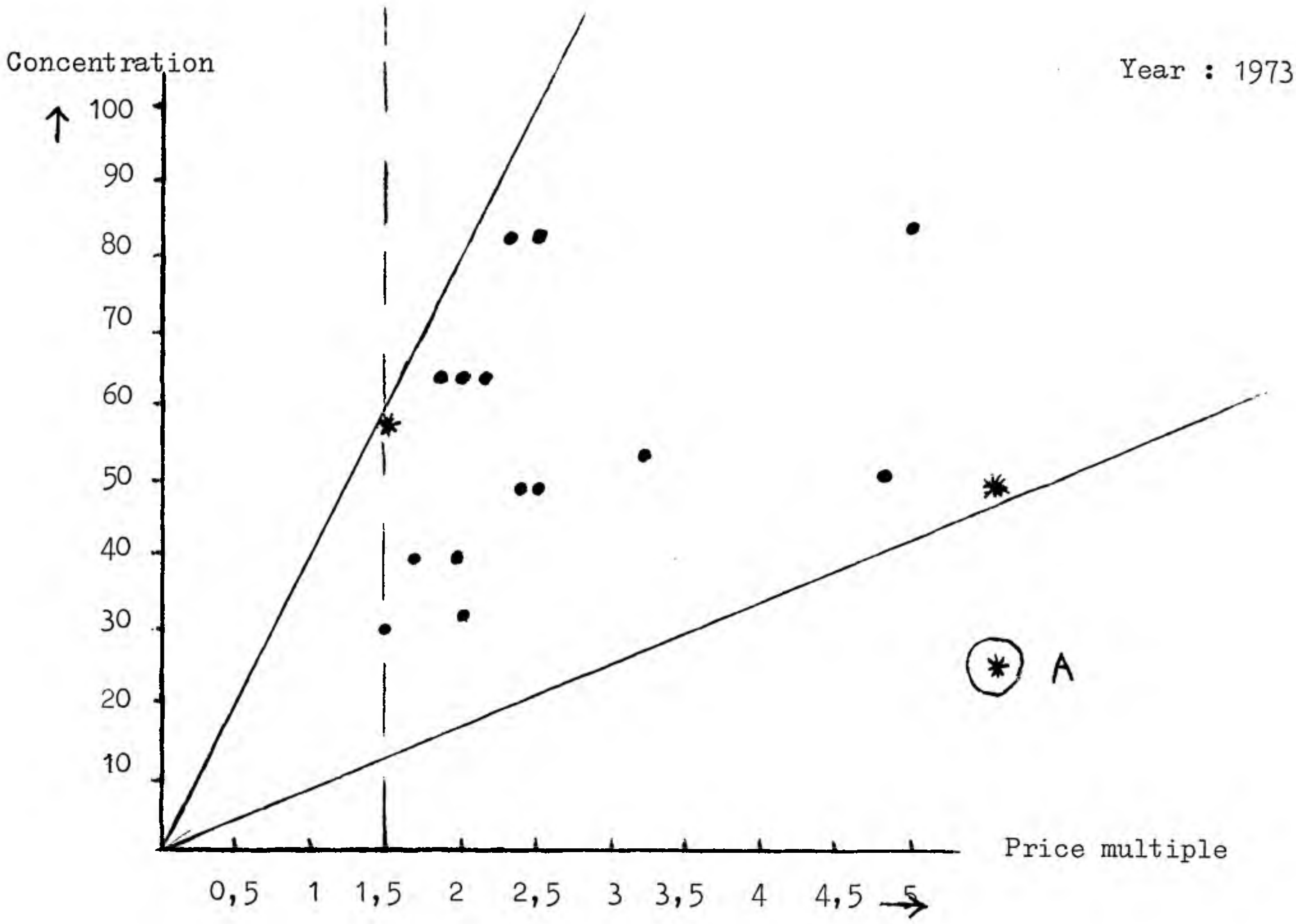
Name of product	Producer	Social Health Fund price (in D.Fl.)	Year of introduction
Lynoral	Akzo - Pharma	1.00 (30 tablets)	1948
Synapause	Akzo - Pharma	8.50 (30 tablets)	1971

Note : There is a small qualitative advantage for Synapause.

multiple of the prices for generic (and therapeutically equivalent) drugs or in comparison with cheaper brands.

Figure 2 gives an indication of such multiples, which exhibit some relationship with the degree of concentration in the sub-markets. For eight out of the eleven therapeutic markets, distinguished in part 2, the price multiples of branded products in comparison with generic products have been related to the degree of concentration of the leading producers (the seventeen points relate to ten different sub-markets of these therapeutic markets , so that sometimes two or three branded products were compared if this was possible). It follows that there is an imperfect relationship between concentration and price multiple. Part of the imperfection seems due to the fact that the branded products have been introduced at different times, so that for an old product the price multiple is relatively low given the degree of concentration. Therefore the two straight lines from the origin have been drawn, indicating the area in which such factors play a role. The vertically drawn intermittent line indicates that no branded product had a price multiple of less than 1.5 .

Figure 2 THE RELATIONSHIP BETWEEN CONCENTRATION AND PRICES *



A. is a newly introduced brand-product with a sales volume, which grew till over 1 mio. Dutch florins in 2 years.

* Every point represents a double aspect: the concentration ratio and the price multiple. The concentration ratio is composed of the sum of the market shares of the (1. 2 or 3) leading products in a given sub-market (of a therapeutical market). The price multiple is the number of times the price of a leading product, mentioned above, is the price of a loco-product (except for the cases indicated by asterisks, which mark the price multiple in relation to the cheapest brand-product).

4. The main companies

ACF HOLDING N.V.
AMSTERDAM

4.1. Pharmaceutical products comprised 32 % of ACF's total sales in 1973 and contributed 48 % to operating results.
Besides pharmaceutical products sales consisted of trade and joint ventures and dressings and bandages.
In 1973 sales of pharmaceutical products amounted to 77 mio Fls. Specialities took 9 mio and bulk products 68 mio Fls.

Estimate of gross profit margins* per product group

	1970	1971	1972	1973
bulk products	—	13.2 %	9.2 %	9.4 %
pharmaceutical specialities	—	47.6 %	42.9 %	40.0 %
dressings and bandages	—	6.0 %	2.2 %	3.2 %
trade and joint ventures	2 %	2.5 %	3.2 %	3.5 %

*) i.e. operative result as a % of sales

4.1.1. Main pharmaceutical products

A. Bulk products

a. cinchona products

ACF and Boehringer - Mannheim are the biggest cinchona producers in the world. ACF has plantations in Zaïre, Rwanda and Guetamala. ACF has an agreement with Indonesia regarding the marketing of cinchona produced in Indonesia.

a.1 Quinine : ACF's share in worldmarket sales of this product is about 40 %.

a.2 Quinidine: a cardiovascular product, of which ACF is also the leading seller.

b. products from organic synthesis

b.1 Sulfonamides: in 1972 prices were low, hence the decline in the operating result. In 1973 they could be raised to some extent. ACF is the third biggest producer of sulfonamides in the world.

B. Specialities

The company sells different products with brand names such as aceplex, cardioquin, cinniprine, cranimal, inhibin, palfadonna, femerital, prolixan, seranase.

