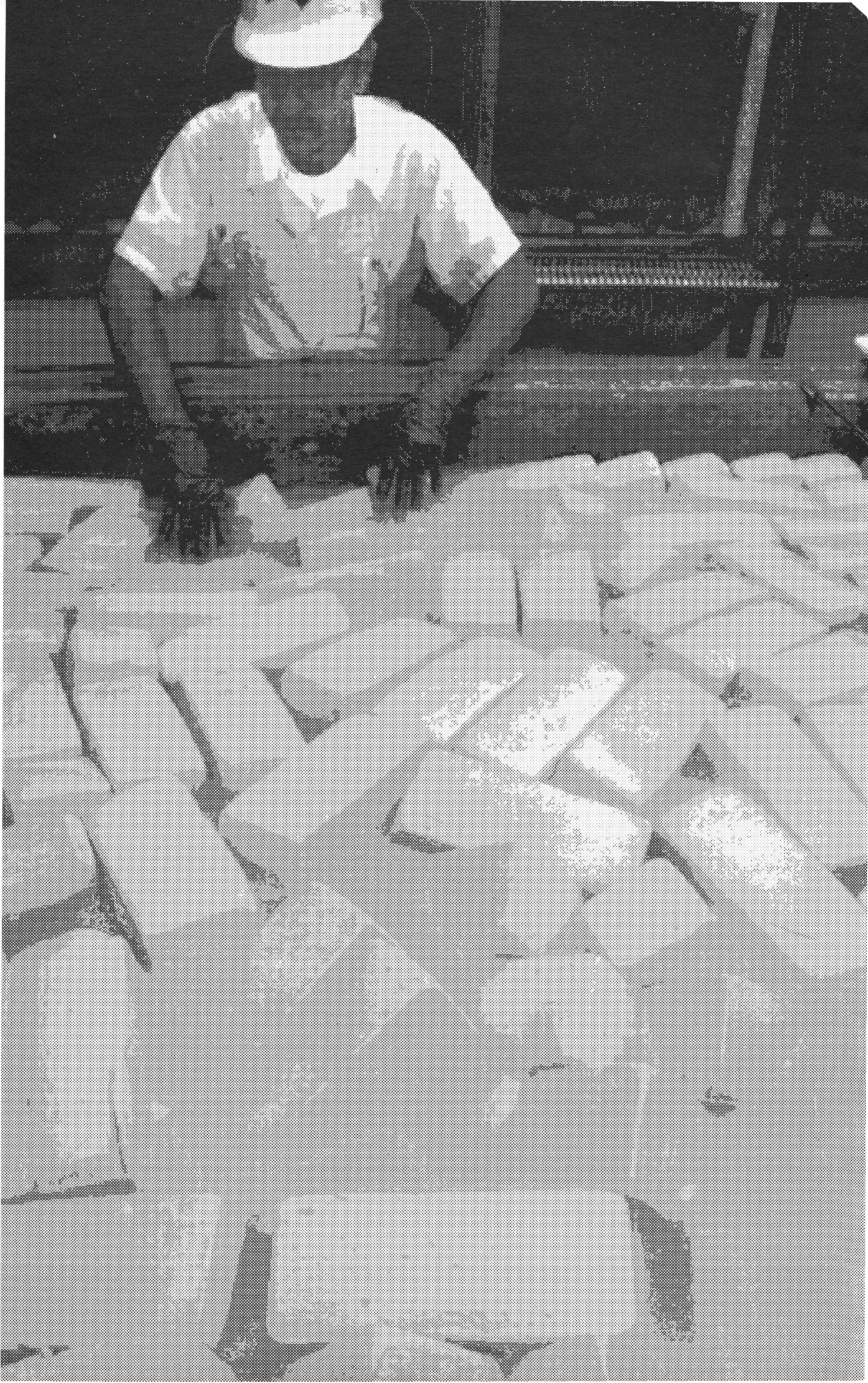


Food, drink and tobacco



The food and drink industry includes all the activities of processing of agricultural products, fish and meat.

These activities are coded within the NACE class 41/42, groups 411 to 429.

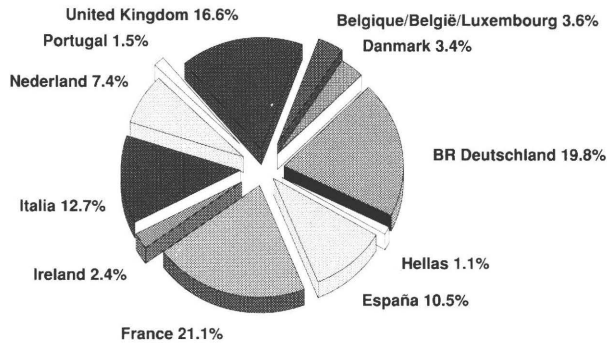
Employment in the EC sector was about 1.7% of the total EC employment in 1989, and it has been decreasing in the 1980's (about 1% per year), from 2 461 000 employees at the beginning of the decade, to 2 260 000 in 1989.

Nevertheless, this trend did not affect all the countries in the same way: in Italy, for example, employment in the food industry has increased since the beginning of the 1980's. This is due to the fragmented structure of the food industry which is characterised by a relevant number of small firms.

In 1989, the production in the food industry accounted for 8% of the whole of manufacturing: in the same year the growth rate of production (+7.4%) at current prices was higher than the average of the previous three years. The largest contribution to this growth was from the Southern Member States (Italy, Spain, Portugal and Greece): this is explained by the higher opportunities available in these markets due to stronger demand.

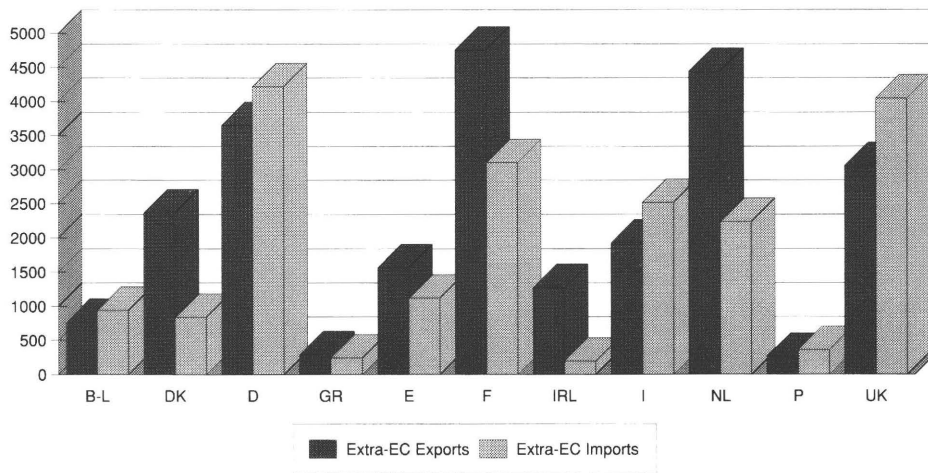
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Figure 1
Food, drink and tobacco
Production, 1989



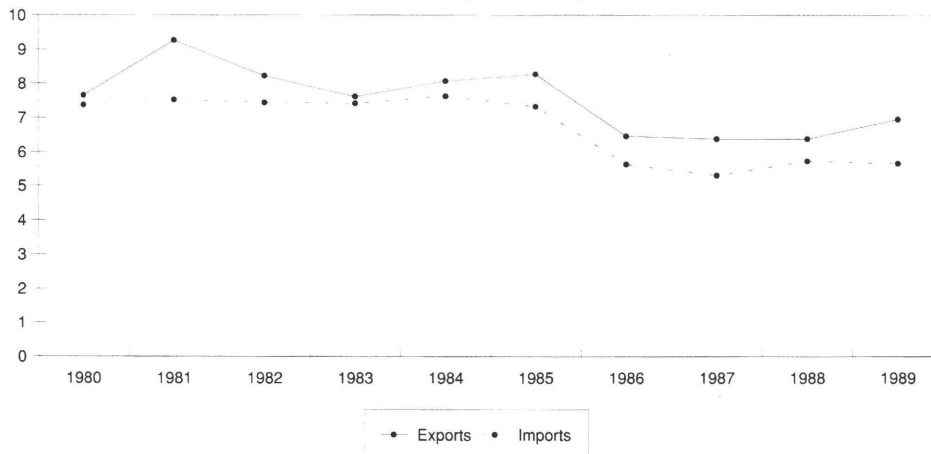
Source: Prometeia Calcolo Srl

Figure 2
Food, drink and tobacco
Extra-EC trade, 1989



Source: Eurostat (Bise)

Figure 3
Food, drink and tobacco
Exports and imports, 1980-89
(% of production)



Source: Eurostat, Prometeia Calcolo Srl

The external balance of trade has followed a positive trend in recent years: the export/import ratio improved (from 1.15 in 1986 to 1.23 in 1989) mainly as a result of the good performance of extra-EC exports, which have been steadily growing since 1985 with respect to extra-EC imports. Net exports significantly continued to grow in those countries which present a structural surplus in extra-EC trade (Spain, The Netherlands and Ireland).

Despite a slight increase in current extra-EC exports, the extra-EC trade has declined in Italy, and likewise in Germany, the United Kingdom, Portugal and Belgium.

Consumption

In 1989, the dimension of EC food market was about 346 billion ECU, but its pattern of change showed a decrease during the period 1986-89 with respect to the trend of the 1980s: the average growth rate for this period was about 4.7% vs. 7.4% during the whole decade.

Food consumption is expected to remain stable, due to a very low growth rate of population and a diminishing income elasticity of demand in rich countries.

Nevertheless, in the countries of the Mediterranean area (particularly in Portugal and Greece) the share of food and drink expenditure in the total household budget is larger than that in other EC countries. As Figure 4 shows, this share is almost 40% in Greece and Portugal, whereas the average share in the other EC Member States is lower than 23%. Some countries present an even lower share in total household budget: in France it is about 18.5%, in the United Kingdom 18.3%, in Denmark 21.6%, and in Italy 22.5%.

The differences among EC countries in food consumption habits extend further

Table 1
Food, drink and tobacco
Main indicators ('), 1980-89

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Apparent consumption	180 855	195 704	218 086	237 711	261 791	267 255	301 717	303 965	324 072	345 924	N/A
Net exports	507	3 428	1 704	471	1 168	2 540	2 551	3 992	2 115	4 527	N/A
Production	181 362	199 132	219 790	238 182	262 959	269 795	304 268	307 957	326 187	350 451	356 759
Employment (thousands)	1 941	2 443	1 898	1 871	1 918	1 866	2 261	2 277	2 274	2 260	N/A

(*) 1980 EC 9; 1981-85 EC10; 1986-89 EC12.

(^o) Estimated on the basis of Eurostat data

Source: Eurostat (Inde, Comext).

and involve the composition of the food expense.

The disparity in the per-capita consumption of some items (Table 5) does not only reveal the influence of geographical and cultural factors, but also shows a different propensity towards fresh food. The figure emphasises, for example, the high con-

sumption of fresh vegetables in Greece and generally in the Southern Member States.

Technologies

In the food and drink industry the role of technologies concentrates more on the product differentiation than on the scale of production. The strategic advantage linked

to economies of scale is peculiar only to a limited kind of food processes: sugar, dairy products, vegetal and animal fats, flour, fruit and vegetable processing and preserving, and beer. In these processes technical optimization is sensitive to the scale of production so that considerable costs saving can be achieved through an in-

Table 2
Food, drink and tobacco
EC trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Exports extra-EC (¹)	13 899	18 431	18 088	18 152	21 233	22 315	19 699	19 653	20 810	24 360
Index (²)	62.3	82.6	81.1	81.3	95.2	100.0	88.3	88.1	93.3	109.2
Imports extra-EC (¹)	13 392	15 003	16 384	17 681	20 065	19 775	17 148	16 350	18 695	19 833
Index (²)	67.7	75.9	82.9	89.4	101.5	100.0	86.7	82.7	94.5	100.3
X/M (¹)	1.04	1.23	1.10	1.03	1.06	1.13	1.15	1.20	1.11	1.23
Trade intra-EC (¹)	21 845	25 684	29 166	31 258	34 908	38 461	40 186	41 288	45 942	50 083
Index (²)	56.8	66.8	75.8	81.3	90.8	100.0	104.5	107.4	119.5	130.2
Share of total (%)	61.2	58.5	61.7	63.2	62.7	63.2	67.0	67.9	67.8	66.7

(¹) 1980 EC9; 1981-85 EC10; 1986-89 EC12.

(²) Taking into account changes in EC membership.

Source: Eurostat (Inde, Bise).

Table 3
Food, drink and tobacco
Production by country

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	206 823	225 011	247 437	265 888	293 606	302 866	304 268	307 957	326 187	350 451
Belgique/België	7 524	8 123	8 890	9 714	10 142	10 518	10 549	10 461	11 067	12 358
Danmark	6 508	7 458	8 546	9 525	10 648	11 050	11 262	10 954	11 259	11 819
BR Deutschland	45 895	47 546	53 386	56 462	59 676	60 646	62 822	64 082	65 038	69 540
Hellas	2 208	2 854	2 966	3 191	3 314	3 574	3 063	2 768	3 176	3 723
España	21 081	23 025	24 595	24 441	27 040	29 234	29 214	30 269	33 230	36 795
France	41 624	46 860	50 441	53 693	58 675	62 339	63 330	63 454	67 471	73 817
Ireland	4 522	4 905	5 587	6 155	6 635	7 274	7 373	7 417	7 758	8 460
Italia	20 365	22 419	24 428	31 737	38 611	37 469	38 397	40 525	41 194	44 433
Luxembourg	80	89	92	92	95	106	107	110	112	118
Nederland	16 010	17 641	18 569	19 870	21 892	22 097	23 676	23 319	24 357	25 907
Portugal	2 172	2 854	3 052	3 265	3 607	3 837	3 925	3 961	4 526	5 220
United Kingdom	38 835	41 238	46 886	47 743	53 271	54 723	50 551	50 637	56 998	58 262

(¹) 1980-89 EC12.

Source: Eurostat (Inde).

Table 4
Food and drink
Employment

(thousand)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	2 460.9	2 353.7	2 335.0	2 299.7	2 331.9	2 276.1	2 260.9	2 277.2	2 274.1	2 259.8
Belgique/België	68.0	65.8	65.7	67.0	65.0	64.3	63.5	62.4	62.5	62.7
Danmark	63.6	63.4	64.7	65.3	67.3	70.6	72.3	72.4	68.7	65.9
BR Deutschland	482.5	469.6	456.3	444.7	436.5	432.4	430.6	433.0	431.8	433.7
Hellas	49.7	49.7	49.0	40.9	49.1	50.4	50.2	49.8	49.8	49.6
España	382.1	365.9	348.8	342.6	332.3	331.1	330.3	332.7	335.3	338.6
France	399.6	392.9	395.8	394.9	386.1	374.7	362.4	354.0	349.0	345.9
Ireland	51.7	50.2	48.0	47.4	46.5	43.8	42.5	40.9	40.6	39.9
Italia	129.6	186.7	204.6	225.5	233.5	225.5	211.7	217.0	216.3	216.0
Luxembourg	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.2	1.2
Nederland	68.3	47.7	66.9	60.7	103.7	93.4	113.9	114.7	113.0	93.1
Portugal	88.2	89.3	87.8	85.8	82.0	79.4	78.5	77.0	78.4	79.5
United Kingdom	613.3	571.3	546.0	523.5	528.4	509.0	503.6	522.1	527.6	533.7

Source: Eurostat (Inde).

crease in the level of production. Automation is extremely important to enhance quality in other productions, especially as far as food preservation is concerned: this is particularly true for industrial baking, biscuits, confectionery and snacks, dry pasta

and processed fish. However, automation is mainly oriented to realise product innovation, through the introduction of new packaging materials. This is done with the purpose of improving consumers appeal, easing recycling after use, in order to

avoid polluting wastes and differentiating one's own products with respect to those of competing firms.

Another promising field of innovation is biotechnology, as it allows for the creation of products highly differentiated from the exist-

Table 5
Food and drink
Consumption for some items (1988)

(kilos per capita)	Fresh vegetables	Meat	Fish	Oils & fats	Frozen vegetables	Frozen ready meals	Confectionures
BR Deutschland	79.0	104.0	7.4	13.6	3.8	1.1	12.0
Danmark	80.0	110.0	37.0	44.0	6.6	2.0	13.2
España	144.0	89.0	10.1	23.9	3.9	0.7	4.6
France	102.0	109.0	5.3	12.1	4.9	0.1	7.0
Hellas	198.0	89.0	3.1	32.4	3.5	0.3	4.9
Italia	176.0	86.0	4.9	26.9	3.1	0.3	3.7
Nederland	105.1	88.1	3.7	22.3	2.9	1.0	10.9
Portugal	123.0	67.0	1.2	28.1	1.5	0.3	2.8
United Kingdom	86.0	79.0	2.2	12.4	5.8	1.5	13.6

Source: Euromonitor.

Table 6
Food and drink
Production

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Production at current prices											
EC ⁽¹⁾	206 823	225 011	247 437	265 888	293 606	302 866	304 268	307 957	326 187	350 451	356 759
Index	68.3	74.3	81.7	87.8	96.9	100.0	100.5	101.7	107.7	115.7	117.8
USA ⁽²⁾											
Index	182 647	242 051	284 550	320 445	377 283	392 801	311 827	N/A	N/A	N/A	N/A
Index	46.5	61.6	72.4	81.6	96.1	100.0	79.4	N/A	N/A	N/A	N/A
EC											
Production at constant prices	255 187	263 081	269 739	278 598	287 905	302 866	293 346	302 265	299 589	306 521	312 958
Index	84.3	86.9	89.1	92.0	95.1	100.0	96.9	99.8	98.9	101.2	103.3

⁽¹⁾ 1980-85 EC12.

⁽²⁾ Census of manufactures and Eurostat estimates.

⁽³⁾ Estimated on the basis of Eurostat data

Source: Eurostat (Inde).



ing ones. This kind of innovation is linked to agriculture, since it affects the method of preserving some products such as fruits and vegetables, it also has an important impact on processing, as it improves in particular the fermentation technologies. The use of microorganisms (i.e. genetically modified) in food, or for the production of food ingredients, will provide numerous benefits that maintain food diversity and improve food quality. Biotechnology should also influence the degree of vertical control of all the different production stages: from the commodity stage to the consumption.

Product innovation is a powerful tool for competition in the food and drink industry. This strategy needs high investments either in R&D to implement new technologies or in marketing policies to support brand image. This brings a larger cost advantage to the largest food and drink corporations with respect to the small firms; moreover, this helps to explain the actual tendency towards a strong concentration in the European food and drink industry.

Industry structure

In 1989 the ten largest food firms in Europe were mainly UK firms (table 7), whose turnover varies between almost 4.3 billion ECU (Hillsdown Holding) and 10.3 billion ECU (Grand Metropolitan). Nestlé is the largest European corporation with a turnover by about 27 billion ECU, followed by Unilever whose turnover is about 58% of Nestlé's.

Among the first 30 firms in the world (table 8), half of them come from the USA, including the top two: Cargill (36.3 billion ECU turnover) and Philip Morris (34 billion ECU, including tobacco); next, we find Swiss, British and Dutch firms.

Two general conclusions can thus be drawn:

- ❖ Northern Member States markets are more concentrated than those in the Southern Member States
- ❖ the European food market is generally, less concentrated than the American market.

This scenario is, however, changeable due to an increasing penetration of the multinational firms in the European markets. This strategy is achieved by means of two major tools, direct investments in plant capacity and merger and acquisition operations. The first policy gives origin to new branches; notably the progressive shift in the location choices from the US market to the European: in 1985-88 the number of European branches of multinational firms has grown by 5% per year. As table 9 shows, the U.K., France, the Netherlands and Italy accounted for 77% of total branches in the EC in 1988.

The second policy has recently been preferred, because it allows a quick and less risky penetration, especially in those foreign markets which are slowly growing.

Mergers and acquisitions

When considering food corporate strategies facing the market, it is important

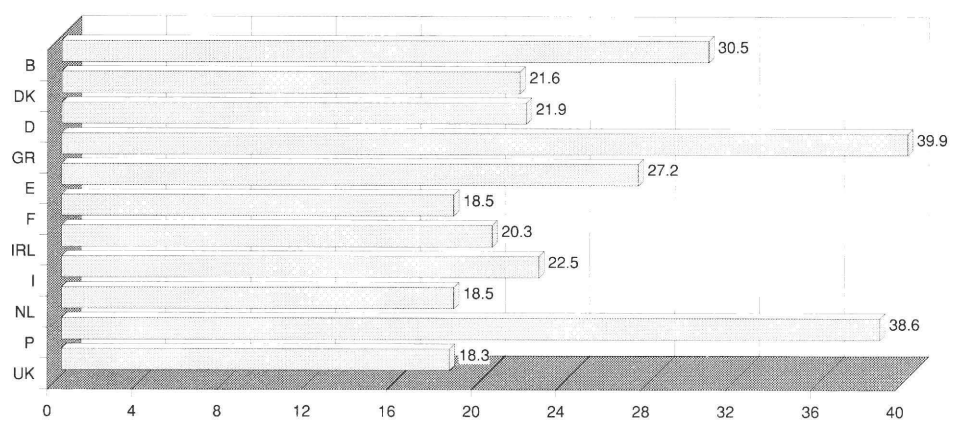
to distinguish two separate approaches. The first relates to a group of corporations which is almost exclusively involved in food commodity transformations like sugar, starch, soya, maize, etc. Within this group the most important example in Europe is the Italian Ferruzzi, whose growing pattern is characterised, at the same time, by diversification in a wide range of commodity transformations, and vertical integration towards the agricultural or commercial trade stage in different countries all over the world.

This double direction of market penetration allows for multiples advantages:

- ❖ cost cut advantages;
- ❖ world price monitoring in the commodity markets;
- ❖ risk-sharing, when facing activities strongly influenced by geographical and climatic conditions.

Following such an approach, Ferruzzi has been involved in 1989 in some operations in Spain, USA, Poland and France (e.g. the acquisition of Oleaginosas Espanola, Langlois S.A. and Canada Packers Inc.). The second approach relates to a group of corporations which hold a significant market power in multiple consumer markets, like confectionery and snacks, dry

Figure 4
Share of food and drink in total household budgets (in %)



Source: CIAA, Prometeia Calcolo Srl

Table 7
Food and drink
The top 10 food multinational firms in Europe (1989)

Firm	Country	Food turnover (billion ECU)
Nestlé	CH	26.90
Unilever	NL/UK	15.80
Grand Met.	UK	10.30
Allied Lyons	UK	8.10
Gruppo Ferruzzi	ITA	(¹) 7.70
Cle Financière Sucres & Denrées	FRA	7.20
Dalgety	UK	6.90
BSN	FRA	6.80
Tate & Lyle	UK	4.90
Hillsdown Holding	UK	4.30
Total		98.9

(¹) Estimated.
Source: Agrodatab (1990).