ACF trading activities involve chiefly agencies for cosmetics, Nina Ricci perfumes, Fenjal bathing products, Shick shaving articles and Dr. Drabble products.

Joint ventures:

- Brocacef, a pharmaceutical wholesale trading company with Gist-Brocades N.V.. Both companies have a fifty percent share. In 1973 sales were more than *f*. 250 mln. The number of employees was 1.000 and the market share in Dutch pharmaceutical wholesaling was some 50 %.

- Bipharma, a company jointly owned with Gist-Brocades, trading imported specialities.

Royalties are received from a number of companies marketing abroad under licence agreement the medicines developed by ACF. The income from royalties has continued to grow in the course of the years as may be seen from the table below.

<u>ACF financial research balance 1969 - 1974</u>

(x *f* 1 mln.)

	1969	1970	1971	1972	1973	1974
Royalties	4.76	5.96	6.61	7.89	8.18	8.52
Research expenditure	1.99	2.30	2.87	3.44	3.76	4.31
	====	====	====	====	====	====
Net balance	2.77	3.66	3.74	4.45	4.42	4.21

AKZO - PHARMA

4.2. Akzo - Pharma is the pharmaceutical division of Akzo N.V. and this division takes a 7 percent of the Akzo sales. The contribution to the total operating result is more than 10 percent.
The main company of the division is Organon, the next important one Chefaro.
The sales of the Human pharmaceutical sector is 75 % of total sales of the division.

4.2.1. Product groups

a. Organon International B.V.
Ethical drugs (see 4.2.2.)
b. Chefaro International B.V.
non-prescription drugs (see 4.2.2.)
c. Organon Technika International B.V.
Hospital supplies, as infusion liquids, blood fractions, diagnostics and medical equipments.
Acquisitions in this sector: Proviet producten N.V. and Aerojet medical and biological systems.
d. Diosynth B.V.
Pharmaceutical raw materials, for captive and commercial use.
The "Verenigde Pharmaceutische Fabrieken", a part of the Diosynth group is the only alkaloids producer in the Netherlands.
e. Intervet International B.V.
A producer of veterinary products
f. Aagrunol
Fyto - pharmaceuticals

4.2.2. Main pharmaceutical products

a. Ethical drugs
a1 Hormone preparations
- oral contraceptives, Akzo has a leading position in this market with lyndiol

- anabolics (steriod preparations). Akzo-Pharma has a market share of 40 percent.

b. Bulk products (Diosynth)
The emphasis is on the development of synthetic alkaloids.

c. Non-prescription drugs (Chefaro)

- tonics
- vitamins (davitamon)
- pain-killers
- sweeteners (sucrosa)
- cough products

4.2.3. Research activities

Expenses: approx 8 % of total sales.

BEECHAM NEDERLAND N.V.

4.3. This is a sales-subsidiary of the Beecham Company in the U.K. with offices in Amsterdam and The Hague.
This subsidiary was founded in 1969.
Beecham Nederland sells pharmaceutical specialities, especially anti-biotics (brands: Clamoxyl, Pen Britin).
In this therapeutical market the firm occupies the first place.
The subsidiary is also active in the fields of vitamins and allergic care-liquids.
Beecham Nederland employed 210 men in 1972.

CIBA - GEIGY NEDERLAND

4.4. This subsidiary of the Swiss Ciba-Geigy company is nowadays established in Arnhem.
Before the merger between Ciba and Geigy in 1970 both companies had their own Dutch subsidiaries.

The Ciba subsidiary was founded in 1953 in Arnhem, that of Geigy was founded in 1950 in Enschede.
According to the "Financieel Dagblad" review of 13 September 1973, total sales of the subsidiary grew from 47 mio Fls. in 1971 to 72 mio Fls. in 1972.
The number of employees increased from 187 in 1971 to 215 in 1972.
The subsidiary sells pharmaceutical specialities on the following therapeutic markets: anti-rheumatics, dermatologicals, diuretics and sedatives and hypnotics.

GIST BROCADES N.V. - HAARLEM

4.5. The contribution of the pharmaceutical bulk products and specialities to total sales is about 45 percent.
The contribution to the operating result is about 60 percent.
Total sales in 1973 (including abroad) were 630 mln., a sharp increase over 1972 (sales 543 mln. fls).

4.5.1. Product groups

a. Industrial products
- antibiotics (see 4.5.2. a)
- enzymes : Gist Brocades is the second producer in this market in the world.
- substances : for foodstuffs and animal feed
- steroids : basic products for hormones a.o. the production is for third parties (Akzo for instance)
- veterinary products

b. Pharmaceuticals
(see 4.5.2. b)

c. Yeast : Gist Brocades has a monopoly in the Netherlands and has the largest production in Europe. Share of the world-market is 12 percent.

d. Other

d1 Wholesale

- Brocacef, A Pharmaceutical wholesale trade with ACF (50 percent)
  Sales in 1973 : 250 mln.
  Number of employees : 1.000
  Share of the market : 50 percent
- Bipharma, joint venture with ACF, import trade of pharmaceutical specialities.

4.5.2. Main Pharmaceutical Products

a. Antibiotics

- the company's share in the world production of organic penicillin is about 15 percent.
- other antibiotics: streptomicine and chloram-phenicol
- semi-synthetic penicillins
  This group is responsible for over 60 percent of the total penicillin production, the growth rate is 10-15 percent.
  Some products are: amino penicillonic acid (6-apa) and 7 aminodesacetoxy cephalosporanic acid (7-adca), intermediaries for semi-synthetic penicillins, or cephalosporines respectively.
  The antibiotics sector showed a decline in 1971, due to overcapacity, prices went down, a reorganization of the penicillin-sector took place.

  In 1973 there was a heavy demand and sales and profits increased significantly. This trend continued in 1974.

b. Pharmaceutical specialities

Some products are:

Amfipen	- A semi-synthetic penicillin
Eldopal	- A product against the disease of Parkinson
Locoid	- A dermatological

The most important products are the antibiotics.

c. O.C.T. drugs

Mainly vitamins and anodynes.

4.5.3. Other information

in million Fls.

	1966	1967	1968	1969	1970	1971	1972	1973	1974
Royalties	2.6	3.1	4.1	6.7	7.3	5.0	4.7	4.8	5.5
Research expenditure	15.5	17	19	22	24	25	27	25.5	30

Research expenditure are 5 percent of total sales, and 12 percent of the sales of pharmaceutical products.

HOFFMANN - LA ROCHE

4.6. This is a sales subsidiary of Hoffmann - La Roche & Co. A.G., Basle, Switzerland.

Most products of the company are manufactured in Grenzach (W. Germany).

The subsidiary was founded in 1967 in Rotterdam and moved to Mijdrecht in 1968.

Hoffmann - La Roche is the main seller of pharmaceutical specialities on the Dutch market.

Total sales amounted to approx 49 mio Fla. in 1972. H.L.R. exhibits its main activities on the markets for psychotropics and sedatives and hypnotics.

Its main brands are Valium, Librium, Nobrium and Mogadon. These brands together accounted for some two-thirds of total sales of H.L.R. in 1972.