Table 8
Food and drink
The top 30 food multinational firms in the world, 1989

Firm	Country	Food turnover (million ECU)
Cargill	USA	36 300
Philip Morris	USA	34 029
Nestlé	CH	26 860
Unilever	NL/UK	15 817
Pepsico	USA	13 993
RJR Nabisco	USA	11 582
Grand Metropolitan	UK	10 345
Elders IXL	AUS	10 145
Con Agra	USA	9 528
Anheuser Busch Co.	USA	8 357
Bunge & Born	ARG	8 167
Coca Cola	USA	8 083
Allied Lyons PLC	UK	8 076
Mars	USA	7 972
Gruppo Ferruzzi	ITA	7 713
George Weston	CAN	7 463
Cle Financière Sucres & Denrées	FRA	7 169
Sara Lee	USA	7 134
Dalgety PLC	UK	6 987
BSN Groupe	FRA	6 869
Archer Daniels Midland	USA	6 592
Taiyo Fishery	JAP	5 308
H.J.Heinz	USA	5 272
General Mills	USA	5 261
Borden	USA	5 172
Campbell Soup	USA	5 145
Kirin Brewery	JAP	5 081
Seagram	CAN	5 063
Tate & Lyle	UK	4 900
Ralston Purina	USA	4 855

Source: Agrodatab (1990).

pasta, biscuits, industrial baking, frozen foods, mineral water. This is the domain of the largest corporations in Europe: Nestlé, Unilever, BSN and Philip Morris. These groups are also responsible for the most important M & A operations in the recent years.

The main mergers and acquisitions in 1989 are shown in table 10. These corporations' strategy to penetrate multiple consumer markets seemed to be led by the will to achieve relevant economies of scale in advertising and to reinforce their bargaining power with respect

to retailers.

The growing concentration in retailing is challenging, (particularly in Northern Europe), brand market-power through the increasing sales of retailing labelled goods. Moreover, the acquisition of consolidated brands seems to be the quickest way to gain market share, without expanding total production; this is a crucial factor to avoid a fall of the overall profits for an industry with a slow expansion in demand.

Regulatory environment

The existence of national regulations concerning foodstuffs has built up significant technical barriers which have been limiting the internal trade in the EC market.

The removal of such obstacles and the elimination of both direct and indirect costs implied by them, represents the object of the future EC measures in this field. The Cecchini Report has outlined the existence of more than 200 technical trade barriers in the ten food product sectors chosen for their relevant influence in the intra-EC trade. These barriers are classified into three categories:

- ❖ product composition laws relating to use of generic product name (pasta, beer);
- ❖ specific ingredient restrictions, essentially prohibiting the use of additives in certain products;
- ❖ packaging and labelling laws, whose existence is always justified by the aim of protecting consumers and the environment.

Thus, significant direct benefits are expected to be gained from the elimination of regulation obstacles in trade of oils and fats, pasta, saccharine, beer, chocolate and ice cream. Moreover, important indirect benefits will derive from an increase of competition following the elimination of intra-EC trade barriers.

Table 9
Food and drink
Multinational food firms' branches
in EC, 1985-88
Share by country

	Share in total number of branches	
	1985	1988
Belgique/België	5.8	4.6
BR Deutschland	8.9	6.2
Danmark	2.1	1.6
España	5.2	5.5
France	17.6	18.4
Hellas	0.6	0.8
Ireland	2.9	2.5
Italia	4.0	9.9
Luxemburg	0.4	0.4
Nederland	10.5	11.2
Portugal	1.0	1.1
United Kingdom	40.6	37.6
Total	100.0	100.0
Number	2392	2772

Source: Agrodatab (1990)

Outlook

The achievement of the Single Market is the most important factor influencing the economic perspectives for the European food and drink industries. The harmonisation of food laws will bring some important new opportunities of market growth for the firms now operating only at a national level.

Consumer demand for foods presents some interesting characteristics; the "global consumer" is yet to come, as common trends in food consumption can only be found for the basic products like bread and cereals, meat, oil and fats. The consumption of those products (alcoholic and analcoholic beverages, fruits and vege-

tables, potatoes, etc.) which are more expressive of different national habits do not show, any common trend.

When considering opportunities of market development, firms should take into account the increasing consumer preferences

towards:

- higher-convenience products (ready meals, chilled meals);
- higher quality products (low-fat milk, yogurt, high-fibre products, fresh poultry);
- high variety products (fresh juices and fruits).

In the EC, production is expected to grow by an annual rate of 1.9%, up to 1994; Italy and Spain appear to have the best opportunities as the growth rate will vary in the range of 2% - 2.5% as the influence of fresh food product on total food consumption is expected to drop sharply in the future.

Finally, in the long term, the growth trend for the EC countries will be positively affected by the opening of the ex-German Democratic Republic's market.

Table 10
Food and drink
Mergers & acquisitions in 1989
Principal operations

Acquiring firm	Acquired firm
Philip Morris	Kraft
Grand Metropolitan	Pillsbury
	Kolajannis
	Christian Brothers
	United Biscuits
KKR	RJR Nabisco
BSN	Birkel
	La familia
Galbani	Progurtes
Nestlé	Baby Ruth
	Butterfinger
	Planters
Cadbury	Basset Foods
	Trebor
	Chocolates hueso

Source: Prometeia Calcolo S.r.l

Table 11
Food and drink
Mergers & acquisitions in the year 1987-89

	Acquisitions	Sells
Belgique/België	7	15
BR Deutschland	8	45
Danmark	12	7
France	160	113
Hellas	0	8
Ireland	8	7
Italia	42	56
Luxembourg	0	1
Nederland	75	51
Portugal	0	7
United Kingdom	299	255
EC	616	605
USA	391	407
Rest of World	310	305

Source: Agrodatab (1990)

Table 12
Food and drink
Forecasts, 1989-94

(million Ecu)	1989	1990	1991/90 % change	1992/91 % change	1994/89 % change
Production at constant prices	306 521	312 958	1.7	2.0	1.9

Source: Prometeia Calcolo S.r.l

Written by: Prometeia Calcolo S.r.l.

The industry is represented at EC level by:
CIAA: Confederation of the Food and Drink
industries of the EC. Address: 74, rue de la Loi,
bte 9, B- 1040 Bruxelles;
Tel: (32 2) 230 81 45; Fax: (32 2) 230 85 69



The oils and fats industry plays an important role in the EC food industry, and is strategically linked with the agricultural sector, practically absorbing the entire oilseed production.

Both household and animal feed consumption are stable, but the first is moving from animal to vegetable oils.

The oilseed industry is highly competitive and efficient, but it has to cope with increasing competition, particularly from Far East countries. In order to meet competition the industry faces a process of merging and joint venturing.

Description of the sector

Oils and fats are one and the same product: whether they are in solid or liquid form depends on the local climate.

The following chapter describes the subset of the industry activities as classified in NACE 411.1, 411.3, 411.4, and including:

- ❖ the processing of oilseed and fruits (except olives) into crude oil and protein meal;
- ❖ the refining, hydrogenation and fractionation of crude oil and fats of vegetable and marine origin.

The vegetable and animal oils and fats industry comprises three major types of activity, corresponding to three distinct production stages. In the first stage, oilseed and fruits are processed into either oils and fats or protein meals and cakes; fish is processed into crude oil and meal; oil and fats are derived from the slaughtering of land animals.

In the second stage, processing of crude oils and fats of vegetable and animal (land or marine) origin renders them suitable

both for eating and technical purposes.

In the third stage, margarine, biscuits, confectionery, mayonnaise, bottling, etc., are manufactured from processed edible oils and fats for consumer end users.

Current situation

In 1989 the whole industry employment consisted of about 45 000 people.

Taking into account the 1981 and 1986 EC enlargements, the employment is slightly decreasing. The production at constant prices reached a level of about 20 000 million ECU in 1987, and since then has been stable at the same level.

The major producers are, in order: Spain, Germany and Italy.

Consumption trends are also quite stable, but there is a tendency to substitute oils and fats of animal origin with vegetable oils. This fact derives from the strengthening of the health movement and consumer preference for polyunsaturated fats against saturated fats. In Northern countries margarine has competed successfully with butter; in Mediterranean countries

Table 1
Vegetable and animal oils and fats
Main Indicators, 1980-90 (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(2)
Apparent consumption	11 706	13 072	14 360	15 802	19 530	18 238	16 732	16 041	18 056	19 345	19 532
Net exports	- 2 474	- 2 985	- 3 440	- 3 845	- 4 170	- 3 467	- 2 892	- 2 291	- 3 052	- 2 874	- 2 434
Production (2)	9 232	10 086	10 920	11 957	15 360	14 771	13 840	13 750	15 004	16 471	17 098
Employment (number)(3)	49 051	49 804	48 840	46 664	46 992	43 239	46 816	47 819	46 271	45 405	44 892

(1) 1980 EC9; 1981-85 EC10.

(2) Excluding Luxembourg.

(3) Estimated for: Luxembourg, United Kingdom, Ireland, Denmark, España, Hellas and Portugal.

(4) Estimated

Source: Eurostat (Inde, Comext).

Table 2
Vegetable and animal oils and fats
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(2)
Production in current prices EC (1)	11 480	12 604	13 311	15 214	18 287	18 328	13 840	13 750	15 004	16 471	17 098
Index	62.6	68.8	72.6	83.0	99.8	100.0	75.5	75.0	81.9	89.9	93.3
USA (2)	11745	14373	15310	17136	21834	20554	14194	N/A	N/A	N/A	N/A
Index	57.1	69.9	74.5	83.4	106.2	100.0	69.1	N/A	N/A	N/A	N/A
EC											
Production at constant prices index	17 031	16 732	17 325	18 171	17 613	18 328	17 786	19 732	19 699	19 978	20 202
	92.9	91.3	94.5	99.1	96.1	100.0	97.0	107.7	107.5	109.0	110.2
Value added at current prices (2)	1 699	1 650	1 856	3 004	2 027	2 036	1 871	2 072	2 030	2 239	N/A
Index	96.4	83.0	94.3	102.1	79.2	100.0	107.2	132.1	121.9	121.7	N/A
Productivity index	45.4	39.1	44.4	48.1	37.3	47.1	50.5	62.2	57.4	57.3	N/A
	96.4	83.0	94.3	102.1	79.2	100.0	107.2	132.1	121.9	121.7	N/A
Investment current prices (4)	201	248	207	231	257	203	300	297	N/A	N/A	N/A
Index	99.0	122.2	102.0	113.8	126.6	100.0	147.8	146.3	N/A	N/A	N/A

(1) Excluding Luxembourg.

(2) Census of Manufactures and Eurostat estimates.

(3) Excluding Luxembourg.

(4) Excluding España, Portugal and Luxembourg; 1982 excluding Denmark; 1983-87 excluding Hellas.

(5) Estimated

Source: Eurostat (Inde).

Table 3
Vegetable and animal oils and fats
EC Trade in current value (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(2)
Exports extra-EC index (2)	830	1 105	1 027	1 326	1 548	1 699	1 287	1 284	1 297	1 546	1 466
	50.6	65.0	60.4	78.0	91.1	100.0	64.4	64.3	64.9	77.4	86.3
Imports extra-EC index (2)	3 321	4 127	4 487	5 239	5 877	5 334	4 323	3 731	4 388	4 544	3 900
	62.4	77.4	84.1	98.2	110.2	100.0	76.3	65.8	77.4	80.2	73.1
X/M	0.25	0.27	0.23	0.25	0.26	0.32	0.30	0.34	0.30	0.34	0.37
Trade intra-EC index (2)	1 542	1 884	2 016	2 256	3 280	3 227	2 278	1 983	2 246	2 520	N/A
	78.3	58.4	62.5	69.9	101.6	100.0	69.6	60.5	68.6	76.9	N/A
Share of total (%)	65.2	63.5	66.5	58.8	69.0	66.6	65.3	62.5	61.3	61.1	N/A

(1) 1980 EC 9; 1981-1985 EC10.

(2) Taking into account changes in EC membership.

(3) Estimated

Source: Eurostat (Comext).

Table 4
Vegetable and animal oils and fats
Oilseed production by country, 1988

(1000 tonnes)	Oilseeds processed ⁽¹⁾	% share	Crude oils & fats produced	% share	Meals & cakes produced	% share
Belgique/België, Luxembourg	1 930	8.5	527	8.2	1345	8.5
Danmark	266	1.2	97	1.5	162	1.0
BR Deutschland	5 837	25.6	1 776	27.5	3993	25.1
Hellas	655	2.9	140	2.2	498	3.1
España	2 901	12.7	738	11.4	1981	12.5
France	2 306	10.1	906	14.0	1351	8.5
Italia	2 469	10.8	529	8.2	1953	12.3
Nederland	3 654	16.0	861	13.3	2778	17.5
Portugal	938	4.1	230	3.6	674	4.2
United Kingdom	1 849	8.1	650	10.1	1150	7.2
Total	22 805	100.0	6 454	100.0	15885	100.0

⁽¹⁾ Excluding olives, maize germs, grape and tomato pips.
Source: FEDIOL.

olive oil is widely and increasingly used. An increase of the olive oil share is to be expected in Northern Europe, where importers are already attempting to market olive oil as a mainstream product.

The EC is a net importer of oils and fats: this balance is due to seed oils and to meals used for animal consumption.

Production

Crushing In 1988 the industry crushed about 23 million tonnes of oilseeds and fruits (excluding olives) giving rise to the following estimated production breakdown:

❖ crude vegetable oils and fats:

6.6 million tonnes;

❖ protein meal: 16 million tonnes.

Depending on the type of raw material used, the added value ranges from 25 to 75 ECU per tonne of seeds or fruits.

Whereas half of the seeds is imported from other countries, especially the USA, Brazil and Argentina, the other half is supplied by the EC agriculture.

The oil and fat industry virtually takes over all domestic production of oilseeds (around 11 million tonnes).

Moreover it is the major outlet for crude fish oils from EC fisheries

(140 000 tonnes); it processes the ma-

jority of land animal fat production, i.e. crude lard and tallow, and fulfils the protein-meal requirements of the breeding sector.

Depending on the type of oilseeds and fruits that are crushed, the crushing capacities vary between 25 000 tonnes and 1.5 million tonnes per year.

Given the nature of the technical operations involved the EC oils and fats industry has a relatively small work-force.

The industry is capital intensive and requires considerable investment.

The main producers are Cargill, ADM and Cereol (Ferruzzi).

Cereol has been operating since 1990 and results from the integration of the crushing activities of the Ferruzzi Group in Italy, France, Spain and The Netherlands. By doing this way Cereol is now the third largest European producer.

At the same time there has been a wave of mergers and acquisitions and joint ventures in this sector.

Refining As for refining activity, the industry processes about 6.5 million tonnes of crude oils and fats of vegetable and marine origin (excluding olive oil) per year (see table 4). The largest portion of crude oils and fats processed in the EC is supplied by domestic crushing industry, but palm oil, as well as most of the coco, palm kernel and groundnut oil that is required, is imported from third countries (mainly Malaysia, Indonesia, the Philippines, New Guinea, Senegal, Ivory Coast, and other African countries nearby). Depending on the type of raw material used, the added value ranges from 50 to 200 ECU per tonne of crude oils and fats.

The plant capacity for the processing of crude oils and fats is far smaller than for

Table 5
Vegetable and animal oils and fats
Production by type of oilseed, 1987-1989

(million tonnes)	1987/88	1988/89
Rapeseed	5.80	5.30
Sunflower seeds	3.85	4.20
Soyabeans	1.88	1.60

Source: FEDIOL.

Table 6
Vegetable and animal oils and fats
Overall results of the European oils and fats industry, 1988

(1000 tonnes)	Industr. prod.	Imports extra-EC (²)	Exports extra-EC (²)	Apparent consump. (³)
Vegetable products				
- Oils and Fats (¹)				
Liquid	6 427	509	2 052	4 884
Laurics (coconut/palmkernel)	76	772	21	827
Linseed	91	20	26	85
Castor	17	54	3	68
Palm		927	21	906
TOTAL	6 611	2 282	2 123	6 770
- Protein meal				
Soya	9 833	9 714	1 668	17 879
Colza/Rape	3 323	362	105	3 580
Sunflower	2 028	1 059	14	3 073
Cotton	302	805	16	1 091
Copra	24	1 063	1	1 086
Palmkernel	32	1 069		1 101
Lin	168	524	14	678
Maize	183	2 283		2 466
Others	175	989	11	1 153
TOTAL	16 068	17 868	1 829	32 107
Marine products				
Fish oil	140	501	60	581
Fish meal	497	814	360	951

(¹) Excluding olive oil.

(²) Crude and other than crude, including hydrogenated oils and fats; in vegetable oil imports* other than olive oil, crude oils represent roughly 90% against 10% for the other than crude and, for exports, the respective figures are roughly 65% against 35%.

(³) The balance from which stock variations are omitted gives a fairly accurate picture of the consumption situation in the edible foodstuff sector as well as in the other sectors.

Source: FEDIOL.

crushing.

Consumption

The share of the EC consumption of crude oil and protein meal produced by domestic industry is roughly 75% for crude oils and fats and 50% for protein meals.

The domestic production of processed oils and fats covers 100% of the EC consumption.

Oils and fats are used, in decreasing order:

- ❖ for human consumption, roughly 75%
- ❖ for compound foodstuffs, roughly 12.5%
- ❖ for technical purposes, in the manufacturing of paint, varnish, soap, etc. roughly 12.5%.

Protein meal and cakes are used only for animal consumption, either directly or indirectly in compound foodstuffs.

In view of the variety of raw materials processed and the geographic location of the industrial facilities, the industry is able to maintain regular supplies as well as to cope with sharp rises or falls in demand for oil and protein meal.

In order to meet this fluctuating demand, the oils and fats industry has large capacities, which can exceed the yearly average demand for oil or protein meal.

In recent years, a greater increase in demand for protein meal rather than for oil and fat consumption has resulted in exports of soya bean oil and rapeseed oil.

Trade

The industry is highly competitive and efficient. It is also advantageously placed with regard to both its supply of raw materials (it is not totally dependent on any

single source) and consumer markets,

be it in respect of oils or protein meals.

It is characterised by efficient technology and considerable know-how, as well as dynamic trade and quality policies, which are focused on domestic and external markets. But, despite its efficiency, the EC oils and fats industry is experiencing increasing hardship.

Firstly, the EC industry has to cope with the trade barriers of the third countries. Custom duties of foreign countries range from 0% to 15%.

On the contrary European imports of oil and protein meals are duty free, and in the EC market prices of products derived from oilseed are those of the world market. The EC crushing industry depends from external sources for the 50-60% of the vol-

ume of the seeds processed, either to industrialised nations for soya beans, sunflower seeds, linseeds and occasionally rapeseed, or to developing countries for groundnuts, copra, palm kernel, castor beans, etc..

Moreover, substantial quantities of oils and fats are imported, partly in competition with home production (as linseed oil or fish oil) because some oils like palm kernel oil and coconut oil cannot be produced in the EC.

A growing tendency in developing countries, which originally were exporters of raw material, to produce oil themselves for local consumption and exports alike, has caused a falling in prices of oils and protein meals.

In fact the market import of seeds from developing countries fell from about 33% in 1956 to 3.3% in 1987, while the imports share for oils and fats reached a level of 96% in 1987 (including olive oil).

This type of policy is mainly carried out by Argentina and Brazil in the soya, sunflower, groundnut and flax sectors, and by the Philippines and Malaysia in the copra and palm kernel sectors.

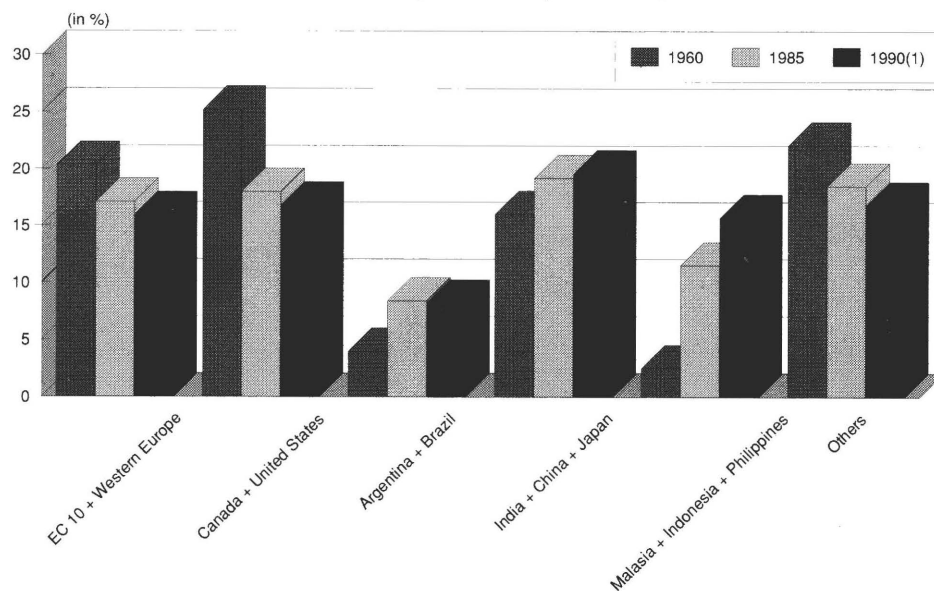
Not only does the developing countries' policy push exports of processed product affect oil seeds in relation to oil and meal, but it also affects crude oil in relation to processed oils.

This is the case in Malaysia, where the export of crude palm oil has been replaced by that of processed palm oil. Globally this results in a change in the shares of world oil production (see figure 1).

Outlook

The consumption of oils and meals in the EC shows great stability if not a decreasing trend, in the case of protein meals.

Figure 1
Vegetable and animal oils fats
Shares of the world oil production by main area, 1960-1990



(1) Estimated
Source: Oil World

The demand for edible oils and fats seems to have reached a stable level, at least percapita.

The drop in household consumption has been compensated by an increase in intermediate consumption.

As a result, consumption is evolving in accordance with the population growth, which is relatively stable.

As far as animal feed consumption is concerned, no increase is foreseeable. Animal feed consumption depends on the demand for meat, dairy and poultry products.

On the other hand, oilseed products have to compete with other foodstuffs like corn-glutenfeed, peas and beans, green fodder, etc.. In the context of stability of consumption, the future of the EC industry will be directly affected by:

- policies practised in the various geographic oilseed production and processing areas. In particular the EC industry has to cope with the increasing competition of Eastern Europe countries (USSR, Poland, etc.) and of developing countries

such as Argentina, Brazil, Malaysia, Indonesia and the Philippines, which have well-defined production targets and changing export policies;

- the rationalization of the domestic industry, that can affect the competitiveness at three levels: production (scale economies and productivity), marketing and development of new products fitting the changes in consumer preferences.

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The EC is a net exporter of olive oil. Its production and consumption are highly concentrated in the mediterranean Member States.

Description of the sector

Olive oil is produced in two ways, according to the quality of the raw material.

The first production technique consists of simply crushing the fruit, which is known as olive pressing, then filtering the product obtained. High-quality olives are necessary for this technique and the olive oil obtained, virgin olive oil, is accordingly of very high quality.

With a low acidity and a pleasant flavour, it is biologically the best vegetable oil. Subsequent reprocessing of the final by-product after the crushing operation produces olive pomace oil, and this by-product still contains a little oil.

This is extracted by using the solvent hexane. Refining the resulting raw oil yields neutral pomace oil, which, blended with virgin oil, yields olive pomace oil.

Since it is difficult to obtain high-quality raw material, a second industrial production technique is used.

It consists of crushing, refining and if necessary, blending oils of different origins.

Refining is the traditional processing technique for liquid oils and involves neutralisation, decolorisation, deodorisation and demargarination.

This process yields neutral oil as well as fatty acids.

Neutral oil has the same biological qualities as virgin oil except for the flavour and is thus blended with a greater or lesser percentage of virgin oil before being put on the market.

These two production techniques explain the differences in price between virgin and non-virgin oils.