MERCK, SHARP & DOHME (MSD)

HAARLEM

4.7. MSD Holland is a subsidiary of the company with the same name, with headquarters in New Jersey (USA). Total world sales were Fls. 3 billion in 1972, of which 90 percent in pharmaceuticals.

MSD is the largest producer in the Netherlands of pharmaceutical products. It has, after Hoffmann-La Roche, a leading position with respect to sales on the Dutch market.

The subsidiary's sales expanded from 169 mio Fls. in 1971 to 196 mio Fls. in 1972. The number of men employed stayed constant at 500.

Most important product: Indocid with sales of 19 million. The subsidiary is not involved in research.

The company imports raw materials and semi manufactured products and exports finished products.

The subsidiary is the European headquarters of the company.

PHILIPS DUPHAR

4.8. Philips Duphar is part of the pharmaceutical-chemical products' division of the "N.V. Philips Gloeilampenfabrieken".
In 1974 sales of the division were above a billion Fls. (4% of total Philips' sales). Philips Duphar has a share of approx. 40 percent in the divisions sales. The pharmaceutical (Human Health) sector is responsible for a 60 percent (of the 40 % of 1 billion).

4.8.1. Product groups

a. Human Health Sector
The sales showed a spectacular increase until 1973, there after the increase slowed down. (see also 4.8.2.)

b. Fyto-pharmaceuticals (crop-protection)
This sector didn't do well. After reorganization in 1972, the sales showed an increase in 1972 and 1973 and a sharp growth in 1974.

c. Fine chemicals

d. Veterinary products

4.8.2. Main Pharmaceutical Products

Philips Duphar is active in the following product groups: cardiovasculars, hormones and spasmolytics. The company has a strong position on the vitamine D-market.

Philips Duphar has a limited number of brand products.
Some of them are : Pre-Par, Flammazine.
New products and medical diagnosis systems using radio active isotopes are expected to be introduced in 1975.

OTHER COMPANIES

4.9 There are some small companies producing pharmaceuticals in the Netherlands.

Name	Sales 1974 ƒ mln (estimated)	Number of employees
Roter	14	140
Dagra	13	230
Chemische Industrie Katwijk	6	80

4.10. Mergers and Joint Ventures

Gist Brocades started in 1971 a joint venture (So Perlent) with Bayer to do research and production in the penicillin sector.

Gist Brocades tried to merge in 1973 with Centrale Suiker Maatschappij (CSM) and Meneba. The merger was upheld by the Dutch Regulatory Agency for Mergers.

Dow Chemical tried to get a share of Philips Duphar but didn't succeed. Dow was interested in the pharmaceutical production and not in the other parts of Philips Duphar.

1974: Philips Duphar and Akzo-Pharma discussed a merger from which the activities in the U.S. and Canada would be excluded. Akzo would get 75 percent in the new company and Philips 25 percent. The negotiations were stopped after some time due to fundamental differences regarding the formation of the new group; a.o. the weak financial position of Philips Duphar hampered an agreement.

1975: After an internal reorganisation, which created two divisions: one for pharmaceuticals and one for crop-abatements, Philips Duphar makes another attempt for merger. Johnson & Johnson USA is called as a candidate, as well as Akzo-Pharma.

Dagra has been taken over by the French Laboratories Sarget in Bordeaux.

ANNEXES :

TABLEAUX DE CONCENTRATION

relatifs à l'Industrie PHARMACEUTIQUE (NICE 313.1)
et quelques marchés des produits :

- INDUSTRIE PHARMACEUTIQUE dans son ensemble
- PRODUITS :
  - CARDIOVASCULAIRES (CARDIOVASCULAR DRUGS)
  - SPASMOLYTHIQUES (SPASMOLYTICS)
  - ANTI-DIABETIQUES (ANTI DIABETICS)
  - ANTIBIOTIQUES (ANTIBIOTICS)
  - SEDATIFS ET HYPNOTIQUES (SEDATIVES AND HYPNOTICS)
  - HORMONES (HORMONES)
  - GYNECOLOGIQUES (GYNECOLOGICALS)
  - DERMATOTHERAPEUTIQUES (DERMATOTHERAPEUTICS)
  - ANTI-RHUMATISMAUX (ANTI RHEUMATICS)
  - PSYCHOTROPES (PSYCHOTROPICS)
  - DIURETIQUES (DIURETICS)

IV/A-3

CONCENTRATION INDUSTRIELLE

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1
1970 - 1974

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1970=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1970=100	E/T %
1970	53	863.976	100	5	624.600	100	72.29
1971	49	964.980	111	5	726.500	116	75.29
1972	44	1044.990	120	5	787.200	126	75.33
1973	50	1164.990	134	5	932.700	149	80.06
1974	53	1266.980	146	5	1117.700	178	88.22

VARIABLE : 02 EFFECTIF

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1970=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1970=100	E/T %
1970	53	10.115	100	5	7.763	100	76.75
1971	49	11.728	115	5	7.988	102	68.11
1972	44	11.776	116	5	7.759	99	65.89
1973	50	11.776	116	5	7.816	100	66.37
1974	53	11.816	116	5	8.072	103	68.31

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1970 - 1974

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

VARIABLE : 03 MASSE SALARIALE (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1970=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1970=100	E/T %
1970	53	197.880	100	5	151.080	100	76.35
1971	49	257.796	130	5	174.900	115	67.84
1972	44	300.392	151	5	197.900	130	65.88
1973	50	330.365	166	5	218.900	144	66.26
1974	53	364.092	183	5	248.700	164	68.31

VARIABLE : 08 EXPORT. (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1970=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1970=100	E/T %
1970	53	511.064	100	5	445.400	100	87.15
1971	49	550.500	107	5	521.900	117	94.80
1972	44	621.992	121	5	574.100	128	92.30
1973	53	744.484	145	5	704.500	158	94.63
1974				5	852.100	191	

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1970 - 1974

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

VARIABLE : 10 VENTES SUR LE MARCHE NATIONAL (1000 H fl.)

ANNEE	TOTAL			ECHANTILLON			E/T %
	N	VALEUR (T)	1970=100	N*	VALEUR (E)	1970=100	
1970	53	352.960	100	5	179.200	100	50.77
1971	49	413.976	117	5	202.600	113	48.94
1972	44	422.998	119	5	213.100	118	50.38
1973	50	422.960	119	5	228.200	127	53.95
1974	53	419.968	118	5	265.600	148	63.24

IV/A-3

EVOLUTION DE LA CONCENTRATION

TABLEAU NO 2

TOTAL DU SECTEUR

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 VENTES SUR LE MARCHE NATIONAL

VARIABLE	1970 N	1970 M	1970 V	1970 G	1970 H	1970 E	1971 N	1971 M	1971 V	1971 G	1971 H	1971 E
0 1	53	16.301	2.32855	.64299	121.17246	-120.24921	49	19.693	2.33515	.66747	131.69201	-114.87389
0 2	53	.191	2.77118	.69793	163.76347	-109.62004	49	.239	2.26728	.60093	125.31714	-122.13860
0 3	53	3.734	2.75719	.69386	162.30402	-110.23164	49	5.261	2.25729	.59819	124.39510	-122.49563
0 8	53	9.643	2.88711	.79512	176.14005	-96.09512	49	11.235	3.06971	.86884	212.71654	-79.91948
010	53	6.660	1.67711	.42709	71.93768	-145.04800	49	8.448	1.46960	.40000	64.48395	-145.67879