The use of industrial techniques is due to the fact that olive plantations are scattered throughout the country. Alternatives to this technique would involve:

- ❖ delaying delivery of olives to the few large factories (in this case, the oil quality decreases in relation to storage time);
- ❖ increasing the number of small installations close to olive plantations (in this case, competitiveness sharply drops and oil production costs increase).

One possible solution is represented by the construction of warehouses specially adapted to store olives. Current techniques are not entirely satisfactory in that they do not eliminate parasite attacks.

Regulatory environment

Community regulations are designed to:

- ❖ give producers a guaranteed income (production subsidies);
- ❖ underpin the Community market (intervention price);
- ❖ facilitate the marketing of the product within the EC (consumption grants);
- ❖ assist exports (export compensation).

Problems in the near future may derive from the end of the "stand still" period for Spain and Portugal. Starting from January 1, 1991 Spain and Portugal must remove the existing limits to the intra EC seed oil trade. As a consequence seed oil prices will fall, in particular in Spain, causing a reduction of the olive oil consumption.

Table 1
Olive oil
Main Indicators, 1987-90

(thousand tonnes)	EC			Third countries			World		
	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90
Production (1)									
Olive oil	1 729	1 164	1 330	282	349	311	2 011	1 513	1 641
Edible olive marc oil	150	94	110	6	4	4	156	102	114
Total	1 879	1 258	1 440	288	353	315	2 167	1 615	1 755
Consumption (1)									
Olive oil	1 372	1 317	1 312	439	440	413	1 811	1 757	1 725
Edible olive marc oil	98	102	103	53	59	49	151	161	152
Total	1 470	1 419	1 415	492	499	462	1 962	1 918	1 877

(1) 1987/90 provisional figures
Source: FEDOLIVE

Production

Production of olive oil depends greatly on weather conditions. Table 1 shows the sharp decrease in olive oil production which took place in the EC in the winter season 1988-89 due to an exceptionally cold winter.

Hundreds of thousands of olive trees were irreparably damaged by the frost. Since 1989 production has started to recover; however, the actual production volume is still 23% below the level of 1987.

Consumption

Consumption of olive oil is highly concentrated in the producer countries and it has also been affected by the decrease in production in 1988, though on a minor scale (see table 1). Spanish consumers are accustomed to blends of refined and virgin oil.

The Greeks and the French mainly consume virgin olive oil. Italian consumers are equally divided between virgin oils and oil blended either with refined olive oil or olive pomace oil.

Trade

The EC is a net exporter of olive oil. During the period 1987-90 exports have been quite stable at a level of around 170 thousands tonnes. Imports from extra-EC countries decreased in 1989, but provisional figures for 1990 indicate a recovery at a level of about 55 thousand tonnes, i.e. the same volume of 1988.

Industry structure

The Community has under cultivation 5.3 million ha of olives, corresponding to 544 million olive trees (4% of the area of the Community). Over 2 million farmers,

broken down as follows by country, rely on olive cultivation for at least part of their income; about 900 000 in Italy, 550 000 in Spain, 350 000 in Greece, 200 000 in Portugal and 45 000 in France.

Production structures differ widely between countries.

In Italy and Greece, olives are usually cultivated in regions where no other crops are possible and where the disappearance of olive cultivation would mean not only social but also ecological decline.

The situation in Spain is quite different. Olives are cultivated over vast areas; they are harvested in bulk, and crushed in large-scale oil mills, which usually belong to cooperatives.

The oil obtained is generally refined on the same site.

The Spanish olive oil industry, over 70%

Table 2
Production of olive oil, 1987-90

(thousand tonnes)	1987/88			1988/89			1989/90(1)		
	Olive oil	Edible olive marc oil	Total	Olive oil	Edible olive marc oil	Total	Olive oil	Edible olive marc oil	Total
EC	1 729.0	150.1	1 879.1	1 164.0	93.5	1 257.5	1 329.9	109.8	1 439.7
Hellas	287.0	34.7	321.7	308.0	25.0	333.0	300.0	27.0	327.0
España	733.5	58.7	792.2	399.0	32.0	431.5	498.9	39.9	538.5
France	3.5	0.2	3.7	1.0	0.0	1.0	1.5	0.0	1.5
Italia	670.0	53.0	723.0	430.0	34.5	464.5	493.0	39.4	532.4
Portugal	35.0	3.5	38.5	26.0	2.0	28.0	36.5	3.5	40.0

(1) Provisional figures
Source: FEDOLIVE

of which is situated in the south of the country, has recently undergone far-reaching restructuring and considerable efforts have been made to improve profitability. Portugal and France are relatively problem-free compared to other producer countries. Recently, some big multinational food firms entered the olive oil industry, which may lead to developments in marketing and entry into new markets (US, Australia, Japan).

Table 3
Olive oils and edible olive marc oil, 1988-89

(thousand tonnes)	Virgin and refined	Edible olive marc oil	Total
Stocks 1.11.88	599	62	661
Production	1 164	94	1 258
Imports extra-EC	41		41
Total supply	1 804	156	1 960
Consumption	1 317	103	1 419
Exports extra-EC	140	30	170
Stocks 31.10.89	347	28	371

(*) Provisional figures.
Source: FEDOLIVE

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Revised by Prometeia Calcolo Srl

The margarine industry forms an important part of the EC oils and fats industry.

It is composed of some 109 companies employing approximately 25 000 people and produces almost 25% of the world margarine output. A substantial part of the oil used for manufacturing margarine is obtained from Community-grown oilseeds. The largest producers are the Federal Republic of Germany, the United Kingdom and the Netherlands.

The highest consumption per capita is in Denmark, the Netherlands and Belgium. Besides margarines, the industry is also engaged in the production of minarines and spreads. In the last few years the industry has undergone an important period of restructuring during which the numbers of both companies and employees have been reduced.

Description of the sector

The principal product of the industry is margarine for consumers and professional use. Even though the definition of margarine varies from country to country, margarine can, in general, be defined as an emulsion of oil in water consisting of at least 80% fat, of which not more than 3% is butter fat. However, these percentages may vary: whereas in the United Kingdom and France, margarine can contain up to 10% butter fat, in Spain it can contain up

to 50%. The second most important product is minarine, which differs from margarine in its fat content: it contains between 39% and 41% fat. Production of minarine is not allowed in some EC countries, for example Italy.

In some EC countries, principally the United Kingdom and Ireland, the industry is also involved in the production of spreads and products which are mixtures of butter fat and non-butter fat in varying percentages.

Table 1
Margarine
Main Indicators, 1980-89

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Apparent consumption (1)	1 704	1 737	1 759	1 739	1 728	1 732	1 737	1 724	1 729	N/A
Net exports (1)	35	37	39	35	45	42	33	40	35	43
Production	1 739	1 774	1 798	1 774	1 773	1 774	1 770	1 764	1 764	1 807(2)

(1) 1980 EC 9; 1981-83 EC 10.

(2) Estimated based on Eurostat data

Source: IMACE, Eurostat (Comext).

Current situation

In 1989 the industry produced about 1 800 million tonnes of margarine, including minarine and spreads. This represents almost 25% of total world margarine production. The highest production was in the FR of Germany (479 000 tons), followed by the United Kingdom, the Netherlands, Belgium and France. The EC margarine production was quite stable in the 1980s. In some Member States such as Belgium, Greece, Spain and Portugal, however, production has followed an upward trend since the beginning of the 1980s.

Consumption

The average consumption of margarine per capita in the EC was about 6.1 kg in 1988. For the EC as a whole, per capita consumption decreased from 6.3 kg in 1982 to 6.1 kg in 1988. Denmark has the highest per capita consumption (15.6 kg in 1988) followed by Belgium (13.7 kg) and

the Netherlands (10.0 kg).

Consumption of so-called solid fats is traditionally very low in the Mediterranean countries: margarine consumption in Italy and Spain was 1.3 kg per capita in 1988.

Industry structure

There were 114 plants in the European margarine industry in January 1989: 7 in Belgium, 14 in Denmark, 18 in the FR of Germany, 13 in Spain, 6 in France, 5 in Greece, 4 in Ireland, 19 in Italy, 12 in the Netherlands, 6 in Portugal and 10 in the United Kingdom. The plant size was quite variable, going from the 37 500 tons per plant in UK, to the 3 700 in Italy.

Trade

At present, trade in margarine within the Community covers less than 15% of total production. Trade between Member States is mainly going from Belgium (66 000 tonnes in 1987) and the Netherlands (85 100 tonnes) to the United King-

dom and France. Trade in margarines and minarines between Member States has been gradually increasing in recent years: from well below 10% at the end of the 1970s, it has now risen to almost 15% of total production. Net exports are very low, at a level of about 40 000 tonnes.

Regulatory environment

National legislation concerning margarine has still not been harmonized at EC level. There are different VAT rates for margarine and butter in some EC countries. For example, margarine rates are much higher in Belgium (19% as compared to 6% for butter) and in France (18.6% as compared to 5.5% for butter). In some countries (Belgium and France) margarine must be clearly separated from butter in display, while in others (Italy, Greece) there are limitations affecting distribution channels.

Table 2
Margarine and minarine production, 1980-89

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	1 740	1 774	1 798	1 774	1 773	1 774	1 766	1 764	1 764	1 807(1)
Belgique/België, Luxembourg	158	150	161	159	169	172	171	184	183	186
Danmark	98	103	110	103	110	107	99	99	103	105
BR Deutschland	511	518	516	500	483	466	470	470	472	479
Hellas	13	13	13	24	24	24	27	27	27	27
España	46	47	47	54	57	59	64	67	68	69
France	165	165	166	162	154	154	153	153	160	162
Ireland	16	18	18	16	16	17	17	18	19	23
Italia	69	72	72	68	64	65	65	68	72	73
Nederland	243	247	254	254	265	282	264	232	226	255
Portugal	38	43	42	47	50	51	52	55	59	60
United Kingdom	383	398	399	387	381	377	384	391	375	368

(1) Estimated based on Eurostat data

Source: IMACE

Table 3
Per capita consumption of margarine

(kilogrammes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC	6.0	6.1	6.3	6.2	6.3	6.3	6.1	6.1	6.1
Belgique/België, Luxembourg	11.8	11.8	12.6	12.9	13.6	13.8	13.7	13.8	13.7
Danmark	16.8	17.2	18.3	16.9	16.8	16.3	15.0	15.0	15.6
BR Deutschland	8.4	8.4	8.4	8.3	7.9	7.6	7.7	7.7	7.7
Hellas (*)	2.3	2.3	2.4	2.5	2.6	2.6	2.8	2.9	2.9
España	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3
France	3.7	3.7	3.8	3.8	3.8	3.7	3.7	3.7	3.8
Ireland	3.7	3.7	3.7	3.7	3.7	3.7	3.9	4.1	4.3
Italia	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2
Nederland	12.6	12.3	12.0	12.0	11.8	12.5	11.7	10.3	10.0
Portugal	4.6	4.9	5.2	5.4	5.7	5.8	5.9	6.2	6.6
United Kingdom	7.0	7.4	7.5	7.4	7.4	7.3	7.4	7.5	7.2

(*) Estimated
Source: IMACE

Imace: Association of the Margarine Industry of

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The most important event characterising the meat sector in 1989 was the world-wide reduction (by about 1 %) in the supply of beef meat together with a decrease in the consumption and a rise of the international price of beef.

For the first time after many years in the European Community, consumption of beef and veal exceeded production, leading to a significant reduction of stocks. World-wide production and consumption of pork meat increased by 3%.

Description of the sector

The slaughter and meat processing industry includes five subsectors:

- ❖ slaughter-houses (NACE 412.1);
- ❖ processing and preserving of meat (NACE 412.2);
- ❖ killing, preparing and preserving of poultry (NACE 412.3);
- ❖ processing of slaughter by-products (NACE 412.4);
- ❖ production of animal guts and meat offal (NACE 412.5).

Consumption

Since 1986 the value of the Community apparent consumption of meat has increased by 13.7%, displaying a very modest growth in 1987 (0.3%), a more remarkable increase in the following year (6.9%) and a considerable expansion in 1989 (9.3%), when apparent consumption amounted to 65.9 billion ECU.

Over the period 1986-88, the volume of meat consumption in the EC12 increased by 4.7% reaching 30 201 thousand tonnes in 1988, whereas per capita consumption of meat in the Community increased by

3.5% reaching 92.5 kg per head in 1988.

This positive trend was common to all the European countries except for Belgium, Greece and France where per capita consumption of meat fell by 2.6%, 2.3% and 3.5% respectively during the period 1986-88.

The major European consumer countries are Germany, France, Italy and the UK, accounting respectively for 21.1%, 20.1%, 16.4% and 14.9% of the Community total volume of meat consumption in 1988.

Within the Community there are remarkable differences among countries with respect to per capita consumption of meat, whose level varied from 104 kg in Denmark and Germany to 65.4 Kg in Portugal in 1988.

A breakdown by product of the overall European demand for meat is provided below. The following three categories are considered: pigmeat, beef and veal, lamb mutton and goat. The poultry meat sector will be analysed in detail in one of the following chapters.

Table 1
Slaughter, and preparation of meat
Main indicators, 1980-90 (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 (1)
Apparent consumption	32 235	34 623	37 530	41 713	48 311	50 363	56 170	56 317	60 236	65 853	68 754
Net exports (2)	- 963	- 374	- 1 327	- 872	- 270	- 732	- 355	- 194	- 644	- 312	- 609
Production	31 272	34 249	36 203	40 841	48 041	49 631	55 815	56 123	59 592	65 541	68 145
Employment (number)(3)	316 419	305 672	308 049	323 310	342 831	339 929	400 083	409 074	415 328	421 477	N/A

(1) 1980 ECS; 1981-85 EC10.
(2) 1988 excluding Greece
(3) 1980-81 Italy estimated; 1981-82 the Netherlands estimated
(*) Estimated on the basis of Eurostat data
Source: Eurostat (Inde, Comext)

Pork meat Demand for pork meat is by far the strongest, amounting to 12 735 thousand tonnes in 1989. In comparison to the previous year, in 1989 the consumption volume of pigmeat decreased by 0.9%. Among the Member States, Germany accounts for the largest market with 30% of the total Community demand for pigmeat and one of the highest levels of per capita consumption (62.6 kg in 1988 when the average European per capita consumption of pork meat was 39.2 kg). The Community is the second largest consumer of pork meat, after China (18 190 thousand tonnes in 1989) and before the USA (7 647 thousand tonnes in 1989).

Beef and veal In 1989, for the first time after 1978, the Community consumption of beef and veal exceeded production. This was the result of a fall in production occurring in the previous year and supported by a modest rise in consumption (0.7%) which reached 7 675 thousand tonnes. Within the Community, France is the largest consumer (23% of the EC12 consumption volume of beef and veal in 1988), followed by Italy (20.3%) and Germany (19%).

Lamb, mutton and goat Demand for lamb, mutton and goat meat amounted to 1 321 thousand tonnes in the Community in 1989, thus proving by 5% higher than in

1988. Among the Member States, the most important consumer of lamb meat is the UK (30% of the Community demand level in 1988), followed by France (21.1%) and Spain (19.9), even though Greece had the highest per capita consumption, 13.96 kg in 1988 when the average European level of consumption per head was 3.65 kg. The Community is the most important consumer of lamb meat, followed by the USSR (949 thousand tonnes in 1989) and China (880 thousand tonnes).

Production

Since 1986 the current value of production in the sector under consideration has increased by 13.9%, displaying a modest

Table 2
Slaughter, and preparation of meat
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Production at current prices											
EC Index	33 132.0	36 088.0	40 298.0	44 529.0	52 298.0	54 109.0	55 815.0	56 123.0	59 592.0	65 541.0	68 145.0
	59.1	64.3	71.8	79.4	93.2	100.0	99.5	100.0	106.2	116.8	121.5
USA (1) Index	45 216.0	59 035.0	69 002.0	74 579.0	86 914.0	87 982.0	70 382.0	87 772.0	95 203.0	83 713.0	N/A
	51.4	67.1	78.4	84.8	98.8	100.0	80.0	99.8	108.2	95.2	N/A
EC											
Production at constant prices											
Index	43 194.0	42 855.0	43 289.0	47 495.0	53 674.0	56 106.0	56 822.0	58 551.0	62 884.0	63 919.0	N/A
	77.0	76.4	77.2	84.7	95.7	100.0	101.3	104.4	112.1	113.9	N/A
Value added at current prices (2)											
Index	5 700.0	5 986.0	6 821.0	7 685.0	8 614.0	8 978.0	9 765.0	10 402.0	11 338.0	12 466.0	N/A
	63.5	66.7	76.0	85.6	96.0	100.0	108.8	115.9	126.3	138.9	N/A
Productivity Index											
	19.9	19.7	20.2	21.9	22.4	22.9	25.0	26.7	26.6	26.7	N/A
	86.9	85.9	88.2	95.6	97.6	100.0	109.1	116.4	116.3	116.5	N/A
Investment at current prices (3)											
Index	684.0	750.0	713.0	808.0	1 054.0	1 056.0	1 193.0	1 374.0	N/A	N/A	N/A
	64.8	71.0	67.5	76.5	99.8	100.0	113.0	130.1	N/A	N/A	N/A

(1) Census of manufactures and Eurostat estimates
(2) Ireland and Portugal estimated; 1980-81 estimated for Italy; 1985, 1988-89 estimated for the Netherlands.
(3) Excluding Spain, Portugal and Belgium; 1984-87 excluding Greece
Source: Eurostat (Inde)

Table 3
Slaughter, and preparation of meat
Total meat production (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
EC	35 041	38 131	40 298	44 529	52 298	54 109	55 815	56 123	59 592	65 541	68 145
Belgique/België	905	1 021	1 019	955	1 027	1 130	1 200	1 183	1 241	1 379	1 437
Danmark	2 585	2 953	3 343	3 518	3 947	4 086	4 076	3 912	3 918	4 129	4 302
BR Deutschland	6 024	6 181	6 986	7 200	7 827	7 931	8 298	8 226	8 194	9 320	9 675
Hellas	108	137	160	164	161	169	160	156	166	185	193
España	3 500	3 705	3 891	3 463	4 002	4 144	4 258	4 402	4 855	5 381	5 607
France	8 591	9 805	10 883	11 989	13 472	14 468	15 276	15 443	16 651	19 422	20 237
Ireland	1 244	1 212	1 377	1 461	1 723	1 984	1 948	1 991	2 039	2 139	2 229
Italia	4 686	5 066	1 377	6 120	6 501	6 231	7 419	7 286	7 336	7 957	8 402
Luxembourg	36	40	42	43	44	48	45	48	49	51	53
Nederland	2 793	3 234	3 576	3 711	4 104	4 230	4 543	4 586	5 095	5 301	5 400
Portugal	161	177	204	225	255	331	315	344	412	438	456
United Kingdom	4 408	4 600	5 440	5 680	9 235	9 357	8 277	8 546	9 636	9 839	10 154

(1) Estimated
Source: Eurostat (Inde)

growth in 1987 (+0.6%), followed by an appreciable increase in 1988 (2.6%) and a subsequent expansion in 1989 (10.3%) when the EC12 value of meat production amounted to 65.5 billion ECU.

Within the Community, the main producing countries are France (accounting for 29.6% of the EC value of production in 1989), the UK (15.0%), Germany (14.2%) and Italy (12.2%).

Over the period 1986-89, all these countries experienced an increase in the value of their meat production, although the size and rate of this growth were different in the various countries: France enjoyed the most remarkable expansion, (+27.1%) over

the period 1986-89, followed by the UK (+18.9%), Germany (+12.3%) and Italy (+7.3%).

Porkmeat The EC12 volume of supply of pork meat has increased by 8.4% since 1986, even if it displayed a modest fall (-1.9%) in 1989 when it amounted to 13 047 thousand tonnes. Within the Community the most important countries producing pork meat are Germany (accounting for 24.2% of the EC12 supply in 1989), France (14.2%), Spain (13.1%) and Netherlands (12.3%).

All these countries experienced a decline in their production levels in the last year, although the reduction was more signifi-

cant in Germany than elsewhere.

The Community is the second largest producer of pork meat after China (18 400 thousand tonnes in 1989) and before the USA (7 276 thousand tonnes in 1989) and the USSR (6 600 thousand tonnes). All these countries experienced an increase in their production levels in 1989.

Beef and veal In 1989 the Community supply volume of beef and veal meat amounted to 7 462 thousand tonnes. Since 1986 beef production has decreased by -7.5%, this reduction mainly concerning the years 1988 (-5.5%) and 1989 (-2.9%). Among the reasons for last year decline in

Table 4
Slaughter, and preparation of meat
Production of pork

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (1)	9 960.0	10 093.6	10 064.4	11 909.8	12 068.6	12 134.8	12 364.5	12 771.6	13 293.2	13 047.1
Belgique/België	660.9	671.9	672.1	697.5	719.1	708.9	740.3	782.1	807.1	824.6
Danmark	966.4	987.0	985.5	1 043.0	1 034.4	1 083.3	1 144.1	1 148.8	1 167.6	1 163.4
BR Deutschland	3 206.1	3 171.2	3 140.2	3 210.9	3 221.9	3 242.5	3 335.5	3 351.2	3 341.9	3 161.1
Hellas	144.0	154.1	154.2	149.1	148.6	141.9	152.9	163.8	159.8	151.2
España	N/A	N/A	N/A	1 342.0	1 429.0	1 388.0	1 392.2	1 481.3	1 713.0	1 703.6
France	1 682.6	1 720.1	1 674.5	1 675.8	1 684.1	1 661.6	1 676.9	1 729.0	1 852.0	1 845.7
Ireland	153.4	149.9	153.3	160.9	143.6	135.6	137.1	140.8	143.7	138.8
Italia	1 085.5	1 105.8	1 108.1	1 166.0	1 218.1	1 188.2	1 172.2	1 230.6	1 269.1	1 295.3
Luxembourg	8.0	8.0	8.2	9.3	8.6	8.6	9.0	8.5	8.7	8.2
Nederland	1 125.6	1 195.1	1 211.2	1 248.3	1 306.3	1 410.8	1 444.4	1 527.6	1 631.5	1 606.2
Portugal	N/A	N/A	N/A	200.0	208.0	197.0	170.6	189.6	182.6	209.6
United Kingdom	927.5	930.5	957.1	1 007.0	946.9	967.8	989.3	1 018.4	1 016.3	939.4

(1) 1980-82 EC10
Source: Eurostat (Zpa1)



Table 5
Pork
Production and external trade (1)

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production	9 816.0	10 094.0	10 064.0	11 910.0	12 069.0	12 135.0	12 365.0	12 771.0	13 273.0	13 047
Index (2)	94.4	95.6	95.3	98.1	99.4	100.0	101.9	105.1	109.4	107.5
Imports extra-EC	127.0	109.0	118.0	98.0	148.0	174.0	112.0	113.0	63.0	98
Index (2)	102.3	82.8	89.7	56.3	85.1	100.0	64.4	64.9	36.2	56.3
Exports extra-EC	238.0	303.0	242.0	142.0	412.0	427.0	404.0	432.0	520.0	324
Index (2)	59.5	75.9	60.4	33.3	96.5	100.0	94.6	101.2	121.8	75.8
X/M	1.9	2.8	2.1	1.4	2.8	2.5	3.4	3.8	8.3	3.3

(1) 1980 EC9; 1981-82 EC10

(2) Taking into account changes in EC membership

Source: Eurostat (Zpa1)

Table 6
Production of beef and veal

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (1)	7 089.4	6 939.1	6 662.4	7 458.9	8 008.2	7 924.6	8 064.4	8 132.8	7 683.1	7 462.0
Belgique/België	302.4	309.5	274.1	282.0	309.6	316.8	316.5	316.7	309.0	297.7
Danmark	243.9	237.0	230.3	239.4	246.7	236.5	243.1	234.6	216.7	204.4
BR Deutschland	1 570.0	1 537.8	1 477.2	1 494.3	1 613.5	1 575.7	1 695.7	1 680.5	1 608.3	1 576.4
Hellas	N/A	93.9	89.8	85.9	84.8	82.0	81.7	85.6	81.8	81.2
España	N/A	N/A	N/A	422.0	398.0	401.0	434.8	444.5	444.9	449.6
France	1 837.6	1 836.2	1 745.4	1 811.0	1 991.7	1 893.2	1 910.8	1 960.1	1 825.9	1 673.3
Ireland	453.9	322.1	347.5	353.2	402.5	449.2	510.6	484.6	451.9	430.6
Italia	1 146.1	1 111.0	1 101.5	1 147.2	1 181.9	1 200.5	1 175.9	1 174.4	1 164.4	1 146.9
Luxembourg	8.3	8.2	7.5	8.9	9.6	9.3	9.8	9.3	7.6	6.9
Nederland	418.6	437.4	420.2	450.3	514.8	510.9	539.4	546.5	506.5	485.6
Portugal	N/A	N/A	N/A	113.0	103.0	103.0	104.5	106.9	110.4	128.6
United Kingdom	1 108.6	1 046.0	965.9	1 051.7	1 152.1	1 146.5	1 046.2	1 095.0	945.5	980.8

(1) 1980 EC9; 1981-82 EC10

Source: Eurostat (Zpa1)

Table 7
Beef and veal
Production and external trade (1)

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production	7 089.0	6 939.0	6 662.0	7 549.0	8 008.0	7 925.0	8 064.0	8 133.0	7 683.0	7 462
Index (2)	98.9	95.5	91.7	94.1	101.0	100.0	101.8	102.6	97.0	94.2
Imports extra-EC	408.0	371.0	387.0	454.0	421.0	491.0	433.0	446.0	429.0	441.0
Index (2)	105.1	80.7	84.1	92.5	85.7	100.0	88.2	90.8	87.4	89.9
Exports extra-EC	621.0	581.0	417.0	658.0	767.0	823.0	1 184.0	924.0	876.0	780.0
Index (2)	76.8	71.8	51.5	80.0	93.2	100.0	143.9	112.3	106.4	94.8
X/M	1.5	1.6	1.1	1.4	1.8	1.7	2.7	2.1	2.0	1.8

(1) 1980 EC9; 1981-82 EC10

(2) Taking into account changes in EC membership

Source: Eurostat (Zpa1)

Table 8
Production of lamb, mutton and goat meat

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (1)	629.0	725.0	731.0	954.6	985.0	1003.9	960.8	1021.2	1042.0	1095.9
Belgique/België (2)	4.7	5.7	7.5	8.5	5.2	8.2	9.0	10.8	8.7	9.6
Danmark	0.4	0.4	0.4	0.4	0.6	0.8	0.8	1.0	1.1	1.3
BR Deutschland	29.6	27.7	27.3	29.4	28.4	27.2	25.5	29.4	29.1	26.0
Hellas	N/A	120.8	120.0	121.1	130.1	122.4	106.5	124.5	125.1	130.9
España	N/A	N/A	N/A	202.0	207.0	210.0	210.2	223.9	229.9	217.8
France	182.0	182.6	192.8	182.9	178.8	177.6	169.1	169.8	164.4	158.0
Ireland	42.0	44.0	40.5	39.8	41.0	48.2	46.2	47.6	48.8	61.1
Italia	70.8	68.7	67.7	67.4	70.4	69.7	66.4	71.7	72.9	79.1
Nederland	20.5	16.1	12.7	11.2	9.5	10.7	10.9	12.8	12.5	14.3
Portugal	N/A	N/A	N/A	27.0	26.0	25.0	25.0	27.0	28.0	31.0
United Kingdom (2)	278.6	259.0	262.1	286.8	288.0	304.1	291.2	302.7	321.8	366.8

(1) 1980 EC9; 1981-82 EC10
(2) Estimated
Source: Eurostat (Zpa1)

Table 9
Lamb, mutton and goat meat
Production and external trade (1)

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production	629	725	731	955	985	1004	961	1021	1042	1096
Index (2)	98.9	95	95.8	95.1	98.1	100	95.7	101.1	103.8	109
Imports extra-EC	222	204	283	215	209	233	208	225	212	258
Index (2)	100.9	88	121.9	92.3	89.7	100	89.3	96.6	91	110.7
Exports extra-EC	6	6	5	10	6	6	3	12	16	7
Index (2)	116.7	116.7	100	166.7	100	100	50	200	266.7	116.6
X/M	0.03	0.03	0.02	0.05	0.03	0.03	0.01	0.05	0.08	0.03

(1) 1980 EC9; 1981-82 EC10
(2) Taking into account changes in EC membership
Source: Eurostat (Zpa1), UEEA

Table 10
Slaughter, and preparation of meat
EC-Trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(2)
Exports extra-EC	1816	2479	2172	2498	3194	3322	3052	3049	3173	3638	3 538
Index (1)	55.2	74.6	65.4	75.1	96.2	100.0	91.9	91.8	95.5	109.5	106.5
Imports extra-EC	2716	3000	3514	3333	3682	3922	3398	3229	4003	4344	4 146
Index (1)	70.4	76.5	89.6	85.0	93.9	100.0	86.6	82.3	102.1	110.8	105.7
X/M	0.67	0.83	0.62	0.75	0.87	0.85	0.90	0.94	0.79	0.84	0.85
Trade intra-EC	7045	8008	9234	9594	10008	10970	11247	11345	11954	13463	N/A
Index (1)	64.2	73.0	84.2	87.5	91.2	100.0	102.5	103.4	109.0	122.7	N/A
Share of total (%)	79.4	76.7	81.0	79.3	76.2	76.5	78.7	78.8	78.8	78.7	N/A

(1) Taking into account changes in EC-membership.
(2) Estimated
Source: Eurostat (Bise)

Table 11
Slaughter, and preparation of meat
Employment (')

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC	384 349	373 932	363 659	375 179	394 527	390 132	400 083	409 074	418 524	424 648
Belgique/België	7 768	7 605	7 403	6 985	7 119	6 836	7 319	6 940	6 939	6 944
Danmark	21 016	21 414	21 391	21 571	22 287	25 272	25 941	25 426	24 235	23 416
BR Deutschland	58 457	56 771	54 294	52 527	53 008	52 279	53 069	54 012	54 405	54 378
Hellas	2 524	2 401	2 373	2 400	2 508	2 391	2 398	2 447	2 467	2 465
España	49 663	48 852	47 409	47 004	46 433	46 117	46 835	47 796	48 174	48 150
France	85 538	85 425	89 579	94 206	94 894	93 452	94 576	96 120	96 229	96 901
Irland	10 634	9 693	9 629	9 298	9 682	9 305	8 791	8 937	8 780	8 609
Italia	33 374	32 087	21 621	34 255	35 492	32 861	35 621	37 267	36 362	36 344
Luxembourg	393	458	445	464	476	479	458	448	428	444
Nederland	21 035	20 551	19 899	17 480	17 761	17 522	18 468	17 935	21 074	21 030
Portugal	4 758	5 080	5 101	4 865	5 416	5 493	5 364	5 896	5 751	5 748
United Kingdom	89 189	83 595	84 515	84 124	99 757	98 553	101 243	105 850	113 680	120 219

(') Estimated
Source: Eurostat (Inde)

production is a rise in the international price of bovine and a fall in the price of forage which together led to an expansion of livestock.

Within the Community, the main producing countries are France (accounting for 22.4% of the EC12 volume of supply in 1989), followed by Germany (21.1%), Italy (15.4%) and the UK(13.1%).

In 1989 all these countries, except the UK, experienced a reduction of their production volumes, the size and rate of this contraction proving larger in France (8.4%) than in Germany (2%) and Italy (1.5%).

Lamb, mutton and goat meat

In 1989 the Community supply volume of lamb, mutton and goat amounted to 1 096 thousand tonnes, 5% more than in 1988. Within the Community the main producing countries are the UK, followed by Spain and France.

In 1989, supply levels increased in the UK (14%) and Greece (4.6%), whereas production fell in Spain (-5.3%).

The Community is the main producer of lamb meat, followed by The USSR (915 thousand tonnes in 1989) and China (880 thousand tonnes).

Trade

In 1989, the Community external trade deficit reached 706 million ECU, less than in the previous year but much higher than that in 1986 and 1987 when the deficit amounted to 346 and 180 million ECU respectively.

The 1989 improvement in the trade balance was mainly due to a larger expansion of the value of external exports (+465 million ECU) rather than to the value of imports (+341).

The value of intra-EC trade flows is quite significant, amounting to 13.5 billion ECU in 1989. Since 1986, intra-Community trade has increased by 19.7%.

Pork meat In volume terms, in 1989 the Community exports declined by 37.6% with respect to the previous year whereas imports increased by 55.5%. In spite of that, the Community remains the first exporter followed by Canada.

Beef and veal The EC is a net exporter of beef meat. However, since 1986 the Community trade surplus has displayed a negative trend, declining from 751 thousand tonnes in 1986 to 447 thousand tonnes in 1988. Moreover, in 1989 exports further decreased by 10.9% whereas imports in-

creased by 2.8%. The rise of imports was the result of higher quotas from third countries.

In spite of the deterioration in the competitive position of trade on export markets, the Community remains the major supplier to the Near East and North Africa.

Lamb, mutton and goat The EC is a net importer of lamb meat, the volume of the trade deficit amounting to 251 thousand tonnes in 1989. The main suppliers are New Zealand, Australia, Hungary and Argentina. The largest importers within the Community are the UK, Germany and Italy.

Employment

The number of people involved in the slaughter and preparation of meat sector amounted to 424 648 in 1989.

The UK accounted for the highest number of employees, 28.3% of the Community employment level in the sector under consideration, followed by France (22.8%), Germany (12.8%), Spain (11.3%) and Italy (8.6%). Since 1986, employment in the Community has increased by 6.1%, corresponding to an increase of 24 565 units, most of which accounting for an expansion of employment in the UK (+18 976 employees over the period 1986-89).

Outlook

As far as production of pork meat is concerned, Europe is expected to perform better in 1990 than in 1989, increasing supply by 0.8%.

Consumption of pork meat is expected to keep declining in the Community, diminishing by 0.6% in 1990.

As for the other main producer and consumer countries, China and the USA, China should enjoy a rise both in production and in consumption, whereas the USA

are expected to diminish their supply of pork meat (-1.3%) as well as their demand (-1.1%).

In the European beef and veal market, production is expected to recover in 1990, rising by 1.1% whereas consumption should expand by 0.7%.

Exports will further decrease (-28.4%) whereas imports should increase by 2.5%. Moreover, it is expected that by 1994 production of beef and veal meat in the Community will reach 8 million tonnes.

Finally, as for lamb meat, the European production is expected to grow by 5.3% in 1990 whereas consumption should increase by a lower rate, 0.7%.

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In recent years the EC slaughterhouse sector has undergone a deep transformation, particularly in the main meat-producing countries.

The concentration level has increased and some small slaughterhouses have been driven out of the market.

The percentage of plants equipped in conformity with the EC standards varies greatly among the European countries, from 100% in Denmark to 2% in Greece. Over the next few years, as a result of reduction in cattle slaughtering, the competition for throughput is likely to increase, forcing margins down.

Description of the sector

The slaughterhouse sector (NACE 412.1) is part of the industry classified as slaughtering, preserving and preparing of meat (NACE 412) and consists of two subsectors: private and public slaughterhouses (NACE 412.11 and 412.12). It covers slaughtering of the following livestock classes:

- ❖ beef and veal;
- ❖ pork;
- ❖ sheep and goat.

Production

According to Eurostat estimates, in 1989 the slaughterhouse supply of meat in the EC12 amounted to 30 455 thousand tonnes. The largest producing countries were France (19.7% of the Community production in 1989), Germany (18.2%), Italy (13.5%), Spain (11.6%) and the UK (11.4%).

Over the period 1983-89 the Community

supply level increased at an average annual rate of 1.4%. In 1989 only Portugal enjoyed a significant increase in production (9.7%), while in the rest of the EC production remained unchanged or slightly decreased.

The total number of slaughterhouses in the EC amounted to 6 631 in 1989/90, 40% of which was located in Italy.

By calculating the ratios between the total meat production and the number of slaughterhouses in these countries, it emerges that Germany had the highest level of meat production per plant (16 714 tonnes), followed by France (11 416 tonnes), Spain (6 861) the UK (4 255) and Italy (1 514). In expressing plant average size in terms of number of cattle units, the ranking of these countries does not change.

A description of the main trends in the slaughtering sector of some countries is provided in Table 1.

Table 1
Abattoirs
Total meat production

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (1)	24 128	24 101	23 959	28 145	28 897	28 918	29 471	30 421	30 724	30 455
Belgique/België, Luxembourg	1 225	1 246	1 221	1 257	1 320	1 335	1 366	1 415	1 424	1 426
Danmark	1 369	1 390	1 388	1 458	1 457	1 500	1 576	1 571	1 575	1 566
BR Deutschland	5 559	5 484	5 387	5 445	5 587	5 568	5 814	5 850	5 764	5 550
Hellas	520	570	548	562	559	560	537	579	574	571
España	N/A	N/A	N/A	3 088	3 140	3 130	3 108	3 266	3 557	3 551
France	5 661	5 733	5 677	5 710	5 876	5 734	5 817	6 013	6 051	5 984
Ireland	793	639	672	690	726	782	852	830	826	803
Italia	3 764	3 741	3 771	3 883	3 962	3 938	3 892	3 998	4 070	4 120
Nederland	1 994	2 119	2 135	2 168	2 312	2 379	2 505	2 644	2 728	2 720
Portugal	N/A	N/A	N/A	568	542	525	577	630	617	677
United Kingdom	3 243	3 179	3 160	3 316	3 416	3 467	3 427	3 625	3 538	3 487

(1) 1980-82 EC10
Source: Eurostat (Zpat)

France In France between 1969 and 1989, the number of slaughterhouses dropped from 1393 to 530.

The trend towards concentration continues thus implying an increasing capacity of firms.

In France slaughtering is divided into private and public sectors.

Around 60%-70% of total slaughtering is carried out by public slaughterhouses, with the exception of the pork meat sector, 70% of which is controlled privately.

The beef and veal sector is the most significant, accounting for more than 50% of total production, followed by the pork meat sector (40%).

Federal Republic of Germany

The slaughterhouse sector in Germany, as in other countries of the Community, is characterised by considerable overcapacity, leading to tougher competition and a growing tendency towards concentration.

It has been estimated that the three largest slaughtering firms account for about 50% of the sector's total production.

In 1989 the total number of slaughterhouses in Germany was 350. Private and cooperative slaughterhouses, which represent about 45% of the sector, achieved

net sales of about 4 billion ECU.

In addition, there were about 100 communal slaughterhouses, and those for which no statistics exist as they have less than 20 employees.

In 1988 Germany exported 276 764 tonnes of fresh and frozen beef to other Member States, the main destination markets being Italy, France (each with a share of about one-third) and Greece (with a share of about 20%). Exports to third countries amounted to 155 000 tonnes. Imports of fresh/frozen beef into the Federal Republic of Germany in 1988 amounted to 225 000 tonnes, of which 165 000 were from Member States and 60 000 from third countries.

Italy The Italian slaughterhouse sector is very fragmented and characterised by a high number of small private slaughterhouses. According to estimates on ISTAT data, both the number of public and private industrial slaughterhouses decreased over the period 1982-87 from 1900 to 1600 respectively and from 770 to 750 respectively. Although data on the number of small private slaughterhouses is not available, it is estimated that this category of plants accounted for 15% of the total vol-

ume of meat processed in the sector in 1987. In these years, the share of meat processed by public slaughterhouses was 26.6% and 21% respectively whereas private industrial plants accounted for 58.4% and 63.8% of the sector supply volume.

It emerges that in Italy private industrial slaughterhouses have the largest production share and that the latter increased over the period at the expense of the public sector. It also appears that public plants are less efficient than private industrial slaughterhouses as the former, although being more numerous, account for a lower supply level.

United Kingdom The overall number of slaughterhouses in the United Kingdom is constantly decreasing.

This number fell from 1 000 in 1985/86 to 852 in 1989/90.

This process mainly concerns small slaughterhouses and it is supported by expansion and mergers of medium and large plants.

As a result of this process of concentration, the average slaughterhouse throughput continues to increase, having reached in 1989/90 a level of 15 116 cattle units, nearly twice as much as that of ten years

before.

The Netherlands Despite the economic importance of the livestock and meat sector in the Netherlands, its growth has been very low in recent years.

The strong reduction in the number of slaughtering of beef (-10.2%) and veal (-8.4%) was just offset by an increase in porkmeat production (+2.6%) and higher average slaughter weights.

About 90% of the Dutch slaughtering is of pork meat.

In 1988 about 70% of the Dutch meat production was exported, 95% of all meat exports being directed towards other EC countries: FR of Germany (31% of Dutch meat exports), Italy (22%), France (15%) and the UK (11%).

In recent years, the Netherlands have become a net importer of live cattle.

Denmark Denmark exports about 70% of its production. Trade within the EC is relevant, as the other Member States absorb about 70% of the Danish beef and veal exports and 63% of pork meat exports.

The export trade is controlled by about 30 firms but some of the large slaughterhouses and processing plant export directly.

Belgium Over the last few years, the Belgian slaughterhouse sector has undergone major modification. Implementation of Directive 83/90/EEC, an amendment to Directive 64/433/EEC relating to intra-Community exchanges of fresh meat, gave the public health veterinary the opportunity to revise all the export approvals granted to slaughterhouses.

It then emerged that, aside from a few large pigmeat slaughterhouses, all other plants needed wide restructuring, if not total reconstruction.

Table 2
Number of slaughterhouses, 1990

	All slaughterhouses			EC-approved slaughterhouses	
	Number	Total throughput (²)	Average throughput (¹)	Number	% of total
EC	6 631	115 013	17 345	1 184	18
Belgique/België	160	5 352	33 450	93	53
Danmark	48	8 976	187 000	48	100
B.R. Deutschland	350	25 455	72 729	299	85
Hellas (¹)	430	3 912	9 098	7	2
España (¹)	476	14 337	30 120	46	10
France (²)	530	17 962	33 890	311	59
Ireland	742	3 136	4 226	42	6
Italia (²)	2 640	11 243	4 259	153	4
Luxembourg	6	92	15 333	6	100
Nederland	176	7 438	42 261	105	60
Portugal (²)	221	1 994	9 023	1	0
United Kingdom	852	15 116	17 742	73	9

(¹) As at October 1988, based on estimate for number of abattoirs

(²) 1989

(³) Thousand cattle units

(⁴) Cattle units

Source: UEEA, MLC, OFIVAL, ISTAT

A plan for restructuring the whole slaughterhouse sector has been designed with the purpose of bringing the structure and equipment of Belgian slaughterhouses to a satisfactory standard by 1990.

The cost of the restructuring will exceed 200 million ECU, that is more than 2.5 million ECU on average per plant.

Ireland The beef sector is Ireland's most important industry, accounting for over 10% of the total national exports.

This explains the high number of slaughterhouses operating in this country, 742 in 1990 according to UEEA.

The seasonal pattern of beef slaughtering (46% of annual killings in the three months September, October and November) results in a considerable under-utilization of processing facilities for a large part of the year, providing a possible explanation for the low output average level of Irish slaughterhouses (4 226 cattle units).

Employment within the industry also follows a seasonal pattern.

Outlook

Two main tendencies are going to charac-

terise the evolution of the sector over the next few years: increasing concentration and tougher competition due to a reduction in demand for cattle slaughtering.

Both tendencies are likely to result in a further reduction in the number of slaughterhouses.

UEEA: Union Européenne des Exploitants d'Abattoirs / European Abattoirs Union; Address: Rue Belliard 197, boîte 6, B-1040 Brussels; Tel.: (32 2) 230 61 70; Telefax: (32 2) 230 60 63

Revised by Prometeia Calcolo S.r.l.

Since the establishment of the European Community, the structure of the poultrymeat sector has changed remarkably. The trend has been towards an increasing volume of production, the differentiation of products and the concentration of production, both geographically and in structural terms. The outlook for growth in both the world market and the European market is very favourable. This is due to the price advantages of poultry over other types of meat, and to an increasing preference for poultry on the consumers' part due to its nutritional characteristics and convenience.

Current situation

In 1990 the EC produced more than 6 million tonnes of poultrymeat, increasing its supply by 2.2% from the previous year.

Apparent consumption was higher in 1990 than in 1989, achieving a level of 5.9 million tonnes. EC net exports amounted to 288 thousand tonnes in 1990, thus decreasing by 15% in comparison to the previous year. The two main products in the poultrymeat sector are chicken and turkey meat, the first accounting for almost 70% of total production. In 1989 the Community supply of both these products was 1.5% and 8.6% respectively, higher than in the previous year.

In comparison to other food sectors, the poultrymeat sector is subject to a more liberal market organisation within the EC. For instance, there is no possibility of obtaining aid for the establishment of poultry farms, except in cases where environmental protection is involved. Aid from public funds may be granted for the modernisa-

tion of slaughtering plants, but not for an increase in productive capacity.

In principle, poultrymeat can move freely from one Member State to another.

The present market organisation for trade relations with third countries includes a system of export refunds as well as a system of sluice-gate prices and import levies.

Consumption and production

EC demand for poultry meat increased by 18% over the period 1982-89.

The Community is the second largest consumer of poultry meat after the USA (9 579 thousand tonnes in 1989) and the USSR (3 425 thousand tonnes).

In the EC the per capita demand for poultry increased from 13.7 kg in 1981 to 17.5 kg in 1989.

This increasing trend was common to all the Member States except for Spain, which however had the highest per capita consumption of poultry meat, 21.5 kg in 1989.

Table 1
Poultry
Main Indicators, 1981-90

(x 1000 tonnes)	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 (*)
Apparent consumption	4 777	5 004	4 842	4 921	5 051	5 137	5 435	5 646	5 734	5 923
Net exports	403	357	376	283	231	251	301	296	340	288
Production	5 180	5 361	5 218	5 204	5 282	5 388	5 736	5 942	6 074	6 211

(*) Estimated.
Source: AVEC/ZMP

Table 2
Poultry
Chicken and turkey meat production, 1989 (*)

(x 1000 tonnes)	B-L	DK	D	GR	E	F	IRL	I	NL	P	UK	EC
Chicken meat production	138	111	234	138	742	889	53	608	407	180	775	4 275
Turkey meat production	4	3	103	3	23	388	22	257	28	29	175	1 035

(*) Estimated.
Source: AVEC/ZMP.

Figure 1 shows that in 1989 in the EC the per capita consumption levels of chicken and turkey meat were very different, 12.2 kg and 3.1 kg respectively. By considering consumption per head in a single country, it emerges that per capita consumption of chicken is higher in Spain, Portugal and Greece whereas the highest levels of per capita consumption of turkey are to be found in France, Italy and Ireland.

EC production volume of poultry increased by 12.8% over the period 1982-90.

EC is the second main producer after the USA (10 029 thousand tonnes in 1989), followed by the USSR (3 260 thousand tonnes).