VARIABLE	1972 N	1972 M	1972 V	1972 G	1972 H	1972 E	1973 N	1973 M	1973 V	1973 G	1973 H	1973 E
0 1	44	23.750	2.17743	.65708	130.48214	-113.74327	50	23.300	2.54362	.71815	149.39973	-107.61315
0 2	44	.268	2.04213	.56842	117.50698	-123.47872	50	.236	2.21565	.58418	118.18247	-125.12606
0 3	44	6.827	2.04118	.56832	117.41871	-123.50019	50	6.607	2.21144	.58303	117.80912	-125.27376
0 8	44	14.136	2.77863	.83312	198.19944	-85.22352	53	14.047	3.22493	.87436	215.09819	-79.99118
010	44	9.614	1.39616	.40371	67.02879	-141.96733	50	8.459	1.62472	.45111	72.79437	-141.59041

IV/A-3

EVOLUTION DE LA CONCENTRATION

*TABLEAU NO 2 *

TOTAL DU SECTEUR

PAGE 2

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES
VARIABLES : 01 CHIFFRE D'AFFAIRES 02 EFFECTIF 03 MASSE SALARIALE
04 BENEFICE NET 05 CASH FLOW 06 INVESTIS BRUTS
07 CAPITAUX PROPRES 08 EXPORT. 09 IMPORT. 10 VENTES SUR LE MARCHE NATIONAL

VARIABLE	1974 N	1974 M	1974 V	1974 G	1974 H	1974 E	N	M	V	G	H	E
0 1	53	23.905	2.91781	.80556	179.50266	-94.08859						
0 2	53	.223	2.37202	.60863	125.02815	-123.40138						
0 3	53	6.870	2.37134	.60855	124.96695	-123.41627						
010	53	7.924	1.99422	.55024	93.90437	-132.36510						

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3

1970 - 1974

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L – ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1970	L	.37602	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.42575	2	.53381	2	.53381	4	.37602
	CR	66.51	.00	.00	.00	.00	.00	.00			72.29						
1971	L	.38826	.00000	.00000	.00000	.00000	.00000	.00000	49	5	.43049	2	.63818	2	.63818	4	.38826
	CR	69.17	.00	.00	.00	.00	.00	.00			75.29						
1972	L	.38394	.00000	.00000	.00000	.00000	.00000	.00000	44	5	.40954	2	.60726	2	.60726	4	.38394
	CR	68.73	.00	.00	.00	.00	.00	.00			75.33						
1973	L	.40610	.00000	.00000	.00000	.00000	.00000	.00000	50	5	.43551	2	.62115	2	.62115	3	.40215
	CR	73.45	.00	.00	.00	.00	.00	.00			80.06						
1974	L	.42334	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.41662	2	.57544	2	.57544	3	.39408
	CR	80.01	.00	.00	.00	.00	.00	.00			88.22						

IV/A-3

E V O L U T I O N   D E   L A   C O N C E N T R A T I O N

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

TABLEAU NO 3

1970 - 1974

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

VARIABLE : 02 EFFECTIF

ANNEE	L ET CR %		INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	L N*	1ER MAXIMUM N* H<	L N*H<	2EM MAXIMUM N* H	L N*H	MINIMUM N* M	L N*M
1970	L		.65842	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.68851	2	.60141	5	.68851	3	.58245
	CR	72.40		.00	.00	.00	.00	.00	.00			76.75						
1971	L		.56834	.00000	.00000	.00000	.00000	.00000	.00000	49	5	.61905	2	.54255	5	.61905	2	.54255
	CR	64.02		.00	.00	.00	.00	.00	.00			68.11						
1972	L		.57634	.00000	.00000	.00000	.00000	.00000	.00000	44	5	.59079	2	.54409	5	.59079	2	.54409
	CR	61.47		.00	.00	.00	.00	.00	.00			65.89						
1973	L		.57986	.00000	.00000	.00000	.00000	.00000	.00000	50	5	.57479	3	.59905	3	.59905	5	.57479
	CR	61.62		.00	.00	.00	.00	.00	.00			66.37						
1974	L		.59807	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.56469	3	.61607	3	.61607	5	.56469
	CR	63.07		.00	.00	.00	.00	.00	.00			68.31						

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3

1970 - 1974

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

PAGE 3

VARIABLE : 03 MASSE SALARIALE

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1970	L	.66007	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.68892	2	.60128	5	.68892	3	.58574
	CR	72.01	.00	.00	.00	.00	.00	.00			76.35						
1971	L	.56845	.00000	.00000	.00000	.00000	.00000	.00000	49	5	.61938	2	.54301	5	.61938	2	.54301
	CR	63.77	.00	.00	.00	.00	.00	.00			67.84						
1972	L	.57591	.00000	.00000	.00000	.00000	.00000	.00000	44	5	.58973	2	.54444	5	.58973	2	.54444
	CR	61.45	.00	.00	.00	.00	.00	.00			65.88						
1973	L	.58024	.00000	.00000	.00000	.00000	.00000	.00000	50	5	.57467	3	.59880	3	.59880	5	.57467
	CR	61.51	.00	.00	.00	.00	.00	.00			66.26						
1974	L	.59760	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.56445	3	.61544	3	.61544	5	.56445
	CR	63.06	.00	.00	.00	.00	.00	.00			68.31						

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3

1970 - 1974

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

VARIABLE : 08 EXPORT.

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1970	L	.41059	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.42171	2	.72727	2	.72727	4	.41059
	CR	79.32	.00	.00	.00	.00	.00	.00			87.15						
1971	L	.44084	.00000	.00000	.00000	.00000	.00000	.00000	49	5	.44019	2	.75847	2	.75847	5	.44019
	CR	86.27	.00	.00	.00	.00	.00	.00			94.80						
1972	L	.44107	.00000	.00000	.00000	.00000	.00000	.00000	44	5	.42437	2	.65603	2	.65603	5	.42437
	CR	83.46	.00	.00	.00	.00	.00	.00			92.30						
1973	L	.48406	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.46563	2	.65000	2	.65000	5	.46563
	CR	86.30	.00	.00	.00	.00	.00	.00			94.63						
1974	L	.48501	.00000	.00000	.00000	.00000	.00000	.00000		5	.43213	2	.57675	2	.57675	5	.43213
	CR																

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3

1970 - 1974

PAGE 5

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313,1)
ENTREPRISES

VARIABLE : 10 VENTES SUR LE MARCHE NATIONAL

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1970	L	.45783	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.57328	2	.97500	2	.97500	4	.45783
	CR	47.94	.00	.00	.00	.00	.00	.00			50.77						
1971	L	.40102	.00000	.00000	.00000	.00000	.00000	.00000	49	5	.51690	2	.79556	2	.79556	4	.40102
	CR	46.04	.00	.00	.00	.00	.00	.00			48.94						
1972	L	.38687	.00000	.00000	.00000	.00000	.00000	.00000	44	5	.48049	2	.79457	2	.79457	4	.38687
	CR	47.07	.00	.00	.00	.00	.00	.00			50.38						
1973	L	.35218	.00000	.00000	.00000	.00000	.00000	.00000	50	5	.45609	2	.77292	2	.77292	4	.35218
	CR	50.41	.00	.00	.00	.00	.00	.00			53.95						
1974	L	.34702	.00000	.00000	.00000	.00000	.00000	.00000	53	5	.43255	2	.59692	2	.59692	4	.34702
	CR	58.72	.00	.00	.00	.00	.00	.00			63.24						