Within the Community the main producing countries are France, Italy and the UK accounting for 25.6%, 16.8% and 17.0% respectively of total production in the Community in 1989.

The main suppliers of chicken meat are France, the UK and Spain, accounting for 20.8%, 18.1% and 17.4% respectively of the EC production of poultry whereas for turkey meat, the main producing countries are France, Italy and the UK.

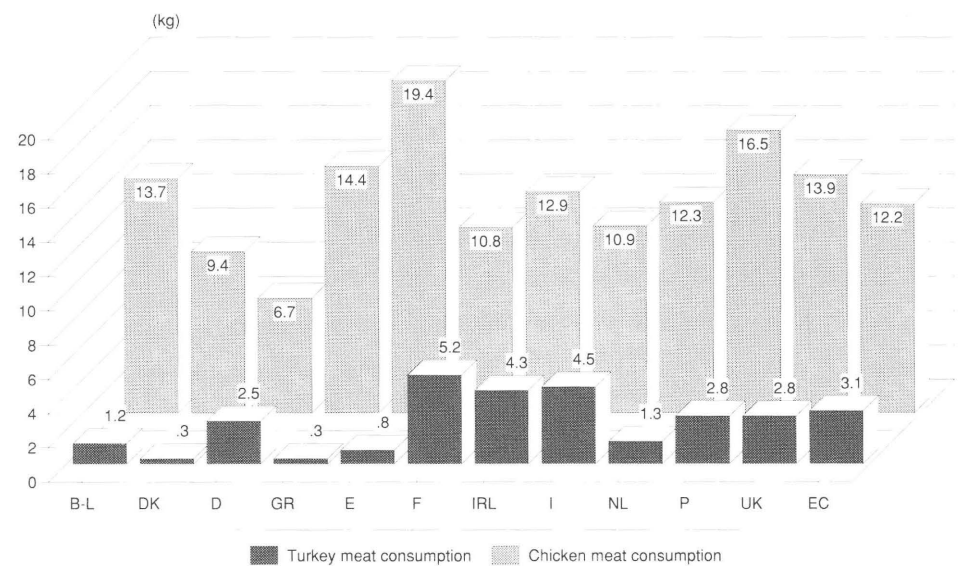
Trade

In 1989 the level of extra-EC imports of poultry meat was 7 000 tonnes lower than in the previous year, reaching 110 000 tonnes. External exports amounted to 450 000 tonnes, 9% more than in 1988. As a result of such variations, the ratio between exports and imports increased from 3.5 in 1988 to 4.1 in 1989. In the same year, the import penetration rate was 1.9%, slightly lower than the 1988 level (2%).

Regulatory environment

In 1971, the EC Commission presented a proposal for a Council Regulation on marketing standards for poultrymeat. The proposal was never adopted but its main principles were later adopted by the United Nations' Economic Commission for Europe and have now been tested in practice for five years, with good results. The UN/EC marketing standards are subject to current revisions made on the basis of practical experience. In 1990 a Council Regulation on marketing standards was

Figure 1
Consumption per capita of chicken and turkey meat, 1989



Source: AVEC/ZMP

Table 3
Poultry
Human consumption per capita of poultry

(kilos)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (*)	N/A	13.7	15.3	15.4	15.4	15.7	16.0	16.6	17.4	17.5
Belgique/België, Luxembourg	13.0	13.2	14.9	15.0	14.6	15.4	16.2	16.3	16.5	16.7
Danmark	8.2	8.6	9.6	9.8	9.8	11.0	11.7	11.7	11.7	12.5
BR Deutschland	9.9	9.7	9.9	9.3	9.5	9.7	10.1	10.5	11.2	11.4
Hellas	12.0	14.9	16.2	15.6	15.7	15.7	15.2	15.7	15.7	15.9
España	N/A	24.2	22.4	21.6	21.0	21.8	19.7	20.7	21.9	21.5
France	16.7	16.7	16.8	17.7	17.3	17.7	18.8	18.5	19.4	20.3
Ireland	14.4	14.2	15.2	16.0	15.6	17.2	18.4	20.0	20.9	19.4
Italia	17.1	16.9	17.4	17.4	17.0	16.7	16.9	17.4	17.7	18.2
Nederland	9.0	9.0	10.3	11.1	11.9	12.7	13.4	14.7	15.0	15.7
Portugal	N/A	16.5	15.8	17.1	15.3	15.5	16.0	18.4	19.2	20.4
United Kingdom	13.4	13.4	14.4	14.7	15.7	16.2	17.3	18.4	19.4	18.3

(*) 1980 EC10.
Source: AVEC/ZMP.

adopted, and the EC Commission is now preparing the implementation of Commission regulations. Common EC standards for the water content of frozen poultry meat are laid down in the Council Regulation of 1976. These standards determine the maximum water content in poultrymeat, but certain misunderstandings have arisen due to different testing methods, and the EC Commission has now taken steps to carry out experiments in several Member States to decide whether it will be necessary to amend the Council Regulation. The main object is to remove obstacles to intra-Community trade that may be due to different testing methods.

The rules on health inspection of poultrymeat are laid down in a Council Directive on health problems affecting trade in fresh poultrymeat. However, the interpretation of the provisions of this directive differs considerably from one Member State to another, and so do the inspection charges paid by the processing plants in the various EC countries. In order to harmonise these charges, a Council Directive laying down a minimum fee to be collected for health inspection in all the Member States has been adopted.

Outlook

Demand for poultry meat is still low compared to the higher level of per capita consumption already reached in the USA

(38.6 kg).

A 2.5% increase in consumption of poultry meat is expected in 1990 in the EC. A rise in consumption is also forecasted in the other main consuming countries, the USA (+7.1% in 1990) and the USSR (+2.8%).

The Community production of poultry meat is expected to grow in 1990 at a lower rate than consumption, that is by 1.5%, while in the USA and the USSR production should grow by 6.7% and 3.1% respectively in 1990.

The trade balance of poultrymeat improved in 1989. EC exports are however expected to decline again in 1990 by about 10%.

One of the reasons for this decline is increasing home production in traditional ex-

Table 4
Poultry
Production of poultry

(x 1000 tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 (*)
EC	3 960	5 180	5 361	5 218	5 204	5 282	5 388	5 736	5 942	6 074
Belgique/België, Luxembourg	133	122	134	126	126	131	134	141	152	158
Danmark	97	104	110	112	110	115	116	113	117	128
BR Deutschland	390	378	379	344	351	357	377	389	409	425
Hellas	120	146	157	153	152	155	145	149	149	151
España	N/A	877	845	813	789	815	754	786	819	804
France	1 132	1 238	1 333	1 284	1 251	1 267	1 328	1 408	1 449	1 559
Ireland	50	45	49	53	52	55	59	67	76	73
Italia	953	947	976	974	950	929	940	982	997	1 025
Nederland	337	410	419	399	410	425	442	484	492	506
Portugal	N/A	166	150	162	155	157	163	188	197	209
United Kingdom	748	747	809	798	858	876	930	1 029	1 085	1 036

(*) Provisional figures
Source: AVEC/ZMP.

Table 5
Poultry
Production and external trade ⁽¹⁾

(x 1000 tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Production	3 960	4 153	5 361	5 218	5 204	5 282	5 388	5 736	5 942	6 074	6 211
Index ⁽²⁾	75.0	78.6	101.5	98.8	98.5	100.0	102.0	108.6	112.5	115.0	117.5
Imports extra-EC	77	66	74	68	88	100	81	115	117	110	N/A
Index ⁽²⁾	84.7	79.0	74.0	68.0	88.0	100.0	81.0	115.0	117.0	110.0	N/A
Exports extra-EC	342	469	431	444	371	331	332	416	413	450	N/A
Index ⁽²⁾	104.0	143.0	130.2	134.1	112.1	100.0	100.3	125.7	124.8	136.0	N/A
X/M	4.4	7.1	5.8	6.5	4.2	5.3	4.1	3.6	3.5	4.1	N/A

⁽¹⁾ 1980 EC 10.

⁽²⁾ Taking into account changes in EC membership.

^(*) Estimated

Source: AVEC/ZMP.

port markets, particularly in Middle East countries, where a considerable increase in poultry production is expected.

The rapid evolution in the field of processed poultry products contribute to give favourable perspectives for the poultry sector, within which competition will intensify in the future.

AVEC: Association of Poultry Processors and Poultry Import and Export Trade in EC Countries. Address: Vester Farimagsgade 1, DK-1606 Copenhagen. Tel.: (45 33) 115670; Telefax: (45 33) 935670

Revised by: Prometeia Calcolo S.r.l.

The milk and dairy-farming sector is slowly increasing, its production at constant prices shows an annual growth rate of 1% on average over the period 1980-1989. With respect to consumption, low-fat products are becoming more popular and there is a trend towards concentration, rationalisation of products and the control of distribution networks.

Description of the sector

The main dairy products manufactured in the EC are liquid milk, butter, cheese, fresh products (i.e., cream, fermented milk, desserts, fresh cheese) and preserved milk (skimmed and whole-cream milk, powdered milk, sweetened condensed and evaporated milk).

The list includes a number of regional specialties. Other products such as casein and whey products are less significant, but are growing in importance as the use of ultra-filtration spreads, giving dairies greater manufacturing flexibility by breaking milk down into higher value added components.

In all European countries the dairy-farming sector has been affected by two main trends; a reduction of animal fats in food diets and a change in preservation, packaging, transportation and distribution systems. An increase in the production of low-fat milk and milk by-products has been observed, as well as an increase in packaged and brandless products which has resulted in further sector concentration.

Consumption trends

The consumption at constant prices of dairy products increased by 4.6% between 1986 and 1989, with an annual growth rate

of 1.5%. However, very different trends are to be found both among product categories and within the categories themselves.

Whereas the consumption of butter is slightly decreasing as a result of its competition with vegetable or mixed fats, the consumption of cheese, particularly fresh cheese, is increasing.

The consumption of cream and fermented milks (yoghurt in particular) is markedly increasing. The consumption of milk is stable, though low-fat and UHT milk is increasing. As a consequence of this variety of trends, its major product categories will be analysed in detail.

Butter Three countries - Germany, France and the U.K. - account for 74% of butter consumption (table 2). The volumes of per capita consumption in Northern European countries are higher than those in Southern countries. Denmark (9.8 kilos in 1990), France, Belgium and Germany show the highest per capita consumption whereas in Italy, Spain, Greece and Portugal they are quite low. Recently, alternative products have made their appearance.

From 1988 in particular, mixed-fat products have been marketed in various countries, leading to a decrease in butter consumption.

Table 1
Dairy product
Main indicators, 1980-90 (*)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 (*)
Apparent consumption	33 198	35 884	39 976	44 355	45 946	47 114	53 427	53 152	55 328	59 589	61 214
Net exports	2 519	3 150	3 224	2 794	3 267	3 145	2 268	2 371	2 834	3 420	2 740
Production	35 717	39 034	43 200	47 149	49 213	50 259	55 695	55 523	58 162	63 009	63 954
Employment (number)(²)(³)	258 056	250 616	249 391	253 465	248 993	240 006	263 930	270 847	261 676	262 365	N/A

(*) 1980 EC9; 1981-85 EC10.

(²) Excluding Luxembourg.

(³) 1980-81, 1983 and 1989 include estimates for the Netherlands.

(⁴) Estimated on the basis of Eurostat data.

Source: Eurostat (Inde, Comext)

Cheese In the period 1983-1990 cheese consumption increased by an average annual rate of 2.66%. This increasing trend is evident in all European countries, even if their levels of per capita consumption are very different. France and Greece are the main consumers of cheese, with a per capita consumption of nearly 23 kilos per year in 1990. Portugal shows the lowest per capita consumption in Europe, together with Spain and Ireland (about five kilos).

In addition to these geographical differences, the market shows different trends according to different products. The consumption of hard cheese is decreasing, whereas that of semi-hard varieties is increasing, and that of soft varieties is stable. However, soft and pressed-paste cheese (cooked or uncooked) account for the largest share of the market. In this sec-

tor, alternative products with a basis of vegetable fats are also emerging.

Liquid milk Liquid milk consumption is still slowly decreasing in Europe. The U.K. and Ireland account for the highest per capita consumption, whereas Portugal, France and Germany account for the lowest, even though consumption is increasing in these two countries. Two factors influence the consumption of this product (and of other milk by-products): the first is that the production of low-fat products and semi-skimmed milk is rapidly increasing; the second regards preservation techniques and packaging systems. Consumption of UHT and sterilised milk is increasing at the expense of pasteurised milk. This trend, however, is different in the various countries. Whereas in France UHT milk tends to be substituted for pasteurised milk, in Holland the consumption of UHT milk

is decreasing by a higher rate than that of total consumption. Up to 1980, in Italy UHT seemed to be substituted for pasteurized milk, but this trend has stopped and nowadays consumption of both types is stable.

Preserved milk products The consumption of preserved milk products is decreasing. In general, powdered milk tends to substitute condensed milk. Most of the production of powdered milk is exported to third countries. Condensed milk is mainly consumed in Germany, the U.K., Holland and Greece. In the latter, per capita consumption is significantly high, showing its use instead of fresh milk.

Fresh products This is the most dynamic category in the whole sector. The consumption of its three main products (cream, yoghurt and desserts) increased by an annual rate of 4.6%, 8.7% and 3.5% on average, re-

Table 2
Dairy product
Gross butter consumption

(1000 tonnes)	1983	1984	1985	1986	1987	1988	1989(*)	1990(*)
EC	1 581	1 639	1 666	1 677	1 665	1 667	1 556	1 506
Belgique/België/Luxembourg	90	93	83	80	82	85	83	83
Danmark	51	40	37	37	37	35	51	50
BR Deutschland	399	427	461	482	498	506	459	440
Hellas	6	7	10	17	9	16	16	16
España	17	17	18	19	19	16	17	18
France	482	524	511	526	520	490	440	440
Ireland	47	44	28	28	25	23	21	21
Italia	121	129	138	138	137	144	138	138
Nederland	48	57	59	59	58	52	58	58
Portugal	8	8	8	8	8	10	10	10
United Kingdom	307	288	280	269	269	287	230	230

(*) Estimated.

Source: Eurostat (Zpa 1)

Table 3
Dairy products
Gross consumption of cheese

(1000 tonnes)	1983	1984	1985	1986	1987	1988	1989 ⁽¹⁾	1990 ⁽¹⁾
EC	3 765	3 883	4 059	4 091	4 235	4 325	4 517	4 527
Belgique/België, Luxembourg	115	116	116	116	121	123	126	125
Danmark	57	63	58	64	64	65	67	67
BR Deutschland	821	836	884	909	933	985	1 035	1 000
Hellas	199	205	210	228	211	229	230	230
España	163	167	174	166	163	161	195	195
France	1 035	1 086	1 152	1 133	1 208	1 221	1 230	1 255
Ireland	12	13	15	14	15	15	16	16
Italia	817	822	872	850	893	853	935	935
Nederland	183	193	186	194	194	203	220	222
Portugal	28	30	30	42	45	47	42	44
United Kingdom	330	347	357	370	383	418	416	433

⁽¹⁾ Estimated.
Source: Eurostat (Zpa 1).

spectively, over the period 1983-1988.

Regulatory environment

In April 1984, the Council of Ministers introduced a production quota system.

Despite the scheme, milk production persisted at levels beyond the target.

The Council therefore adopted in 1986 a Commission's proposal characterised by three main aspects:

- ❖ reduced reference quantities (some being temporary reductions) and a more severe additional levy;
- ❖ adjustment of the intervention mechanisms;
- ❖ implementation of a programme to reduce stocks, particularly of butter.

The Council's decision caused a reduction of milk production of about 9.5% already in 1988 and the additional levy has been renewed until 1992.

Production

The most important areas for milk production are located in the U.K. (West Country, Shropshire, Cheshire, Lancashire), in France (Basse Normandie, Bretagne, Pays de la Loire) and in Northern Italy.

In Germany milk production is concentrated in the South (Bavaria and Baden-Württemberg), whereas in Belgium and Holland it is spread all over the country.

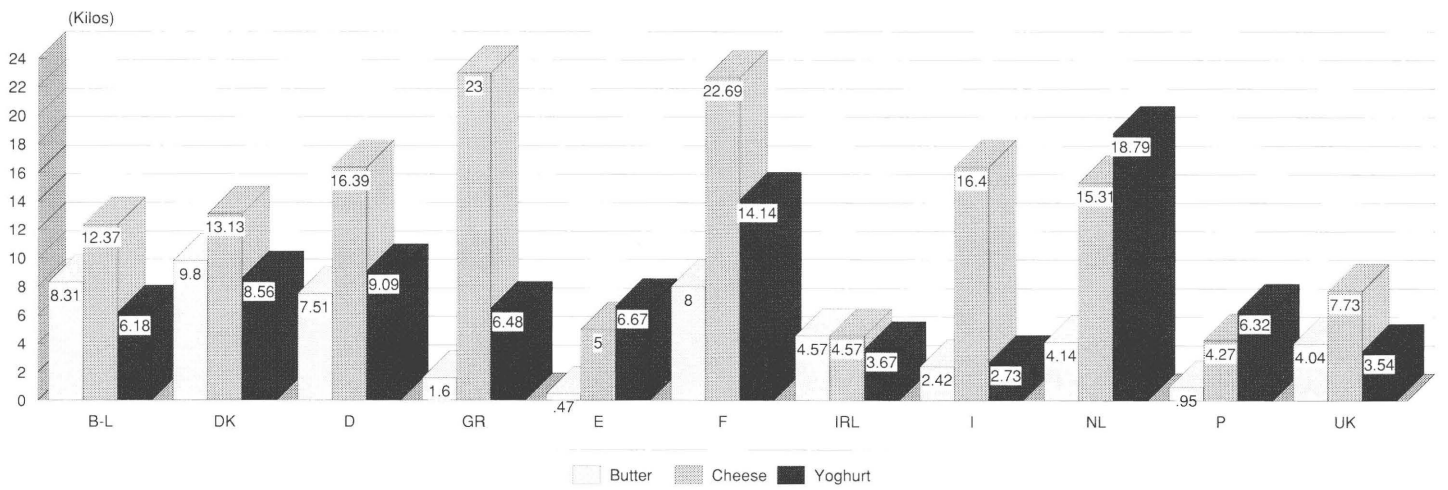
A 1985 report by the EC Commission al-

ready noted a clear tendency to reduce the number of dairies collecting less than 20 000 tonnes milk, and to increase the number of those collecting more than 50 000 tonnes milk.

Butter The significant reduction of EC intervention on stocks has partly reduced pressure on prices. Internal production has been cut so as to reach the levels of consumption. A sharp reduction of production took place in the major producer countries in the period 1983-1990: -40% in Germany, -32% in the Netherlands, -46% in the U.K. and -22% in France.

Cheese The geographical structure of cheese production mainly corresponds to

Figure 1
Per capita consumption of dairy products, 1990 (1)



⁽¹⁾ Estimated
Source: Eurostat

Table 4
Dairy products
Production

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (1)	38 349	41 865	46 340	50 243	52 677	53 952	55 695	55 523	58 162	63 009
Belgique/België	1 306	1 425	1 594	1 855	1 962	2 014	2 075	2 062	2 164	2 404
Danmark	1 531	1 713	1 927	2 295	2 461	2 447	2 441	2 394	2 443	2 629
BR Deutschland	8 372	8 782	10 053	11 367	11 174	11 086	11 824	11 415	11 912	12 829
Hellas	201	256	293	315	310	364	347	337	405	466
España	2 146	2 468	2 709	2 654	2 958	3 096	3 315	3 248	3 582	3 970
France	9 704	11 033	11 967	12 712	13 809	14 963	15 740	15 628	16 155	17 306
Ireland	1 284	1 447	1 714	1 966	2 072	2 271	2 327	2 235	2 295	2 531
Italia	2 629	3 128	3 619	4 581	6 029	5 744	5 619	6 229	6 319	6 891
Nederland	5 183	5 296	5 139	5 139	4 598	4 370	5 012	4 764	4 898	5 660
Portugal	285	363	431	440	506	597	641	615	618	797
United Kingdom	5 709	5 955	6 894	6 919	6 798	7 001	6 355	6 596	7 371	7 526

(1) Excluding Luxembourg.
Source: Eurostat (Inde)

that of consumption. In the Netherlands and in Denmark the levels of consumption are considerably lower than those of production. On the other hand, in Belgium and Italy, cheese consumption exceeds production. The first ten industrial cheese producers account for 30% of the EC market. The leader (the Danish co-op MD Foods) accounts for little more than 4%, whereas the second (the Dutch Frico) for 3.5%. In this sector an im-

portant feature is the appearance of alternative kinds of cheese with a basis of vegetable fats. The extension of the market for these products depends on national legislation for the identification of food products and on the possible introduction of EC regulation for the distinction of dairy products based on milk.

Liquid milk In the sector of UHT milk the trend towards industrial concentration is

more significant. In Italy, for instance, the first six UHT milk producers account for nearly 60% of the sector. With respect to fresh milk, the situation varies remarkably in the different countries. In Spain and in Italy the sector is very fragmented, thus differing from Holland and the U.K., where few large industrial groups or co-op control the majority of local factories for pasteurisation and bottling.

Table 5
Dairy products
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Production at current prices											
EC	38 349	41 865	46 340	50 243	52 677	53 952	55 695	55 523	58 162	63 009	63 954
Index	71.1	77.6	85.9	93.1	97.6	100	103.2	102.9	107.8	116.8	118.5
USA (1)	22 475	30 459	36 660	41 850	46 849	49 271	39 327	35 419	35 022	40 595	N/A
Index	45.6	61.8	74.4	84.9	95.1	100	79.8	71.9	71.1	82.4	N/A
EC											
Production at constant prices	52 049	51 572	51 654	53 873	54 515	53 952	55 197	55 379	55 686	56 984	57 838
Index	96.5	95.6	95.7	99.9	101	100	102.3	102.6	103.2	105.6	107.2
Value added at current prices (2)	6 784	6 197	7 000	7 468	7 936	8 307	8 378	8 688	9 116	9 757	N/A
Index	81.7	74.6	84.3	89.9	95.5	100.0	100.9	104.6	109.7	117.5	N/A
Productivity (3)	177.4	182.3	183.6	188.7	194.1	198.6	209.1	204.5	212.8	217.2	N/A
Index	89.3	91.8	92.4	95.0	97.7	100.0	105.3	103.0	107.2	109.4	N/A
Investment at current prices (4)	1087	1183	1223	1525	1411	1158	1241	1298	N/A	N/A	N/A
Index	93.9	102.2	105.6	131.7	121.9	100	107.2	112.1	N/A	N/A	N/A

(1) Census of Manufactures and Eurostat estimates.
(2) Excluding Ireland, Luxembourg and Portugal.
(3) Production at constant prices per employed (thousand ECU).
(4) Excluding Spain and Portugal; 1984-87 excluding Greece; 1983-84 excluding Luxembourg.
(*) Estimated.
Source: Eurostat (Inde).



Table 6
Dairy products
Dairy cows' milk production

(1000 tonnes)	1983	1984	1985	1986	1987	1988	1989 ⁽¹⁾	1990 ⁽¹⁾
EC	118 677	116 692	115 938	117 195	111 974	⁽²⁾ 108 894	108 448	108 558
Belgique/België	3 872	3 819	3 796	3 918	3 777	3 637	3 675	3 675
Danmark	5 427	5 234	5 099	5 111	4 860	4 740	4 685	4 670
BR Deutschland	26 913	26 151	25 674	26 350	24 436	23 978	24 240	23 900
Hellas	679	687	663	648	649	N/A	650	650
España	6 210	6 392	6 258	6 108	5 941	5 738	5 775	5 775
France	27 650	27 700	27 790	28 074	27 146	26 606	25 995	26 700
Ireland	5 491	5 730	5 823	5 614	5 522	5 323	5 137	5 137
Italia	10 618	10 665	10 753	10 858	10 898	10 726	10 600	10 350
Luxembourg	290	299	301	299	293	285	283	283
Nederland	13 240	12 782	12 550	12 695	11 672	11 406	11 335	11 335
Portugal	1 061	1 042	1 114	1 182	1 292	1 349	1 400	1 440
United Kingdom	17 226	16 191	16 117	16 338	15 488	15 106	14 673	14 673

⁽¹⁾ Estimated.

⁽²⁾ 1988: excluding Greece.

Source: Eurostat (Zpa 1)

Fresh products Large firms have focused their attention on this highly dynamic sector from the point of view of consumption. Markets are controlled by few large producers, but also brands of retailers are growing in importance. In 1989, in France, 74% of the milk desserts market was controlled by three producers, but distributors' trade-marks had increased from 8.9% to 13.7% between 1987 and 1989. In Italy, in 1988, the leading four trade-marks accounted for 74% of the yoghurt market.

Employment and productivity

EC employment significantly decreased by more than 31 000 people between 1980 and 1989. The most important reasons for this reduction were the limits imposed on milk production and the technological innovations which led to the development of mechanisation and of automated production. During this period productivity per employee increased; the productivity index increased from 89.3 in 1980 to 109.4 in 1989 (1985=100). In the single countries

trends were different. Whereas in France, Germany and the U.K. employment decreased by 34 000 people between 1980 and 1989, during the same period in Italy it increased by about 7 000 people. This increase can only be partly justified by the increase in production and resulted in a worsening in productivity.

Industry structure

Among the factors determining the creation of larger firms, a very important feature is played by the control of marketing strategies, of the distribution system and the relationships with distribution by retail.

Table 7
Dairy products
Butter and butteroil production

(1000 tonnes)	1983	1984	1985	1986	1987	1988	1989 ⁽¹⁾	1990 ⁽¹⁾
EC	2 271	2 108	2 016	2 211	1 887	1 682	1 656	1 598
Belgique/België	80	86	83	86	72	60	76	76
Danmark	131	104	110	112	96	94	89	87
BR Deutschland	627	572	515	566	464	392	398	375
Hellas	2	2	2	8	2	3	12	12
España	17	17	17	29	28	24	19	19
France	622	597	586	645	571	517	518	485
Ireland	162	168	164	158	147	134	111	111
Italia	74	77	76	76	80	87	81	80
Luxembourg	8	8	8	8	7	6	6	6
Nederland	300	266	263	292	235	215	205	205
Portugal	7	6	7	9	8	10	10	10
United Kingdom	241	205	202	222	176	140	131	131

⁽¹⁾ Estimated.

Source: Eurostat (Zpa 1)

Table 8
Dairy products
Natural cheese production

(1000 tonnes)	1983	1984	1985	1986	1987	1988	1989 ⁽¹⁾	1990 ⁽¹⁾
EC	3 987	4 166	4 282	4 277	4 430	4 563	4 800	4 829
Belgique/België	43	44	51	51	55	59	62	62
Danmark	251	295	256	254	272	260	265	270
BR Deutschland	847	878	913	923	955	1 008	1 050	1 030
Hellas	103	112	125	123	123	103	210	210
España	152	153	159	140	139	137	160	160
France	1 212	1 243	1 283	1 292	1 322	1 353	1 387	1 431
Ireland	52	55	79	63	65	75	75	75
Italia	562	590	602	603	644	664	669	664
Luxembourg	3	3	3	3	3	3	4	4
Nederland	489	518	525	537	555	564	577	580
Portugal	28	29	30	30	33	38	41	43
United Kingdom	245	246	256	258	264	299	300	300

⁽¹⁾ Estimated.
Source: Eurostat (Zpa 1)

This sector presents a double structure since, on one hand, some large producers dominate the market, invest heavily in advertising and have national distribution networks which allow them to make long-term contracts with big distribution chains and, on the other, there is still a large number of small producers.

Concentration is significantly high in Denmark where MD co-ops account for 75% of cheese national production and in the U.K. where, in 1989, the four leading milk producers accounted for about 70% of sales, whereas the four leading cheese producers accounted for 55%. In Holland, four

firms account for about 80% of production. In Germany, France and Italy, fragmentation is more significant; in these countries a number of major producers co-exist with many local firms. In Spain this sector is extremely fragmented with nearly 300 000 producers against the 500 000 producers in the other EC countries.

The process of concentration often develops through mergers and acquisitions. For instance, in Italy BNS has purchased Galbani, in France Unilever has taken over Boursin, whereas in Holland DMV Campina and Melkunie merged. The merger between the two most important co-

ops, CC Friesland and Noord-Nederland (Frico/Domo), has been discussed for a long time.

Trade

Intra-EC trade has doubled during the eighties.

With regard to trade with third countries, the European Community is a net exporter of dairy products. The export/import ratio is constantly decreasing but it is still significantly high.

Various factors influence exports flows. These include incentives to the export of butter and preserved milk towards Eastern European countries and strategies to aid

Table 9
Dairy products
Production of fresh products ⁽¹⁾

(1000 tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC ⁽²⁾	27 233	28 392	28 388	28 697	28 976	28 490	29 509	29 434	29 800
Belgique/België	921	949	944	962	945	961	950	1 003	1 051
Danmark	835	840	843	843	767	743	744	737	819
BR Deutschland	6 067	6 247	6 339	6 505	6 645	6 853	6 827	7 052	7 454
Hellas	N/A	697	694	674	716	654	634	741	699
España	N/A	N/A	N/A	N/A	N/A	N/A	1 201	1 132	1 071
France	4 163	4 267	4 374	4 516	4 867	4 620	4 755	4 597	4 472
Ireland	774	841	893	884	904	918	887	878	868
Italia	4 293	4 519	4 725	4 532	4 578	4 426	4 302	4 237	4 278
Luxembourg	63	64	67	64	68	69	71	70	70
Nederland	1 412	1 420	1 402	1 419	1 409	1 357	1 289	1 255	1 160
Portugal	N/A	N/A	N/A	N/A	N/A	N/A	128	130	130
United Kingdom	8 705	8 548	8 407	8 299	8 078	7 890	7 722	7 602	7 728

⁽¹⁾ Including self-consumption, direct sales and home-produced cream.
⁽²⁾ 1980 EC 9; 1981-85 EC10.
Source: Eurostat (Zpa 1)

Table 10
Dairy products
Production of milk powders

(1000 tonnes)	1983	1984	1985	1986	1987	1988	1989 ⁽¹⁾	1990 ⁽¹⁾
EC ⁽²⁾	3 201	2 952	2 786	2 971	2 556	2 311	2 336	2 327
Belgique/België	177	155	151	162	142	125	132	132
Danmark	134	115	120	125	115	103	104	103
BR Deutschland	854	741	675	768	597	559	618	577
España ⁽³⁾	31	32	32	46	52	44	44	44
France	965	968	881	931	819	719	712	745
Ireland	192	212	190	181	167	137	123	123
Italia	2	2	3	3	3	2	3	3
Luxembourg	13	14	13	13	12	10	10	10
Nederland	484	426	408	404	348	357	345	345
Portugal ⁽³⁾	12	11	11	14	14	14	14	15
United Kingdom	337	276	302	324	287	241	231	231

(1) Estimated.
(2) Excluding Greece.
(3) 1983-85 estimated.
Source: Eurostat (Zpa 1)

Table 11
Dairy products
Employment

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC ⁽¹⁾	293 473	282 866	281 366	285 480	280 853	271 626	263 930	270 847	261 676	262 365
Belgique/België	6 627	6 459	6 639	8 567	8 746	8 551	7 833	7 755	7 753	7 759
Danmark	9 430	8 011	7 961	8 179	8 296	7 097	7 501	8 565	8 089	7 763
BR Deutschland	49 586	48 860	47 944	46 888	44 486	42 812	41 265	39 343	38 486	38 277
Hellas	3 696	3 794	4 236	4 528	4 066	4 062	3 991	3 902	3 780	3 720
España	22 994	22 836	22 379	22 670	22 103	22 074	22 263	22 600	22 693	23 155
France	81 173	78 108	78 011	78 597	75 970	72 762	68 936	65 280	64 561	64 224
Ireland	12 008	11 701	11 435	12 222	11 637	11 137	10 792	10 317	10 185	9 986
Italia	27 523	27 409	27 462	30 415	34 450	33 809	33 050	33 555	33 726	34 444
Nederland ⁽²⁾	23 065	22 231	22 113	22 436	20 875	20 040	20 195	19 936	19 699	19 751
Portugal	8 727	9 414	9 596	9 345	9 757	9 546	9 955	10 334	10 433	10 785
United Kingdom	48 644	44 043	43 590	41 633	40 467	39 736	38 149	49 260	42 271	42 501

(1) Excluding Luxembourg.
(2) 1980-81, 1983 and 1989 estimated.
Source: Eurostat (Inde)

Table 12
Dairy products
EC trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ⁽²⁾
Exports extra-EC	3 003	3 773	3 904	3 480	3 910	3 827	2 999	3 080	3 595	4 294	3 749
Index ⁽¹⁾	78.6	98.6	102.0	90.9	102.2	100.0	77.9	80.0	93.4	111.6	97.9
Imports extra-EC	484	623	680	686	643	682	731	709	761	874	1 009
Index ⁽¹⁾	71.4	91.4	99.8	100.6	94.3	100.0	98.9	95.9	103.0	118.3	147.9
X/M	6.20	6.06	5.74	5.07	6.08	5.61	4.10	4.34	4.72	4.91	3.71
Trade intra-EC	4 338	5 421	6 201	6 422	6 493	7 332	7 812	8 160	9 717	9 855	N/A
Index ⁽¹⁾	61.3	73.9	84.6	87.6	88.6	100.0	104.7	109.4	130.3	132.1	N/A
Share of total (%)	59.3	59.1	61.4	64.7	63.6	65.0	72.0	73.0	73.1	70.2	N/A

(1) Taking into account changes in EC Membership.
(2) Estimated
Source: Eurostat (Comext)

third world countries.

Through surplus reduction and quota control, these interventions are now less significant. Middle and Far East markets, particularly important for cheese, are strongly affected by the dollar trends. Butter prices are decreasing everywhere in the world.

Outlook

The whole sector is slowly increasing. Within it there are dynamic subsectors and its industrial organisation is rapidly changing and these changes will be eased by the integration of the EC market in 1992.

Table 13
Dairy products
Outlook

(million ECU)	1989	1990	91/90 (%)	92/91 (%)
Production at constant prices	56 984	57 838	1.2	1.1

Source: Prometeia Calcolo Srl

The development of more dynamic subsectors gives the largest firms new opportunities for marketing new products which can be supported through large advertising campaigns and sale networks.

Among these opportunities is diversification towards the sectors of snack and con-

fectionery products, whose marketing integrate the lines of dessert and fresh products.

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Consumption of processed fruits and vegetables, in particular that of fruit juices, is increasing and it is expected to increase in the coming years.

EC producers have to face price competition by third countries.

The structure of the industry shows a group of large enterprises and a high number of small firms.

Moreover, an increasingly important role is being played by commercial trade-marks.

Description of the sector

NACE 414 category includes all processing which can prolong fruit and vegetable preservation, namely the preservation of vegetables in vinegar, pickle or oil, the processing of fruit juices, canned fruit and vegetables and of jams and jellies.

Through this kind of processing, it is possible to overcome highly seasonal production and allow consumption of these products throughout the year.

Consumption

Canned fruit and vegetable consumption at current prices increased by 3.8% during 1989. Over the period 1986-1989 the annual growth rate was 6.6%.

The consumption of canned fruit and vegetables is higher than internal production due to the import of lower priced products from South Africa and Australia and the diffusion of consumption of exotic fruits.

Canned vegetables EC consumption increased by about 14% during the period 1983-1988 and this growth trend was common to almost all the EC countries (with the exception of Germany).

The largest consumer countries are France, Italy and the United Kingdom which, in 1988, accounted for 56% of the

EC total consumption. With respect to per capita consumption, the highest levels can be found in Belgium (23.80 kilos), followed by France, Italy, Greece and Ireland whose level of consumption amounts to about 16 kilos. In the remaining countries, the levels of per capita consumption are slightly lower. Consumption varies according to the kind of vegetable.

In Italy, for example, tomatoes account for 80% of consumption, whereas the remaining 20% is divided among beans (8%), peas and string beans (12%).

However, in the United Kingdom the consumption of tomatoes account for 6%, whereas beans and peas for 50% and 20%, respectively.

Canned fruit From 1983 to 1988, the EC consumption of canned fruit decreased by about 8%.

The marked fall of canned fruit consumption in Germany may be attributed to the preference by consumers for fruit juices. With respect to per capita consumption, the highest levels are found in Italy (8.8 kilos), followed by Spain, Greece and Germany whose levels are about 6 kilos.

Jams and jellies Over the period 1983-1988, consumption slightly increased; the le-

Table 1
Fruit and vegetables, processing and conserving, 1980-90
Main indicators (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Apparent consumption	8 169	9 259	10 334	10 641	12 427	12 731	13 250	14 139	15 147	16 063	16 386
Net exports	- 1 669	- 1 413	- 1 473	- 1 529	- 1 793	- 1 888	- 1 089	- 1 186	- 1 473	- 1 420	- 1 316
Production ⁽²⁾	6 500	7 846	8 861	9 112	10 634	10 843	12 161	12 953	13 674	14 643	15 070
Employment (number ⁽³⁾)	111 115	119 725	114 723	108 552	108 458	106 296	133 091	134 324	138 241	138 893	N/A

(1) 1980 EC9; 1981-85 EC 10.

(2) 1988-90: United Kingdom estimated

(3) Excluding Luxembourg

(4) Estimated on the basis of Eurostat data

Source: Eurostat (Inde, Comext)

vels vary according to different geographical areas. In the Southern European countries consumption is low, accounting for 1 kg/a year per capita, in many Northern European countries (France, Belgium and Germany) it is higher than 3 kilos. It is possible to observe a consumers preference for more expensive products containing a low level of sugar and presenting a wider variety of fruits.

Fruit juices From 1984 to 1989 the consumption of fruit juices increased sharply by a total growth in volume of 54%. The highest levels of consumption are found in Germany (43% of European consumption in 1989) and in the United Kingdom (20.4%). With respect to per capita consumption, Germany again shows the highest levels (36 litres per capita), whereas Southern European countries show lower levels. This is

probably due to the greater availability of fresh fruit which reduces the use of fruit juices. However, these countries show the highest growth rates in consumption of these products. The reasons for this growth are: a tendency to prefer natural and "healthy" products; innovations in packaging and distribution, making the product more available; the development of marketing and the introduction of new tastes.

Production

Total production increased by an average annual rate of 6.3% from 1986 to 1989, a rate similar to consumption. One of the most substantial characteristics of this sector is the rapid growth of distributors trade-marks. Producers strategies differ; some (Bonduelle, for instance) associate production

with their own trade-marks to that of distribution chains, others try to avoid the mixing of trade-marks.

Canned vegetables The production of canned vegetables accounts for more than 2.5 millions cans (850 ml each); in 1985 production reached its highest level with almost 2.7 million cans.

France accounts for almost half of the European production (48% in 1988), whereas Holland, the second producer country, accounted for 13.6% in the same year. In France, the market of canned vegetables is controlled by distributors trade-marks which account for 40% of domestic sales. The largest and the first producer in Europe is Bonduelle. Among trade-marks distributors the leader is Compagnie Saupiquet (Cassegrain). Distributors' trade-marks are also

Table 2
Consumption of the main categories of processed and conserved fruit and vegetables

	Canned vegetables (x 1000 tonnes)		Canned fruits (x 1000 tonnes)		Jam and jellies (x 1000 tonnes)		Fruit juice (million litres)	
	1983	1988	1983	1988	1983	1988	1984	1989
EC	4 174	4 745	1 756	1 611	599.9	687.4	3 310	5 109
Belgique/België ⁽¹⁾	120	235	90	51	24.1 ⁽²⁾	34.1 ⁽²⁾	108	136
Danmark	32	31	10	8	8.6	10.1 ⁽²⁾	68	90
BR Deutschland	774	652	436	356	150.0	195.0	1 439	2 207
Hellas	131	160	63	60	10.6	11.0 ⁽²⁾	9	34
España	420	474	246	231	36.9	38.8 ⁽²⁾	219	408
France	853	942	164	160	178.0	208.0	223	387
Ireland	53	55	13	11	6.7	6.3 ⁽²⁾	19	26
Italia	754	924	462	510	55.0	57.0	242	437
Nederland	170	405	47	38	13.3	15.8	277	323
Portugal	78	89	8	8	9.7	10.3 ⁽²⁾	6	21
United Kingdom	789	778	217	178	107.0	101.0	700	1 040

(1) Including Luxembourg

(2) Estimated

Source: Euromonitor, AiJN

important in other countries (for instance, in Germany Aldi is the leader, accounting for about 40% of sales in volume and 30% in value).

Processed tomatoes The processing of tomatoes only takes place in those countries where they are cultivated, Spain, France, Greece, Italy and Portugal.

In 1989-90, the processed quantity increased to almost 6 million tonnes.

During this period 65% of the product was used for the production of concentrates and 22% for peeled tomatoes. The largest producing country is Italy which, in the last year, processed almost 55% and exported about 60% of its production. In Italy the structure of the processing sector is very fragmented: in 1988 there were about 340 producers employing 5900 people on a permanent basis not counting seasonal workers. Many agricultural co-operations have their own processing plants. The three major producers (Cirio, Bertolli, De Rica) accounted for 41% of the Italian market during 1988.

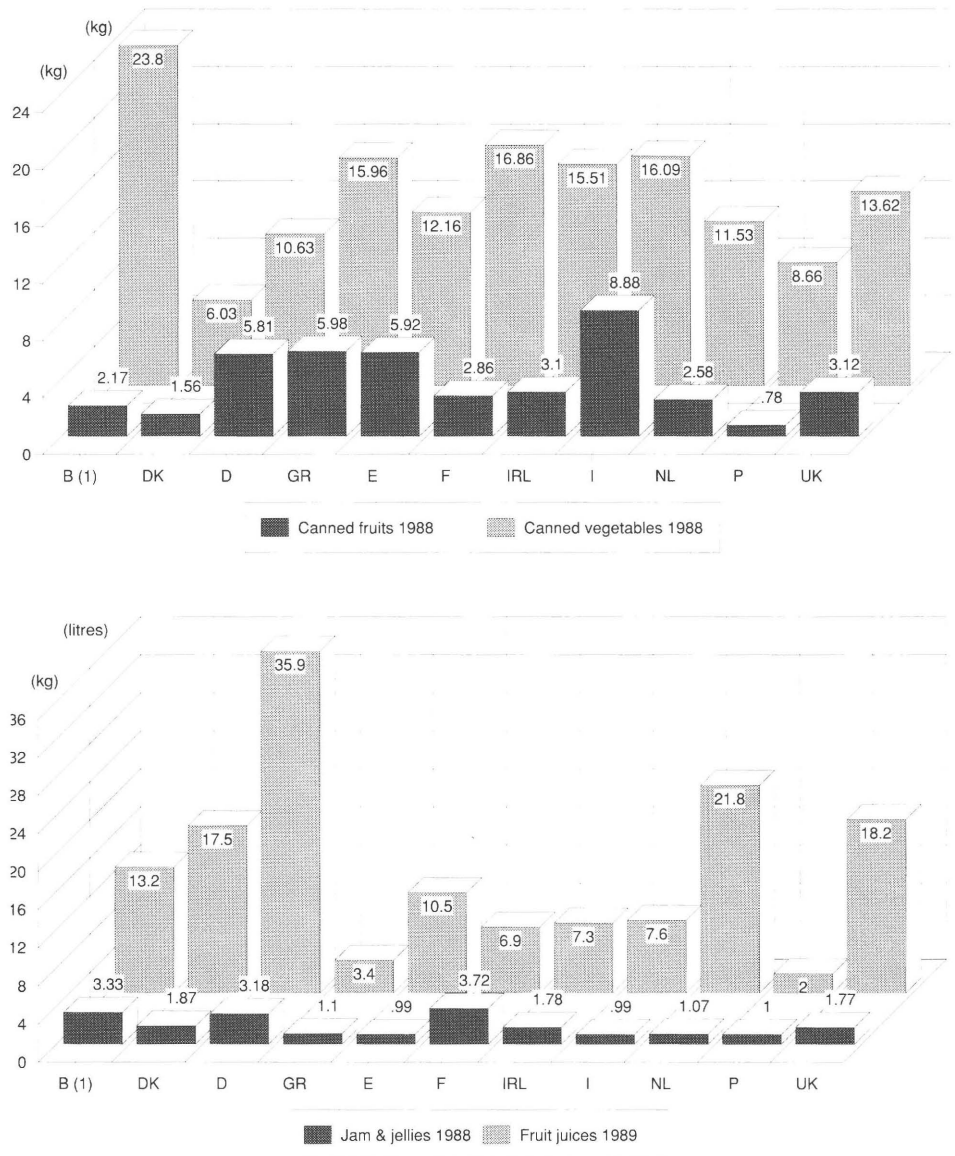
Canned fruit After reaching a very high level in 1985, with almost 1 400 000 850 ml cans produced, EC production decreased to 1 300 000 cans. In the fruit sector, production is much less concentrated in the EC countries.

The first producing country is Spain (25.6% of production in 1988), followed by France and Italy (both accounting for about 18% of production).

In the EC there are about 100 fruit canning plants. In Italy and France about half of the plants are owned by agricultural co-operations themselves. Distributors trade-marks play an important role in this particular production.

Jam and jellies The largest producing

Figure 1
Fruit and vegetables processing and conserving
Per capita consumption



(1) Including Luxembourg for jam and jellies
Source: Euromonitor, AIJN

country is France, accounting for 25% of production, followed by Germany and the United Kingdom, accounting for about 23% of the European production. Jams are distinguished according to the proportion between the amount of fruit contained and that of sugar, the preference lends itself to products containing a higher amount of fruit, with no additives and dyes. Also in this sector, the role of distributors' marks is increasingly important, which in France covered 40% of the market in 1987. However, more than one third of the trade-mark products were produced by the lar-

gest jam-producing company, Andros, owning the two leading trade-marks (Bonne Maman and Andros).

In France there are about 60 producers, of which only few account for more than 5% of the market share. In Germany, this sector is more concentrated and there are about 25 producers of which the leader, Schwartauer Group, has more than 30% of the market share.

Fruit juices More than 50% of European production and consumption of fruit juices is orange juice, although the quantity of juices

Table 3
Fruit and vegetables processing and conserving
Current value of production

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988 (*)	1989 (*)	1990 (*)
EC (1)	8 004	8 898	10 060	10 242	11 987	12 205	12 161	12 953	13 674	14 643	15 070
Belgique/België	246	317	351	410	392	442	542	504(*)	52	58	61
BR Deutschland	1 470	1 662	1 925	1 906	2 264	2 294	2 515	2 651	2 814	3 073	3 189
Danmark	115	147	163	169	205	208	219	211	232	236	24
Hellas	477	574	600	789	797	871	695(*)	62(*)	71	86	89
España	925	937	1 056	981	1 168	1 189	1 162	1 206(*)	1 330	1 474	1 536
France	1 469	1 731	1 973	1 887	2 136	2 320	2 446	2 442	2 626	2 786	2 903
Ireland	88	93	106	108	107	117	119	114	118	12	12
Italia	1 216	1 357	1 498	1 943	2 716	2 471	2 102	2 624	2 757	2 783	2 938
Nederland	629	615	674	549	587	631	871	909	741	76	79
Portugal	100	114	141	149	185	172	146	135	189	21	22
United Kingdom	1 269	1 351	1 573	1 351	1 430	1 490	1 344	1 535	1 621	1 736	1 597

(1) EC10: enterprises with 20 or more employees. Spain and Portugal: all enterprises.