CONCENTRATION INDUSTRIELLE

* TABLEAU NO 3BIS *

TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

ANNEE : 1970

N.	01 CHIFFRE D'AFFAIRES	02 EFFECTIF	03 MASSE SALARIALE	08 EXPORT.	10 VENTE NAT.
2	.53381	.60141	.60128	.72727	.97500
3	.43172	.58245	.58574	.44895	.58243
4	.37602	.65842	.66007	.41059	.45783
5	.42575	.68851	.68892	.42171	.57328

IV/A-3

CONCENTRATION INDUSTRIELLE

* TABLEAU NO 3BIS *

TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

ANNEE : 1971

Nr	01 CHIFFRE D'AFFAIRES	02 EFFECTIF	03 MASSE SALARIALE	08 EXPORT.	10 VENTE NAT.					
2	,63818	,54255	,54301	,75847	,79556					
3	,43865	,56471	,56424	,50710	,54325					
4	,38826	,56834	,56845	,44084	,40102					
5	,43049	,61905	,61938	,44019	,51690					

IV/A-3

CONCENTRATION INDUSTRIELLE

* TABLEAU NO 3BIS *

TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

PAGE 3

ANNEE : 1972

N	VARIABLE				
	01 CHIFFRE D'AFFAIRES	02 EFFECTIF	03 MASSE SALARIALE	08 EXPORT.	10 VENTE NAT.
2	.60726	.54409	.54444	.65603	.79457
	========				
		--------	--------	========	========
3	.39813	.57834	.57817	.47092	.51320
4	.38394	.57634	.57591	.44107	.38687
	--------				--------
5	.40954	.59079	.58973	.42437	.48049
		========	========		

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU STRUCTUREL DES COURBES LINDA

* TABLEAU NO 3BIS *

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

PAGE 4

ANNEE : 1973

N.	01 CHIFFRE D'AFFAIRES	02 EFFECTIF	03 MASSE SALARIALE	08 EXPORT.	10 VENTE NAT.					
2	.62115	.59072	.59036	.65000	.77292					
3	.40215	.59905	.59880	.47439	.47702					
4	.40610	.57986	.58024	.48406	.35218					
5	.43551	.57479	.57467	.46563	.45609					

CONCENTRATION INDUSTRIELLE

TABLEAU NO 3BIS

TABLEAU STRUCTUREL DES COURBES LINDA

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

ANNEE : 1974

N	01 CHIFFRE D'AFFAIRES	02 EFFECTIF	03 MASSE SALARIALE	08 EXPORT.	10 VENTE NAT.					
2	.57544	.58633	.58596	.57675	.59692					
3	.39408	.61607	.61544	.43327	.42050					
4	.42334	.59807	.59760	.48501	.34702					
5	.41662	.56469	.56445	.43213	.43255					

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU RECAPITULATIF DES INDICES L

TABLEAU NO 4

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PHARMACEUTIQUE (NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	ANNEE														
	1970 INDICES			1971 INDICES			1972 INDICES			1973 INDICES			1974 INDICES		
	N* M	LN*M	LS	N* M	LN*M	LS	N* M	LN*M	LS	N* M	LN*M	LS	N* M	LN*M	LS
01 CHIFFRE D'AFFAIRES	4	.37602	.44718	4	.38826	.48836	4	.38394	.46311	3	.40215	.51165	3	.39408	.48476
02 EFFECTIF	3	.58245	.59193	2	.54255	.54255	2	.54409	.54409	5	.57479	.58610	5	.56469	.59129
03 MASSE SALARIALE	3	.58574	.59351	2	.54301	.54301	2	.54444	.54444	5	.57467	.58602	5	.56445	.59086
08 EXPORT.	4	.41059	.52894	5	.44019	.53665	5	.42437	.49810	5	.46563	.51852	5	.43213	.48179
10 VENTES SUR LE MARCHE NATIONAL	4	.45783	.67175	4	.40102	.57994	4	.38687	.56488	4	.35218	.53404	4	.34702	.45482

IV/A-3

CONCENTRATION INDUSTRIELLE

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : CARDIOVASCULAR DRUGS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				5	13,090	100	
1970				7	17,730	135	
1971				7	27,730	211	
1972				7	35,940	274	
1973				7	42,520	324	

84

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3

1969 - 1973

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : CARDIOVASCULAR DRUGS (EX NICE 313,1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1969	L	.50320	.00000	.00000	.00000	.00000	.00000	.00000		5	.47484	2	.79327	2	.79327	5	.47484
	CR																
1970	L	.55285	.00000	.00000	.00000	.00000	.00000	.00000		7	.71639	2	.81830	2	.81830	5	.46885
	CR																
1971	L	.50577	.00000	.00000	.00000	.00000	.00000	.00000		7	.29690	2	.77290	2	.77290	7	.29690
	CR																
1972	L	.44323	.00000	.00000	.00000	.00000	.00000	.00000		7	.30726	2	.76807	2	.76807	7	.30726
	CR																
1973	L	.41376	.00000	.00000	.00000	.00000	.00000	.00000		7	.37209	2	.72458	2	.72458	6	.36649
	CR																

CONCENTRATION INDUSTRIELLE

** TABLEAU NO 4 **

TABLEAU RECAPITULATIF DES INDICES L

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : CARDIOVASCULAR DRUGS (EX NICE 313,1)
ENTREPRISES

PAGE 1

VARIABLES	ANNEE 1969 INDICES N*M	1969 LN*M	1969 LS	1970 INDICES N*M	1970 LN*M	1970 LS	1971 INDICES N*M	1971 LN*M	1971 LS	1972 INDICES N*M	1972 LN*M	1972 LS	1973 INDICES N*M	1973 LN*M	1973 LS
VARIABLES	INDICES N*M	LN*M	LS	INDICES N*M	LN*M	LS	INDICES N*M	LN*M	LS	INDICES N*M	LN*M	LS	INDICES N*M	LN*M	LS
01 CHIFFRE D'AFFAIRES	5	.47484	.61041	5	.46885	.63151	7	.29690	.48708	7	.30726	.46629	6	.36649	.47480

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1969 - 1973

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : SPASMOLYTICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

	TOTAL			ECHANTILLON			
ANNEE	N	VALEUR (T)	1969=100	N*	VALEUR (E)	1969=100	E/T %
1969				4	3,746	100	
1970				4	4,780	127	
1971				4	5,473	146	
1972				4	6,732	179	
1973				4	8,778	234	

IV/A-3

E V O L U T I O N   D E   L A   C O N C E N T R A T I O N

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

TABLEAU NO 3
1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : SPASMOLYTICS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	L N*	1ER MAXIMUM N* H<	L N*H<	2EM MAXIMUM N* H	L N*H	MINIMUM N* M	L N*M
1969	L	.56209	.00000	.00000	.00000	.00000	.00000	.00000		4	.56209	2	.73187	2	.73187	3	.45298
	CR																
1970	L	.50059	.00000	.00000	.00000	.00000	.00000	.00000		4	.50059	2	.70447	2	.70447	3	.44654
	CR																
1971	L	.39204	.00000	.00000	.00000	.00000	.00000	.00000		4	.39204	2	.59239	2	.59239	4	.39204
	CR																
1972	L	.31187	.00000	.00000	.00000	.00000	.00000	.00000		4	.31187	2	.62500	2	.62500	4	.31187
	CR																
1973	L	.40717	.00000	.00000	.00000	.00000	.00000	.00000		4	.40717	2	.61567	2	.61567	4	.40717
	CR																

CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

TABLEAU RECAPITULATIF DES INDICES L

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : SPASMOLYTICS (EX NICE 313.1)
ENTREPRISES

VARIABLES	1969 N M	1969 LN*M	1969 LS	1970 N M	1970 LN*M	1970 LS	1971 N M	1971 LN*M	1971 LS	1972 N M	1972 LN*M	1972 LS	1973 N M	1973 LN*M	1973 LS
01 CHIFFRE D'AFFAIRES	3	.45298	.59242	3	.44654	.57551	4	.39204	.46615	4	.31187	.44423	4	.40717	.50578

CONCENTRATION INDUSTRIELLE

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI DIABETICS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				6	10,544	100	
1970				6	11,705	111	
1971				6	13,613	129	
1972				6	16,453	156	
1973				6	17,721	168	

IV/A-3

E V O L U T I O N D E L A C O N C E N T R A T I O N

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

TABLEAU NO 3

1969 - 1973

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI DIABETICS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	L N*	1ER MAXIMUM N* H<	L N*H<	2EM MAXIMUM N* H	L N*H	MINIMUM N* M	L N*M
1969	L	.51401	.00000	.00000	.00000	.00000	.00000	.00000		6	.61896	2	.95615	2	.95615	4	.51401
	CR																
1970	L	.55270	.00000	.00000	.00000	.00000	.00000	.00000		6	.50045	2	.99129	2	.99129	5	.47780
	CR																
1971	L	.64655	.00000	.00000	.00000	.00000	.00000	.00000		6	.49812	2	.96200	2	.96200	6	.49812
	CR																
1972	L	.73347	.00000	.00000	.00000	.00000	.00000	.00000		6	.52883	3	.91062	3	.91062	6	.52883
	CR																
1973	L	.85382	.00000	.00000	.00000	.00000	.00000	.00000		6	.57700	3	.95721	3	.95721	6	.57700
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

* TABLEAU NO 4 *

TABLEAU RECAPITULATIF DES INDICES L

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI DIABETICS (EX NICE 313.1)
ENTREPRISES

VARIABLES	1969 N M	1969 LN*M	1969 LS	1970 N M	1970 LN*M	1970 LS	1971 N M	1971 LN*M	1971 LS	1972 N M	1972 LN*M	1972 LS	1973 N M	1973 LN*M	1973 LS
01 CHIFFRE D'AFFAIRES	4	.51401	.71624	5	.47780	.69032	6	.49812	.69453	6	.52883	.73336	6	.57700	.79030

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1969 - 1973

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS

INSTITUT : H.W. DE JONG (AMSTERDAM)

SECTEUR : ANTI BIOTICS (EX NICE 313.1)

ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				5	31,130	100	
1970				5	35,363	113	
1971				5	39,760	127	
1972				6	43,430	139	
1973				6	52,200	167	

IV/A-3

E V O L U T I O N   D E   L A   C O N C E N T R A T I O N

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

TABLEAU NO 3

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI BIOTICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1969	L	4.52814	.00000	.00000	.00000	.00000	.00000	.00000		5	6.58379	2	1.02381	5	6.58379	2	1.02381
	CR																
1970	L	2.38646	.00000	.00000	.00000	.00000	.00000	.00000		5	3.75261	2	.77165	5	3.75261	2	.77165
	CR																
1971	L	1.55893	.00000	.00000	.00000	.00000	.00000	.00000		5	2.19578	2	.81028	5	2.19578	2	.81028
	CR																
1972	L	1.36010	.00000	.00000	.00000	.00000	.00000	.00000		6	1.22098	2	.75638	4	1.36010	2	.75638
	CR																
1973	L	1.39941	.00000	.00000	.00000	.00000	.00000	.00000		6	1.11748	2	.83439	4	1.39941	2	.83439
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

TABLEAU RECAPITULATIF DES INDICES L

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI BIOTICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	1969 N*M	1969 LN*M	1969 LS	1970 N*M	1970 LN*M	1970 LS	1971 N*M	1971 LN*M	1971 LS	1972 N*M	1972 LN*M	1972 LS	1973 N*M	1973 LN*M	1973 LS
01 CHIFFRE D'AFFAIRES	2	1,02381	1,02381	2	,77165	,77165	2	,81028	,81028	2	,75638	,75638	2	,83439	,83439

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1969 - 1973

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : SEDATIVES + HYPNOTICS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				4	4.503	100	
1970				4	5.440	120	
1971				4	7.068	156	
1972				4	8.289	184	
1973				4	10.288	228	

IV/A-3

E V O L U T I O N   D E   L A   C O N C E N T R A T I O N

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

TABLEAU NO 3

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : SEDATIVES + HYPNOTICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	L N*	1ER MAXIMUM N* H<	L N*H<	2EM MAXIMUM N* H	L N*H	MINIMUM N* M	L N*M
1969	L	.64284	.00000	.00000	.00000	.00000	.00000	.00000		4	.64284	3	.79230	3	.79230	4	.64284
	CR																
1970	L	,87206	,00000	,00000	,00000	,00000	,00000	,00000		4	,87206	2	1,02920	2	1,02920	3	,85504
	CR																
1971	L	1.26637	.00000	.00000	.00000	.00000	.00000	.00000		4	1.26637	2	1.47500	2	1.47500	3	1.02808
	CR																
1972	L	1.41874	.00000	.00000	.00000	.00000	.00000	.00000		4	1.41874	2	1.87474	2	1.87474	3	1.18139
	CR																
1973	L	1.88034	.00000	.00000	.00000	.00000	.00000	.00000		4	1.88034	2	2.51118	2	2.51118	3	1.39201
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU RECAPITULATIF DES INDICES L

TABLEAU NO 4

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : SEDATIVES + HYPNOTICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	ANNEE														
	1969 INDICES			1970 INDICES			1971 INDICES			1972 INDICES			1973 INDICES		
	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS
VARIABLES	INDICES			INDICES			INDICES			INDICES			INDICES		
	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS
01 CHIFFRE D'AFFAIRES	4	,64284	,74023	3	,85504	,94212	3	1,02808	1,25154	3	1,18139	1,52806	3	1,39201	1,95160

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1969 - 1973

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : HORMONES (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				4	4,096	100	
1970				4	4,801	117	
1971				5	5,807	141	
1972				5	6,553	159	
1973				5	7,968	194	