(*) Estimated

Source: Eurostat

produced from other fruits is increasing. Most of juices and nectars are produced from frozen concentrates sent to producers from the countries where the fruits are grown. The price of raw materials depends on the international market, dominated by the USA and Brazil. The most popular kind of packaging is carton.

The techniques of production used today lead to sector concentration and causes the decline of small plants located near the areas where production occurs.

Employment

Employment was stable in all EC countries from 1983 to 1989. At the beginning of the decade a sharp cut in employment oc-

curred and was mainly due to the reorganisation of the British cannery industry (-9500 people from 1980 to 1983) the Spanish and the French (-5000 people and -3700, respectively). The countries with the highest levels of employment in the EC are Spain (17.3% of total employment in 1989) and Italy (16.9%). Nevertheless, in terms of production, the countries with the highest share of the EC production are: Germany (21% in 1990), Italy (19.5%) and France (19.2%), whereas Spain only accounts for 10% of total production. This difference between the weight of the sector in terms of employment and its weight in terms of production can be ex-

plained through productivity differentials and through the different kinds of processing adopted in the various countries. When estimating employment, the fact that many people are seasonally employed should be taken into account.

Trade

Intra-EC trade is remarkable and steadily growing. The most important exporters in the EC are Italy, where tomato production plays a dominant role, and Holland, where horticulture is developed. Internal import flows are mainly directed towards Germany, France and the United Kingdom. With respect to trade between the EC and third countries, the EC is the

Table 4
Fruit and vegetables, processing and conserving
Production of canned vegetables

(thousand 850 ml tins)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (1)	1 983 127	2 219 545	2 521 980	2 402 374	2 421 991	2 692 877	2 651 682	2 347 164	2 572 252
Belgique/België (2)	125 000	180 000	214 000	186 000	162 500	180 000	195 000	184 000	119 000
Danmark	22 500	22 500	22 400	28 134	27 191	26 248	25 445	N/A	N/A
BR Deutschland	102 653	121 276	119 084	77 730	72 490	97 903	101 004	62 146	80 168
España	N/A	N/A	N/A	250 588	250 588	296 688	308 394	308 560	308 241
France	889 763	1 062 193	1 262 039	1 005 003	1 114 100	1 169 399	1 117 792	1 067 995	1 246 013
Ireland	31 997	32 997	24 371	22 051	N/A	N/A	N/A	N/A	N/A
Italia	168 800	167 500	168 300	165 100	163 800	176 000	172 200	174 900	184 900
Nederland	225 000	279 491	325 000	282 000	305 000	396 695	385 941	320 183	350 212
United Kingdom	417 414	353 588	386 786	385 568	325 822	349 944	345 916	229 380	283 718

(1) Excluding Greece, Luxembourg and Portugal; 1980-82 excluding Spain; 1984-86 excluding Ireland; 1987-88 excluding Ireland and Denmark.

(2) 1980-87 estimations

Source: OEIFL

Table 5
Fruit and vegetables, processing and conserving
Transformed tomatoes production (total transformations)

(tonnes of fresh tomatoes)	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90
EC	5 801 600	4 367 970	4 485 180	5 699 010	9 078 810	5 778 460	4 174 400	4 158 790	4 617 670	5 674 300
Hellas	1 445 000	1 123 900	1 007 840	1 075 380	1 483 390	1 317 500	706 000	824 910	956 090	1 288 100
España	541 000	568 000	585 000	654 000	744 000	746 000	473 000	572 930	713 450	875 200
France	399 200	406 370	375 370	303 820	354 590	391 560	242 000	235 270	276 200	324 200
Italia	2 062 000	3 007 040	3 087 920	4 183 030	5 597 840	3 899 230	2 917 400	2 929 400	3 166 650	3 835 800
Portugal	454 400	386 560	436 890	558 160	731 360	741 670	542 000	421 190	461 370	639 100

Source: 1980-88 OEICTO; 1989 AMITOM

net importer of canned vegetables. In

general, Southern EC countries are net exporters to the rest of the world, whereas Northern European countries, Germany in particular, are in debt with the rest of the world for a marked share of consumption.

Outlook

Production is expected to grow. An increase in competition may take place among producing countries and third countries, where production costs are lower. In many categories of this sector production is fragmented and rationalisation is

likely to occur.

This extends the market to commercial trade-marks, as the large distribution chains can offer powerful marketing networks and systems of control to small enterprises and agricultural co-operations.

Table 6
Fruit and vegetables, processing and conserving
Production of canned fruit

(thousand 850 ml tins)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (1)	967 841	920 877	987 798	1 393 357	1 388 157	1 398 104	1 305 882	1 349 366	1 296 300
Belgique/België (2)	31 390	37 720	38 426	40 969	41 663	41 885	45 784	47 863	49 268
Danmark	3 000	5 000	4 000	9 330	13 832	11 708	9 119	N/A	N/A
BR Deutschland	142 654	122 730	146 111	148 721	133 744	134 040	130 585	146 828	135 650
Hellas (2)	224 620	210 000	215 960	212 563	218 448	197 983	182 150	143 377	146 803
España (2)	N/A	N/A	N/A	341 176	341 177	342 235	330 521	323 252	332 431
France	181 827	167 312	217 413	239 250	239 507	240 506	234 598	246 829	232 820
Italia (2)	222 500	224 000	212 000	230 000	244 000	260 000	240 000	289 235	241 312
Nederland	126 000	120 400	108 300	122 000	107 000	123 715	92 235	103 300	116 000
United Kingdom	35 850	33 715	45 588	49 348	48 786	46 032	40 890	48 682	42 016

(1) Excluding Ireland, Luxembourg and Portugal; 1980-82 excluding Spain; 1987-88 excluding Denmark.

(2) Estimations: Belgium 1986, Spain 1983-84, Greece 1987, Italy 1986.

Source: OEITFL

Table 7
Fruit and vegetables, processing and conserving
Production of jam, marmalade, jellies and chestnut paste

(tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (1)	521 842	518 761	528 234	592 638	598 807	615 037	625 537	637 139	647 881
Belgique/België (2)	16 380	19 935	20 864	19 596	24 107	18 950	18 326	20 935	21 639
Danmark	22 500	22 500	23 000	23 000	25 755	26 964	29 311	35 303	36 313
BR Deutschland (2)	106 180	104 577	105 168	120 000	125 000	130 000	135 000	140 000	148 000
España (2)	N/A	N/A	N/A	60 000	60 000	60 234	58 560	54 320	52 600
France	124 006	127 940	132 877	129 800	135 402	137 085	144 218	150 964	160 225
Ireland	13 000	13 000	13 000	13 000	11 000	13 500	11 650	N/A	N/A
Italia	52 500	50 000	50 000	48 000	47 000	47 000	47 000	48 000	47 000
Nederland	35 400	35 349	33 700	32 910	28 100	26 400	29 100	24 700	24 100
United Kingdom	151 876	145 460	149 625	146 332	142 443	154 904	152 372	162 917	148 004

(1) Excluding Greece, Luxembourg and Portugal; 1980-82 excluding Spain; 1987-88 excluding Ireland.

(2) Estimations: Germany 1985-88, Belgium 1984, Spain 1983-84.

Source: OEITFL

Table 8
Fruit and vegetables, processing and conserving, 1980-89
Employment

	1980	1981	1982	1983	1984	1985	1986	1987	(¹)1988	(¹)1989
EC (²)	161 418	151 885	147 199	138 606	138 656	134 992	133 091	134 325	138 241	138 893
Belgique/België	3 661	4 082	4 338	4 499	4 886	5 171	5 605	5 973(¹)	6429	6 925
Danmark	2 120	1 922	1 896	1 754	1 887	1 864	1 917	1 657	1 588	1 522
BR Deutschland	21 343	22 468	21 372	19 169	19 321	18 437	18 712	18 999	19 426	19 482
Hellas	14 739	14 458	13 624	13 772	13 688	14 399	14 629(¹)	14 583(¹)	15054	15 097
España	29 289	26 240	26 160	24 249	24 745	23 820	23 279	23 205(¹)	23955	24 024
France	24 179	21 710	23 480	20 466	19 428	19 372	19 404	17 663	18 404	18 308
Ireland	2 040	1 888	1 612	1 593	1 546	1 387	1 334	1 260	1 238	1 214
Italia	23 943	23 327	21 034	25 717	27 241	25 373	20 420	22 698	23 432	23 499
Nederland	7 998	7 281	6 530	5 238	4 762	4 780	6 280	6 174	5 791	5 785
Portugal	6 275	5 920	6 316	5 805	5 453	4 876	4 316	3 821	4 345	4 357
United Kingdom	25 831	22 589	20 837	16 344	15 699	15 513	17 195	18 292	18 579	18 680

(¹) Estimated.

(²) EC10: enterprises with 20 or more employees. Spain and Portugal: all enterprises.

Source: Eurostat

Table 9
Fruit and vegetables, processing and conserving
EC-Trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(²)
Exports extra-EC	345	628	680	760	904	1 039	1 261	1 283	1 368	1 603	1 469
Index (¹)	45.9	60.5	65.5	73.2	87.0	100.0	83.5	84.9	90.5	106.1	97.2
Imports extra-EC	2 014	2 041	2 153	2 289	2 697	2 927	2 350	2 469	2 841	3 023	2 785
Index (¹)	68.9	69.7	73.6	78.2	92.1	100.0	78.6	82.6	95.0	101.1	93.1
X/M	0.17	0.31	0.32	0.33	0.34	0.36	0.54	0.52	0.48	0.53	0.52
Trade intra-EC	1 574	2 136	2 454	2 738	3 220	3 480	3 825	4 195	4 513	4 942	N/A
Index (¹)	45.3	61.4	70.5	78.7	92.5	100.0	109.2	119.7	128.8	141.0	N/A
Share of total (%)	81.6	76.8	78.2	77.9	78.0	76.8	75.0	76.2	74.4	74.1	N/A

(¹) Taking into account changes in EC-membership.

(²) Estimated

Source: Eurostat (Comext)

Table 10
Fruit and vegetables, processing and conserving
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(¹)
Production at current prices:											
EC	8 004	8 898	10 060	10 242	11 987	12 205	12 161	12 953	13 674	14 643	15 070
Index	65.6	72.9	82.4	83.9	98.2	100.0	99.6	106.1	112.0	119.9	123.5
USA (¹)	10 136	13 799	16 743	18 609	22 870	24 361	19 177	N/A	N/A	N/A	N/A
Index	41.6	56.6	68.7	76.4	93.9	100	78.7	N/A	N/A	N/A	N/A
EC:											
Production at constant prices	1 131	11 438	11 831	11 743	12 538	12 205	12 066	12 957	13 534	13 943	14 348
Index	92.9	93.7	96.9	96.2	102.7	100	98.9	106.2	110.9	114.3	117.5
Value added at current price (²)	2 086	2 260	2 589	2 794	2 837	2 818	2 898	3 091	2 859	3 035	N/A
Index	74	80.2	91.9	99.2	100.7	100	102.8	109.7	101.5	107.7	N/A
Investment at current price (³)	338	1 182	438	445	540	443	468	540	N/A	N/A	N/A
Index	76.3	266.8	98.9	100.5	121.9	100	105.6	121.9	N/A	N/A	N/A

(¹) Census of Manufactures and Eurostat estimates.

(²) Excluding Portugal; 1988-89 excluding United Kingdom.

(³) Excluding Spain and Portugal; 1984-87: excluding Greece.

(⁴) Estimated.

Source: Eurostat (Inde)

Table 11
Fruit and vegetables, processing and conserving
Forecasts

(million ECU)	1989	1990	1991/90 (% change)	1992/91 (% change)
Production at constant prices	13 943	14 348	2.5	2.2

Source: Prometeia Calcolo Srl

Written by: Prometeia Calcolo S.r.l.

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The deep-frozen and frozen products industry has been rapidly growing and it is expected to grow further in the years to come. The consumption of potatoes and meat, in particular, has been rapidly increasing in volume. Industrial structure is divided between multinational producers and a large number of local producers; the competition of distributors, promoting their own trademarks, is becoming more and more important.

Sector definition

This sector includes a great variety of products processed by means of preservation at low temperature. Frozen products, in order to be safely preserved, must reach this temperature very rapidly. The products subject to this treatment are: vegetables and potatoes, fish, meat (poultry in particular), fruit, oven products and prepared food. Deep-frozen products, being horizontal products, are classified according to different NACE/codes. The main NACE groups are:

- ❖ Transformation/freezing of meat (NACE 412.21);
- ❖ Freezing of vegetables and fruits (NACE 414.1);
- ❖ Freezing of fish and other sea products (NACE 415.1).

Consumption

In 1989 the EC consumed about 5.5 million tonnes of frozen products (see table 1). In the last years consumption has been slowly but steadily increasing. In the EC the most widely consumed deep frozen products are vegetables (about 26% of total consumption in 1989), potatoes (19.5%), fish (14.5%), and poultry

(14.5%). The levels of consumption significantly vary from country to country, both in total and in single production. The highest level of per capita consumption is reached in Denmark (accounting for 34 kilos per capita), whereas the lowest is reached in three Southern European countries: Italy (5.9 kilos per capita), Portugal (5.7 kilos) and Greece (5.7 kilos). However, in most European countries the consumption levels reach 15-20 kilos per capita. Consumption of frozen products requires two conditions to be met: first of all the availability of domestic freezers and, more recently, that of microwaves ovens which are particularly suited for frozen products. Among the EC countries, horizontal or vertical freezers are mostly used in Denmark, Holland and the U.K. (about 80% of families own a freezer), whereas microwaves ovens are mostly used in the U.K. (48% of families), Germany (27%) and France (21%). The advantages of frozen food compared to fresh food is the possibility of fast cooking and the possibility to consume out of season products, particularly vegetables. This favours consumption in those countries where some fresh vegetables are not avail-

able and where a high percentage of women are out of work.

If consumption of each product is analyzed, it can be seen that this varies from country to country, reflecting different habits and different reasons for the use of frozen products. Even if it is not easy to make comparisons (because of the different classifications adopted), in Italy, France and the U.K. the most consumed products are vegetables, whereas in Spain it is fish, in Germany and Denmark poultry and in Holland potatoes and meat. The consumption level of frozen potatoes is high in all Northern European countries with the exception of Denmark. In some countries, like Italy and Spain, the percentage of consumed frozen meat and poultry is still low.

Industry structure

Precise data on the production of frozen goods are not available. Extra-EC imports account for a significant share of consumption, especially of fish (coming from the Scandinavian countries and Iceland in particular) and meat. In general, the production of deep-frozen food is divided among a group of leader enterprises, mostly multinational and a large group of domestic enterprises, which often produce with distributors trademarks. Among multinational enterprises, the leaders are Nestlé and Unilever. Only the largest domestic enterprises are able to support a distribution network at a national level, whereas small producers have to use already existing networks. Table 3 shows the largest producers in the EC. The situation in some countries will be analysed in more detail in the following paragraphs.

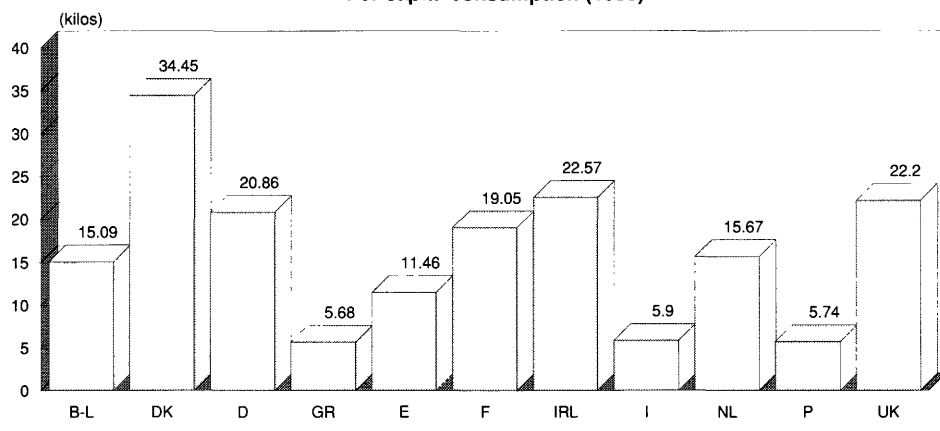
In Germany production accounts for more than 750 000 tonnes, i.e. more than 40%

Table 1
Deep-frozen products
Consumption

(x 1000 tonnes)	1983	1984	1985	1986	1987	1988	1989 (*)
EC	3 596	3 745	4 181	4 455	4 949	5 150	5622
Belgique/België and Luxembourg	75	N/A	90	104	128	149	170
Danmark	127	135	147	161	166	177	186
BR Deutschland	994	1 059	1 124	1 202	1 256	1 279	1 364
Hellas	39	43	46	53	54	57	60
España	152	166	180	207	431	447	517(?)
France	630	688	824	883	1 002	1 064	1 297
Ireland	65	69	74	75	77	80	83
Italia	220	241	260	300	320	339	356
Nederland	211	206	212	213	225	231	252(?)
Portugal	40	44	47	55	56	59	62
United Kingdom	1 043	1 094	1 177	1 202	1 234	1268	1275(?)

(*) Estimated
(?) Poultry estimated
Source: 1983-88 Consumer Europe, 1989 Swiss Frozen Food Industry

Figure 1
Deep-frozen products
Per capita consumption (1988)



Source: Consumer Europe

Table 2
Consumption of frozen food products in 1989 for some EC countries

(x 1000 tonnes)	DK	D	E	F	I	NL	UK
Vegetables	31.7	249.7	166.0	305.4	185.0	42.6	334.1
Potatoes	15.0	287.4	30.2	387.1	45.6	77.6	208.9
Fish	14.2	104.9	225.8	212.8	48.8	11.9	150.9
Meat	19.5	122.9	30.8	162.0	11.8	77.1	209.6
Poultry	38.4	336.0	32.6	41.9	11.7	15.4	235.0
Ready Meals	38.8	85.8	31.2	17.5	15.0	27.1	N/A
Others	28.7	177.6	N/A	170.2	37.8	N/A	136.1
Total	186.3	1 364.3	516.6	1 296.9	355.7	251.7	1 274.6

Source: Swiss Frozen Food Industry

of consumption is covered by imports. Importers are about 200 and producers are 90. The most important producers are Langnese-Iglo, created by an agreement between Unilever and Nestlé which accounts for 35% of sales, and the Oetker group. Distributors trademarks account for

about 10% of the market share. In France intra-EC imports, account for about 35% of the market share. Vegetables mainly come from Belgium and Luxembourg, potatoes from Holland and fish from the Northern countries. France also exports vegetables preserved at a low temperature. Producers

Table 3
Deep-frozen products
Major company rankings in the EC (1) (2)

Belgique/Belgié/ Luxembourg	Danmark	BR Deutschland	España	France	Ireland	Italia	Nederland	Portugal	United Kingdom
Pisiere & Zonen Unilever Distributors' own label Van den Abvele McCain Nestlé	Danforel Esperen Export Poul Agnar	Unilever Oetker Pickenpack Schottke	Pescanova Nestlé Delfin Alimentos del Atlantico Frio Condal	Nestlé Ortiz- Mirko Distributors' own label Unilever	Unilever Nestlé Poldy's fresh food	Unilever SME Frigodaunie	Unilever Nestlé Kannermer land Ouwehand Holdings	Nestlé Pescanova Neopesca Sopeixo Teixere	Unilever United Biscuits Nestlé Distribu- tors own label

(1) Country rankings provided when feasible; otherwise ranking in alphabetical order

(2) Greece excluded

Source: Food for thought

are about 500, most of them having a regional or local activity. Producers account for half of the market share and another 10% is covered by commercial trademarks. Nestlé being the leader along with the trademark Findus, accounts for about a quarter of the market. The second leader is Ortiz-Mirko, a branch of the Compagnie du Froid Alimentaire, which sells with the Vivagel trade-mark; these two are followed by Bonduelle (specialized in canned vegetables) and by the branch of Unilever, Cogesal's Iglo. In the United Kingdom the main trademark is Birds Eye (Unilever) which in 1989 accounted for 30% of the market share. Distributors' trademarks increased their market share from 29% to 38% in the period 1983-89. In Italy the market is dominated by Findus, a subsidiary of Unilever. In 1989 it accounted for nearly 60% of the market share. In the last years also national producers have made their appearance in the market; among these the most important is Surgela by Italgel (SME group). In Italy the distributors trademarks are not very important because the distribution system is highly fragmented. In Spain the market is dominated by fish consumption. Accordingly the leadership of the market is held by Pescanova, a fish producer which in 1989 ac-

counted for about 25% of the market share. This firm is also a supplier of other frozen products, particularly vegetables. Retail distribution is a critical point for development of the sector. The presence of medium and large distribution units, like supermarkets, encourages the development of the sector, by reducing distribution costs and allowing a great variety of products to be distributed. On the other hand, however, distribution firms increase the competition with the main producers creating their own trademarks and employing small producers to whom they guarantee the use of an efficient distribution network.

Outlook

In the EC market there is still room for development in the frozen-food industry. In countries where consumption is still rather low an increase in consumption may derive from the creation of certain conditions such as a less fragmented distribution system and the increasing use of freezers and micro-wave ovens. At the same time producers will have to adapt their product to the consumption habits of the different countries. In the countries where the consumption of frozen-food products are already high, some product categories such as pre-prepared foods are likely to increase their

share in the market. The competition between producers' and distributors' trademarks will also lead to wider choice and lower prices for the consumers.

Written by: Prometeia Calcolo Srl

The EC flour milling industry annually produces more than 24 million tonnes of wheat and rye flour and exports about 10% of its production. 75% of flour production is used in bread making. Flour consumption has been stable during the 1980's. This industry was reorganised during recent years and this trend is expected to continue in the future.

Current situation

The flour sector is a part of the grain-milling processing sector, which also includes bran-making, seeds and grain-milling husking. Since 1987, the EC soft wheat production increased from 63.9 million tonnes to about 74 million tonnes in 1990.

The largest wheat-producing country is France which accounts for about one third of total production and cultivated areas.

Grain-milling production at current prices increased by 3.5% per year over the period 1986-1989 and apparent consumption by 2.7% per year. Employment decreased by 4300 people, from 42 200 to 37 900 units. EC production accounted for 24 million tonnes of flour in 1989.

Consumption

Flour is mainly used in the production of bread, biscuits and sweets and in the manufacturing of pastes and starches.

More than 85% of flour is sold directly to small and industrial bakeries, biscuit, cake and rusk manufacturers, while bread production alone covers 75% of flour uses.

The significant decrease in bread consumption which occurred in the last decade, is now limited and only concerns some Southern European countries like Spain, Portugal and Greece. Families direct consumption, accounts for a small percentage of flour

uses. According to Food for Thought estimates, in the EC the per capita consumption of flour amounted to 5.2 kilos in 1988, showing values varying from 1.7 kilos in Spain to 15 kilos in Ireland.