IV/A-3

E V O L U T I O N D E L A C O N C E N T R A T I O N

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

TABLEAU NO 3
1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : HORMONES (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1969	L	.55566	.00000	.00000	.00000	.00000	.00000	.00000	4	.55566	2	1.23058	2	1.23058	4	.55566
	CR															
1970	L	.56122	.00000	.00000	.00000	.00000	.00000	.00000	4	.56122	2	1.25027	2	1.25027	4	.56122
	CR															
1971	L	.61742	.00000	.00000	.00000	.00000	.00000	.00000	5	.54413	2	1.29207	2	1.29207	5	.54413
	CR															
1972	L	.66905	.00000	.00000	.00000	.00000	.00000	.00000	5	.54384	2	1.39560	2	1.39560	5	.54384
	CR															
1973	L	.61258	.00000	.00000	.00000	.00000	.00000	.00000	5	.59987	2	1.14823	2	1.14823	5	.59987
	CR															

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

TABLEAU RECAPITULATIF DES INDICES L

PAGE 1

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : HORMONES (EX NICE 313.1)
ENTREPRISES

VARIABLES	1969 INDICES N*M	1969 INDICES LN*M	1969 INDICES LS	1970 INDICES N*M	1970 INDICES LN*M	1970 INDICES LS	1971 INDICES N*M	1971 INDICES LN*M	1971 INDICES LS	1972 INDICES N*M	1972 INDICES LN*M	1972 INDICES LS	1973 INDICES N*M	1973 INDICES LN*M	1973 INDICES LS
VARIABLES	INDICES N*M	INDICES LN*M	INDICES LS	INDICES N*M	INDICES LN*M	INDICES LS	INDICES N*M	INDICES LN*M	INDICES LS	INDICES N*M	INDICES LN*M	INDICES LS	INDICES N*M	INDICES LN*M	INDICES LS
01 CHIFFRE D'AFFAIRES	4	.55566	.84968	4	.56122	.85694	5	.54413	.81133	5	.54384	.85152	5	.59987	.77410

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1969 - 1973

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS

INSTITUT : H.W. DE JONG (AMSTERDAM)

SECTEUR : GYNAECOLOGICALS (EX NICE 313.1)

ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				6	8.834	100	
1970				6	11.172	126	
1971				5	6.096	69	
1972				5	17.406	197	
1973				5	24.722	279	

IV/A-3

E V O L U T I O N D E L A C O N C E N T R A T I O N

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

TABLEAU NO 3

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : GYNAECOLOGICALS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	L / N*	1ER MAXIMUM N* H<	L / N*H<	2EM MAXIMUM N* H	L / N*H	MINIMUM N* M	L / N*M
1969	L	1.98698	.00000	.00000	.00000	.00000	.00000	.00000		6	1.70049	2	1.36995	3	2.10689	2	1.36995
	CR																
1970	L	1,38606	,00000	,00000	,00000	,00000	,00000	,00000		6	2,45795	3	1,39088	6	2,45795	5	1,19210
	CR																
1971	L	,65782	,00000	,00000	,00000	,00000	,00000	,00000		5	,52994	2	1,08333	2	1,08333	5	,52994
	CR																
1972	L	.74410	.00000	.00000	.00000	.00000	.00000	.00000		5	.76375	2	.56818	5	.76375	3	.48634
	CR																
1973	L	.84090	.00000	.00000	.00000	.00000	.00000	.00000		5	.90204	2	.76126	5	.90204	3	.50209
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

* TABLEAU NO 4 *

TABLEAU RECAPITULATIF DES INDICES L

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : GYNAECOLOGICALS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	ANNEE 1969 INDICES N*M	LN*M	LS	1970 INDICES N*M	LN*M	LS	1971 INDICES N*M	LN*M	LS	1972 INDICES N*M	LN*M	LS	1973 INDICES N*M	LN*M	LS
01 CHIFFRE D'AFFAIRES	2	1.36995	1.36995	5	1.19210	1.29489	5	.52994	.79058	3	.48634	.52726	3	.50209	.63168

IV/A-3

CONCENTRATION INDUSTRIELLE

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1
1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : DERMATOTHERAPEUTICS (EX NICE 313,1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				6	8,787	100	
1970				6	10,747	122	
1971				6	12,410	141	
1972				7	14,103	160	
1973				6	16,601	188	

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : DERMATOTHERAPEUTICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1969	L	.64691	.00000	.00000	.00000	.00000	.00000	.00000		6	.52284	2	.87041	2	.87041	6	.52284
	CR																
1970	L	.63379	.00000	.00000	.00000	.00000	.00000	.00000		6	.64153	2	.87827	2	.87827	3	.52967
	CR																
1971	L	.60939	.00000	.00000	.00000	.00000	.00000	.00000		6	.90390	2	.85660	6	.90390	3	.51849
	CR																
1972	L	.60942	.00000	.00000	.00000	.00000	.00000	.00000		7	1.03557	2	.90698	7	1.03557	6	.57295
	CR																
1973	L	.60659	.00000	.00000	.00000	.00000	.00000	.00000		6	.55272	2	.74386	2	.74386	6	.55272
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU RECAPITULATIF DES INDICES L

TABLEAU NO 4

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : DERMATOTHERAPEUTICS (EX NICE 313.1)
ENTREPRISES

VARIABLES	1969 INDICES			1970 INDICES			1971 INDICES			1972 INDICES			1973 INDICES		
	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS
01 CHIFFRE D'AFFAIRES	6	.52284	.63328	3	.52967	.70597	3	.51849	.68755	6	.57295	.65638	6	.55272	.62440

CONCENTRATION INDUSTRIELLE

TABLEAU NO 1

1969 - 1973

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI RHEUMATICS (EX NICE 313,1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				4	15,160	100	
1970				5	21,006	138	
1971				5	25,748	169	
1972				5	29,116	192	
1973				5	32,886	216	

IV/A-3

E V O L U T I O N   D E   L A   C O N C E N T R A T I O N

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

TABLEAU NO 3

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI RHEUMATICS (EX NICE 313,1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L — ECHANTILLON N*	L N*	1ER MAXIMUM N* H<	L N*H<	2EM MAXIMUM N* H	L N*H	MINIMUM N* M	L N*M
1969	L	1.49943	.00000	.00000	.00000	.00000	.00000	.00000		4	1.49943	2	1.31848	3	1.79769	2	1.31848
	CR																
1970	L	1.63305	.00000	.00000	.00000	.00000	.00000	.00000		5	1.48412	2	1.48339	3	1.90155	2	1.48339
	CR																
1971	L	1.55998	.00000	.00000	.00000	.00000	.00000	.00000		5	1.34293	3	1.82935	3	1.82935	5	1.34293
	CR																
1972	L	1.32909	.00000	.00000	.00000	.00000	.00000	.00000		5	1.30053	2	1.84767	2	1.84767	3	1.17637
	CR																
1973	L	1.27275	.00000	.00000	.00000	.00000	.00000	.00000		5	1.27082	2	1.50490	2	1.50490	3	.99399
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

TABLEAU RECAPITULATIF DES INDICES L

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : ANTI RHEUMATICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	ANNEE													
	1969 INDICES			1970 INDICES			1971 INDICES			1972 INDICES			1973 INDICES	
	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS
VARIABLES	INDICES			INDICES			INDICES			INDICES			INDICES		
	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS
01 CHIFFRE D'AFFAIRES	2	1.31848	1,31848	2	1,48339	1.48339	5	1.34293	1,62381	3	1.17637	1,51202	3	,99399	1.24945

IV/A-3

CONCENTRATION INDUSTRIELLE

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1
1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PSYCHOTROPICS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				5	22,610	100	
1970				6	28,085	124	
1971				6	36,499	161	
1972				6	38,199	168	
1973				6	40,013	176	

E V O L U T I O N   D E   L A   C O N C E N T R A T I O N

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

TABLEAU NO 3

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PSYCHOTROPICS (EX NICE 313,1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1969	L	1.58701	.00000	.00000	.00000	.00000	.00000	.00000		5	2.04824	2	4.17079	2	4.17079	4	1.58701
	CR																
1970	L	1.45094	.00000	.00000	.00000	.00000	.00000	.00000		6	1.64808	2	3.71538	2	3.71538	4	1.45094
	CR																
1971	L	1.22310	.00000	.00000	.00000	.00000	.00000	.00000		6	1.14595	2	2.84767	2	2.84767	6	1.14595
	CR																
1972	L	1.20816	.00000	.00000	.00000	.00000	.00000	.00000		6	1.11785	2	1.88855	2	1.88855	6	1.11785
	CR																
1973	L	1.16656	.00000	.00000	.00000	.00000	.00000	.00000		6	1.20161	3	1.56674	3	1.56674	5	1.08829
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU NO 4

TABLEAU RECAPITULATIF DES INDICES L

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : PSYCHOTROPICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	ANNEE 1969 INDICES N*M			1970 INDICES N*M			1971 INDICES N*M			1972 INDICES N*M			1973 INDICES N*M		
	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS	N*M	LN*M	LS
01 CHIFFRE D'AFFAIRES	4	1.58701	2,73567	4	1.45094	2.44610	6	1.14595	1.64669	6	1.11785	1,40524	5	1,08829	1,30897

IV/A-3

CONCENTRATION INDUSTRIELLE

EVOLUTION DES DONNEES GLOBALES : TOTAL DU SECTEUR ET ECHANTILLON

TABLEAU NO 1

1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : DIURETICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLE : 01 CHIFFRE D'AFFAIRES (1000 H fl.)

ANNEE	TOTAL N	TOTAL VALEUR (T)	TOTAL 1969=100	ECHANTILLON N*	ECHANTILLON VALEUR (E)	ECHANTILLON 1969=100	E/T %
1969				4	9.075	100	
1970				4	10.639	117	
1971				5	14.442	159	
1972				5	17.842	196	
1973				5	20.916	230	

IV/A-3

EVOLUTION DE LA CONCENTRATION

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

TABLEAU NO 3
1969 - 1973

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : DIURETICS (EX NICE 313.1)
ENTREPRISES

VARIABLE : 01 CHIFFRE D'AFFAIRES

ANNEE	L ET CR %	INDICES L ET CR RELATIFS A N* = 4	8	10	12	20	30	40	N	COURBES L: ECHANTILLON N*	ECHANTILLON L N*	1ER MAXIMUM N* H<	1ER MAXIMUM L N*H<	2EM MAXIMUM N* H	2EM MAXIMUM L N*H	MINIMUM N* M	MINIMUM L N*M
1969	L	.72295	.00000	.00000	.00000	.00000	.00000	.00000		4	.72295	2	1.17059	2	1.17059	4	.72295
	CR																
1970	L	.57472	.00000	.00000	.00000	.00000	.00000	.00000		4	.57472	2	1.04191	2	1.04191	4	.57472
	CR																
1971	L	.62061	.00000	.00000	.00000	.00000	.00000	.00000		5	1.85529	2	.97958	5	1.85529	4	.62061
	CR																
1972	L	.67642	.00000	.00000	.00000	.00000	.00000	.00000		5	.73669	2	1.03331	2	1.03331	3	.67298
	CR																
1973	L	.65251	.00000	.00000	.00000	.00000	.00000	.00000		5	.70390	2	.86746	2	.86746	3	.59823
	CR																

IV/A-3

CONCENTRATION INDUSTRIELLE

TABLEAU RECAPITULATIF DES INDICES L

TABLEAU NO 4

PAYS : PAYS-BAS
INSTITUT : H.W. DE JONG (AMSTERDAM)
SECTEUR : DIURETICS (EX NICE 313.1)
ENTREPRISES

PAGE 1

VARIABLES	1969 N M	1969 LN*M	1969 LS	1970 N M	1970 LN*M	1970 LS	1971 N M	1971 LN*M	1971 LS	1972 N M	1972 LN*M	1972 LS	1973 N M	1973 LN*M	1973 LS
01 CHIFFRE D'AFFAIRES	4	,72295	,88222	4	,57472	,76517	4	,62061	,77999	3	,67298	,85315	3	,59823	,73284

Sales Offices

Belgique — België

Moniteur belge — Belgisch Staatsblad
Rue de Louvain 40-42 —
Leuvenseweg 40-42
1000 Bruxelles — 1000 Brussel
Tel. 5120026
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
Montergade 19
1116 Kobenhavn K
Girokonto 1195
Tel. 141195

BR Deutschland

Verlag Bundesanzeiger
5 Koln 1 — Breite Straße —
Postfach 108006
Tel. (0221) 210348
(Fernschreiber: Anzeiger Bonn 08882595)
Postscheckkonto 83400 Koln

France

Service de vente en France des publications des Communautés européennes
Journal officiel
26, rue Desaix
75732 Paris — Cedex 15
Tél. (1) 5786139 — CCP Paris 23-96

Ireland

Stationery Office

Beggar's Bush
Dublin 4
Tel. 688433

Italia

Libreria dello Stato
Piazza G. Verdi 10
00198 Roma — Tel. (6) 8508
CCP 1/2640
Telex 62008
Agenzie:
00187 Roma - Via XX Settembre (Palazzo Ministero del Tesoro)
20121 Milano - Galleria Vittorio Emanuele 3 — Tel. 806406

Grand-Duché de Luxembourg

Office des publications officielles des Communautés européennes

5, rue du Commerce
Boîte postale 1003 — Luxembourg
Tél. 490081 — CCP 191-90
Compte courant bancaire:
BIL 8-109/6003/300

Nederland

Staatsdrukkerij- en uitgeverijbedrijf

Christoffel Plantijnstraat,
s-Gravenhage
Tel. (070) 814511
Postgiro 425300

United Kingdom

H.M. Stationery Office

P.O. Box 569
London SE 1 9NH
Tel. 01-9286977, ext. 365

United States of America

European Community Information Service

2100 M Street, N.W.
Suite 707
Washington, D.C. 20037
Tel. 2028728350

Schweiz — Suisse — Svizzera

Librairie Payot

6, rue Grenus
1211 Genève
Tél. 318950
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. 2754655

Other countries

Office for Official Publications of the European Communities

5, rue du Commerce
Boîte postale 1003 — Luxembourg
Tél. 490081 — CCP 191-90
Compte courant bancaire:
BIL 8-109/6003/300

FB 165,– Dkr 26,– DM 11,20 FF 20,– Lit. 3050 Fl. 11,40 £ 2.00 **8742**

OFFICE FOR OFFICIAL PUBLICATIONS OF THE EUROPEAN COMMUNITIES 7126
Boîte postale 1003 – Luxembourg