Production

In 1989 in the EC 24 million tonnes of flour have been produced in 3400 mills, with an average production of about 7000 tonnes per mill. In the last twenty years the number of mills significantly decreased from 11.000 in 1970 to the present number. There are still many differences in the levels of production.

A comparison between the various countries shows that the average production per mill ranges from 45.000 tonnes in the U.K. to 4.000 tonnes in Spain. The largest producing countries (France, Italy and Germany) present a low average production per mill, accounting for 5.000 tonnes in Italy and France and for 7.000 in Germany. Low productivity of the milling industry in many countries is the result of two factors: there are several small enterprises, working with old mills and having a low milling capacity, and there is the problem of surplus, which characterises the EC flour industry (in 1989 it amounted to about 10 million tons). The ongoing process of reorganisation is supported by technologi-

Table 1
Flour
Main indicators ⁽¹⁾, 1980-89

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Apparent consumption	7 934	8 311	8 755	9 396	9 797	9 576	9 458	9 527	10 213	10 260
Net exports	495	666	650	192	589	694	436	395	322	728
Production ⁽²⁾	8 429	8 977	9 405	9 588	10 386	10 270	9 894	9 922	10 535	10 988
Employment (number) ⁽³⁾	30 712	32 899	31 822	30 503	30 132	28 415	42 193	40 683	39 295	37 890

⁽¹⁾ 1980 EC9; 1981-85 EC10.

⁽²⁾ Excluding Luxembourg; 1980-82 and 1984 estimated for Belgium.

⁽³⁾ Excluding Luxembourg; 1980-85 estimated for Belgium; 1980-83 estimated for the Netherlands; 1985-89 estimated for Denmark.

Source: Eurostat (Inde, Comext)

cal innovations; the introduction of new systems for the processing control allows production to be superior in quality and less expensive after transformation.

Among the most important innovations are computerised operative systems and on-site laboratories for the quality control, i.e. measuring protein content, humidity and bread-making elasticity.

Trade

The volume of intra-EC trade remains low but it is growing by an average rate of 12% per year. It increased from 109 000 tonnes in 1976 to 415 000 tonnes in 1988. The achievement of the single European market at the end of 1992 may further improve intra-EC flour trade, particularly in view of reductions in the transportation costs. At the moment, due to the high costs for transportation, Belgium, the Netherlands, Germany and France, which have common borders, account for 82% of the intra-EC flour trade.

The largest importer is the Netherlands, which in 1988 imported about 37% of the total intra-EC trade (154 000 tonnes). Exports to third countries play a very important role in the stabilization of the internal market. In 1989 about 10% of the flour processed by the EC millers was exported to third countries (about 2.5 million tonnes). France alone exported 1.3 million tonnes. About 70% of the EC flour exports went to

Table 2
Flour
Destination of flour consumed in home country, 1989

(%)	Biscuit & rusk bakeries	Household manufacturers confectioners	Flour	Other uses
Belgique/België	90.5	7.5	1.6	0.2
Danmark	83.0	⁽¹⁾	17.0	0.0
BR Deutschland	73.0	14.0	8.0	5.0
España	78.6	16.3	1.8	3.3
France	69.1	15.2	5.1	10.6
Ireland ⁽²⁾	72.0	13.0	15.0	0.0
Italia	82.0	17.0	⁽³⁾	⁽³⁾
Luxembourg ⁽²⁾	90.0	10.0	⁽³⁾	⁽³⁾
Nederland	67.5	14.5	0.5	17.5
Portugal	89.0	10.0	1.0	0.0
United Kingdom	63.4	16.5	5.7	14.4

⁽¹⁾ Biscuit and rusk bakeries include manufacturers and confectioneries

⁽²⁾ 1988 figures.

⁽³⁾ Household manufacturers and confectioners include flour and other uses.

Source: National Milling Associations

Table 3
Flour
Number of mills and total flour production, 1989

	Number of mills	Total flour prod. (x 1000 tonnes)	Average prod. per mill (x 1000 tonnes)
EC ⁽¹⁾	3 422	24 347	7.11
Belgique/België	64	990	15.50
Danmark	14	307	21.90
BR Deutschland	599	4 169	7.00
Hellas ⁽²⁾	180	1400	7.80
España	503	2 059	4.10
France	961	4 879	5.10
Ireland ⁽³⁾	8	179	22.40
Italia	897	4 560	5.10
Luxembourg ⁽²⁾	4	46	11.50
Nederland	55	1 144	21.00
Portugal	49	640	13.06
United Kingdom	88	3 974	45.20

⁽¹⁾ Approximate figures because of absence of 1989 data for Greece, Ireland and Luxembourg.

⁽²⁾ 1986 figures for total flour production and for average production per mill.

⁽³⁾ 1988 figures.

Source: National Milling Associations

Africa, whose largest market is to be found in Egypt. The European Community, accounting for 60% of the international wheat flour trade (which is equal to 1 bil-

lion ECU in sales), is by far the world exporting-leader, followed by the USA with a world market share of 21%.

Table 4
Flour
Principal importers of wheat flour from the EC, 1981/82-1988/89

(x 1000 tonnes)	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 ⁽¹⁾
World total	7 545	6 829	7 775	6 237	5 745	6 749	6 510	6 300
Egypt	1 761	2 210	2 635	2 330	1 994	1 804	1 864	1 702
Libya	364	409	447	370	465	439	525	501
Cameroon	114	62	85	49	163	191	326	266
Yemen A.R.	143	187	258	257	222	250	271	203
Sudan	251	137	385	384	264	258	240	277
Syrian A.R.	177	210	68	115	65	388	228	226
Cuba	343	234	546	219	228	237	250	262
China	N/A	N/A	222	145	144	401	236	180
Vietnam	237	273	265	89	50	221	248	200
Iraq	191	327	348	252	213	179	98	70

⁽¹⁾ Provisional figures.
Source: International Wheat Council

Table 5
Flour
Exports of wheat flour, 1981/82-1988/89

(x 1000 tonnes)	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 ⁽¹⁾
World total	7 545	6 829	7 775	6 237	5 745	6 749	6 560	6 300
EC ⁽²⁾	4 381	3 069	3 932	3 853	3 523	3 442	3 886	3 631
plus TPA ⁽³⁾	680	620	258	179	84	74	82	33
USA	1 070	1 590	1 937	1 003	1 103	1 704	1 273	1 351
Canada	535	401	730	428	355	481	437	417
Japan	125	149	319	210	308	431	387	395
USSR	200	200	200	200	100	250	200	200
Australia	130	124	78	81	50	82	90	112
Other	423	676	321	283	222	285	205	161

⁽¹⁾ Provisional figures.
⁽²⁾ 1981/82-1984/85 EC10.
⁽³⁾ Secondary trade (flour processed from imported wheat).
Source: International Wheat Council med in home country, 1989

Outlook

Flour production is heavily dependant on climatic conditions which can affect cereal crops. Therefore it is difficult to make forecasts for this sector. However, consumption is expected to remain stable.

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Revised by: Prometeia Calcolo Srl.

The industrial baking sector is rapidly developing with respect to both technology and demand. New technologies are expected to have a major influence on productivity and the process of concentration of firms. Demand is also rapidly growing due to changes in consumption habits and in the retail sector.

Sector definition

Nace 419.1 includes exclusively large-scale breadmaking (bread factories) with delivery to retailers, hotels, etc. Small-scale bakeries, cakes, rusk and biscuit making are not treated in this monograph. In order to define the industrial baking sector two elements must be taken into account. The first concerns demand; bread is in competition with many bakery by-products. The second element concerns production; industrial bakeries are in competition with small-scale bakeries.

The bread industry has recently undergone important technological changes due to the introduction of new kinds of product analysis, extrusion and other processes.

Among the areas which are expected to develop in the future are new fermentation, freezing and preservation techniques, computerisation and data processing.

National regulatory environments do not follow closely the evolution of the bread industry. This causes the share of the industrial baking sector in total bread production to be notably different among the various countries. In Italy, for instance, the marketing of frozen bread is forbidden.

Since it plays an important role in the processing of agricultural products, the bread industry mainly depends on the supply of high quality raw materials, particularly of cereals.

Consumption

The analysis and estimate of industrial bread consumption must be related to the wider context of the evolution of bread consumption in general.

In all countries, bread consumption has decreased over the past few decades but, since the beginning of the 1980's, it has remained stable. Quantities consumed are decreasing by an average rate of 1.3%.

This decrease in consumption is mainly in some Southern European countries like Spain, Greece and Portugal, whereas in other countries bread consumption is stable, or slightly increasing. This effect may be partly explained through the various policies and public relation campaigns addressing consumers and adopted by the European Community, which are aimed at emphasising the nutritional value of bread.

In Italy per capita consumption amounts to about 85 kilos per year: average values reach about 66 kilos per year.

In the wider context of bread consumption in general, industrial bread and baked goods have acquired a greater importance thanks to three main factors; the increasing urbanisation of the population; the introduction and spread of new distribution systems, the changes in the shopping and nutritional habits. In particular, the fast-food sector may favour industrial bread

producers through an increase in sales and the same may happen to the production and marketing of deep frozen baked goods.

Production

The share of small scale artisan bakeries is in constant decrease everywhere, even if it shows different rates in the various countries. This is due to consumption and shopping habits and to the regulatory environment. In France the market share of artisan bread accounted for 94% in

1970 and reached 83% in 1990. In the period 1980-89, the baking industry turnover increased by an average rate of 8.4% per year in Germany, by 7.6% in France, 5.3% in the Netherlands and by 3.4% in the United Kingdom. The trends in these countries may explain most of the increase in the EC turnover. Bread represents 18% up to 70% of the market of industrial bakeries. In other countries the share of industrial bread in the total bread production remains small. At the same time, the European bread industry is facing a process of concentration which is partly due to the introduction of new preservation techniques and transport systems, to cope with the increasing power of retailers, also tending towards concentration. However, the need for investment and the pressure on profit margins give many problems to the financial structure of firms. The industrial baking sector is particularly concentrated in the U.K., where the largest producers (British Bakeries and Allied Lyons) account for 50% of the total production. In France, out of a total number of 181 firms only three accounted for more than 60% of the market share in 1989, a percentage far superior to that of commercial trademarks (26%). In Germany there are about

Table 1
Baking industry
Bread consumption in the EC, 1983-88 (1)

(x 1000 tonnes)	1983	1984	1985	1986	1987	1988
EC	21 965	21 753	21 572	21 372	20 899	20 573
Belgique/België	764	804	786	817	814	827
Danmark	141	154	150	151	150	152
BR Deutschland	3 422	3 605	3 612	3 652	3 639	3 693
Hellas	515	469	415	370	333	303
España	1 817	1 524	1 273	1 002	833	710
France	3 682	3 692	3 709	3 720	3 617	3 390
Ireland	203	203	204	205	204	205
Italia	7 805	7 700	7 827	7 949	7 729	7 710
Luxembourg	17	17	17	17	17	18
Nederland	815	844	854	869	871	885
Portugal	229	195	167	142	122	106
United Kingdom	2 555	2 546	2 558	2 478	2 570	2 574

(1) Includes all bread-type products
Source: Euromonitor

100 firms, but artisan production is still widespread. In Italy the largest producer is Barilla, whereas the first four leading firms account for about 20% of production. In all countries, personnel costs within the bread industry regularly increase. The costs of intensive manpower and of technological progress are forcing firms to increase their degree of automation in production, which requires significant investments. However, with respect to productivity, different kinds of improvements can be seen in the various countries. In the United Kingdom, employment within bread factories is decreasing; in 1988, the same level of turnover as that of Germany

was obtained by employing one third less manpower.

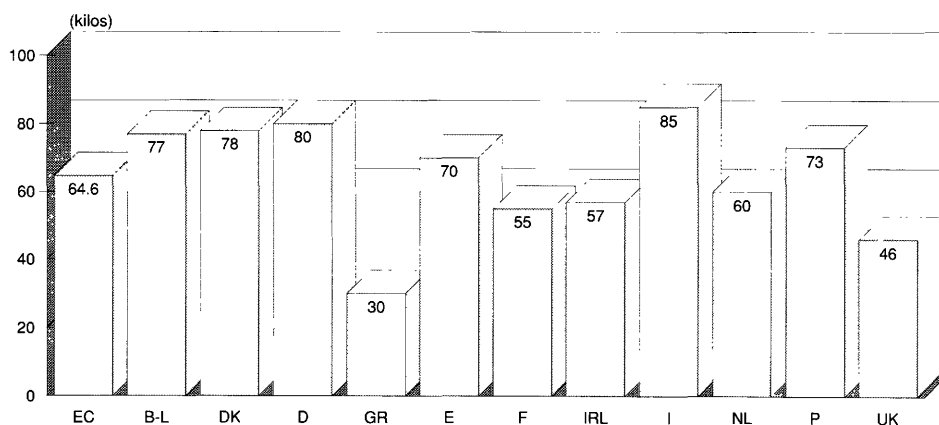
Trade

As far as NACE 419.1 category is concerned, no data about trade is available. However, some figures can be given about the whole bread and flour confectionery sector (NACE 419). In 1989 intra-EC trade amounted to about 1 500 million ECU and has tripled its size since 1980. Trade with third countries is relatively low: in 1989 extra-EC exports reached a level of 610 million ECU and extra-EC imports a level of 183 million ECU.

Outlook

In the bread industry larger production

Figure 1
Baking industry
Bread per capita consumption, 1988



Source: AIBI

Table 2
Baking industry
Turnover

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total	5 713.7	6 525.5	6 802.0	7 015.6	7 417.9	7 876.9	8 171.0	8 702.5	9 364.3	9 827.2
Belgique/België	N/A	169.5	156.6	154.1	154.0	155.9	159.8	N/A	N/A	177.7
Danmark	N/A	N/A	N/A	68.9	68.1	74.2	73.8	78.7	84.7	88.5
BR Deutschland	1 673.8	1 767.4	1 909.1	2 044.9	2 206.8	2 369.4	2 538.7	3 018.1	3 218.7	3 452.0
France	675.1	741.3	763.3	767.9	823.8	899.1	969.8	1 099.3	1 170.3	1 310.6
Nederland	927.0	998.0	1 120.0	1 186.0	1 248.0	1 278.0	1 370.0	1 435.0	1 435.0	1 488.0
United Kingdom	2 437.8	2 849.3	2 853.0	2 793.8	2 917.2	3 100.3	3 058.9	3 071.4	3 455.6	3 310.4

Source: AIBI

Table 3
Baking industry
Employment in EC bread factories

	1986	1987	1988	1989
Total	174 828	175 746	178 301	181 560
Belgique/België	3 808	3 786	3 891	4 328
Danmark	1 100	1 100	1 200	1 200
BR Deutschland	59 500	62 500	66 100	68 502
France	14 420	14 760	14 810	16 130
Ireland	9 600	9 400	9 300	9 300
Nederland	38 400	38 200	38 000	38 100
United Kingdom	48 000	46 000	45 000	44 000

Source: AIBI

units can be expected. There is still a growing demand for special types of bread, such as those which can be kept, and the same applies to the demand for fresh goods, where the trend will be maintained. Semi-processed and deep frozen baked goods will become more popular thanks to fermentation and freezing techniques. In this respect, future prospects for the bread industry are good. Takeovers and share holdings among firms from other countries will lead to an increase in international relationships and connections. Collaboration with other firms, both domestic and foreign, will give new opportunities for joint ventures. The cre-

ation of a single European market in 1992 will have a significant effect on the entire bread industry, which is looking forward to free trade in its products and to dismantling the few remaining barriers.

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Revised by: Prometeia Calcolo Srl

These sectors employ about 270.000 people in 2000 firms. Production and consumption increased during 1988, both in quantity and in value. The growth trend of quantities has been significant during all the 1980's, particularly in the case of chocolate and sugar confectionery, a sector which is rather concentrated.

Description of the sector

The industry here described can be divided into three main subsectors, that are characterised by different trends in consumption and competition.

The first one is the biscuits (sweet and salted) and rusk making sector; the second one is the confectionery industry, including both the sugar and the cocoa confectionery and the third one is the chocolate industry, which includes three types of products: chocolate for professional use; chocolate in tables or sticks for consumption; and chocolate confectionery (the latter being equally classified in the second sector). As the sources of data do not make a distinction between the confectionery and the chocolate industry, one can only make qualitative comments on the trends characterising the last two subsectors.

In the sector a large amount of internally produced raw materials, such as sugar, flour, milk powder and butter is used. In 1988 the industry was responsible for a total sugar consumption of 2.1 million tonnes and for a total flour consumption of 1.9 million tonnes.

The European chocolate industry also consumes the largest amount of cocoa in the world. In 1988, cocoa import reached

over 870 000 tonnes (expressed in beans equivalent).

As a whole, the sector shows a trend of constant growth both in the produced and consumed quantities.

The turnover value was of 25 billion ECU in 1988, which is not far from the 1985 figures (24 billion ECU).

This is mainly due to price trends and to important differences among countries and subsectors.

Consumption

Biscuit consumption increased from 3077 thousand tonnes in 1985 to 3276 in 1988, with an average growth by 2.1% per year; in the same period, the average growth of the consumption of chocolate and sugar confectionery was by 4.8%, passing from 3257 thousand tonnes in 1985, to a level of 3759 thousand tonnes in 1988. Important differences in the per capita consumption can be seen among countries. Generally speaking, the Mediterranean countries consume fewer sweetened products than the Northern countries. As far as the biscuit industry is concerned, Spain, Portugal and Greece show the lowest per capita consumption, with 4 or less kilos per year, an amount which is not increasing.

Rusk making, biscuits, chocolate and sugar confectionery

Table 1
Biscuits / rusks
Main indicators (¹), 1980-88

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
Turnover (²)	5 400	6 000	6 600	7 200	8 150	9 100	9 000	9 500	9 500
Apparent consumption	2 587	2 598	2 640	2 775	2 856	3 077	3 120	3 203	3 276
Net exports (³)	98	118	135	135	149	171	160	155	162
Intra EC Trade	274	297	309	325	362	391	427	480	645
Production	2 685	2 716	2 775	2 910	3 005	3 248	3 280	3 358	3 438

(¹) 1980 EC9; 1981-85 EC10
(²) million ECU
(³) Exports extra-EC - Imports extra-EC
Source: caobisco

Table 2
Cocoa/chocolate/sugar confectionery
Main indicators (¹), 1980-88

(tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
Turnover (²)	9 100	9 300	10 300	11 350	13 150	15 000	14 100	14 500	15 500
Apparent consumption	2 936	2 900	3 028	2 923	3 037	3 257	3 315	3 556	3 759
Net exports (³)	123	137	156	195	218	243	226	230	257
Intra EC Trade	450	460	480	530	570	600	635	700	692
Production	3 059	3 037	3 184	3 118	3 255	3 500	3 541	3 786	4 016

(¹) 1980 EC9; 1981-85 EC10
(²) million ECU
(³) Exports extra-EC - Imports extra-EC
Source: caobisco

Table 3
Biscuits / rusks
Per capita consumption trends

(kilogrammes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (¹)	9.12	9.14	8.81	10.00	8.60	8.70	8.70	9.50	9.30
Belgique/België, Luxembourg	9.80	10.20	10.50	10.50	10.30	10.10	11.30	12.90	13.70
Danmark	8.70	8.40	9.00	9.60	9.70	8.80	8.70	9.20	9.70
BR Deutschland	5.80	5.70	5.70	6.10	6.40	6.30	6.30	6.20	6.00
Hellas	N/A	N/A	4.50	N/A	4.50	4.50	4.00	4.00	4.00
España	N/A	N/A	N/A	N/A	N/A	N/A	4.10	3.90	4.20
France	9.80	9.80	10.00	11.30	11.80	12.00	12.50	13.10	12.10
Irland	11.60	11.00	10.60	10.40	10.40	10.40	10.40	11.10	11.00
Italia	8.10	8.50	9.30	9.70	10.30	10.70	10.10	10.30	10.80
Nederland	15.30	15.60	15.40	15.50	15.40	16.70	16.50	17.50	17.50
Portugal	N/A	N/A	N/A	3.50	3.30	2.90	2.70	3.20	3.20
United Kingdom	13.00	13.00	13.10	13.30	13.00	13.00	13.30	13.10	15.30

(¹) 1980-81 excluding Greece, Spain and Portugal; 1982 excluding Spain and Portugal; 1983 excluding Greece and Spain; 1984-85 excluding Spain.
Source: caobisco

Table 4
Cocoa/chocolate/sugar confectionery
Per capita consumption trends

(kilogrammes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (¹)	4.25	4.30	4.40	4.40	4.55	4.75	4.40	4.40	4.35
Belgique/België, Luxembourg	4.90	4.85	5.20	5.45	5.55	5.70	5.85	5.50	5.40
Danmark	4.70	5.00	4.90	5.20	5.30	5.60	5.50	5.40	5.40
BR Deutschland	6.15	6.15	5.90	5.90	6.30	6.05	6.05	6.50	6.70
Hellas	0.85	0.90	0.90	0.90	0.95	0.95	1.10	1.10	1.10
España	N/A	N/A	N/A	N/A	N/A	N/A	2.30	2.10	1.90
France	3.40	3.35	3.50	3.40	3.40	3.30	3.35	3.40	3.50
Irland	5.65	5.75	6.05	5.65	6.00	6.45	6.10	5.70	5.90
Italia	1.55	1.55	1.50	1.60	1.60	1.70	1.80	1.75	1.95
Nederland	5.10	5.15	5.10	5.25	5.40	6.20	5.60	5.85	5.35
United Kingdom	5.75	5.90	6.20	6.20	6.40	6.60	6.45	6.50	6.00

(¹) Excluding Portugal; 1980-85 excluding Spain
Source: caobisco

Among the Mediterranean countries, Italy proves an exception, since its per capita consumption of biscuit is higher than the European average. The Netherlands show the highest level (17.50 kilos per year).

Consumption is increasing in Belgium, The Netherlands and United Kingdom, whereas in other countries it is stable or decreasing.

As for the consumption of chocolate and sugar confectionery, Italy, Spain and Greece show a per capita consumption of

less than 2 kilos per year; in the other countries, with the exception of France, the per capita consumption is by more than 5 kilos per year.

Per capita consumption increased until 1985; since then it has been stable or slightly decreasing.

Production

In the period 1985-1988, the biscuit production grew by a rate of 1.9% and the chocolate and sugar confectionery by a rate of 4.7% per year. Nevertheless, the turnover figures for both subsectors prove more stable, due to a decrease in prices occurred in the same period. However, the turnover figure for 1988 shows an important increase in the chocolate and sugar confectionery sector.

Table 5
Biscuits/rusks and cocoa/chocolate/sugar confectionery
Number of companies and employees, 1988

	Companies	Employees
EC	2 059	270 184
Belgique/België	150	10 175
Danmark	61	6 542
BR Deutschland	261	52 465
Hellas	14	2 500
España	430	12 500
France	440	33 163
Ireland	38	4 230
Italia	230	40 000
Nederland	150	15 100
Portugal	55	3 509
United Kingdom	230	90 000

Source: caobisco

The most important biscuit producers are United Kingdom, Italy and France.

These three countries covered the 62% of the EC production in 1988. Chocolate and sugar confectionery are mainly produced in Germany (27% of the EC production in 1988), United Kingdom (21%), France (14.9%) and the Netherlands (11.9%).

The biscuit and confectionery subsectors are less concentrated while the chocolate industry is rather concentrated and it is controlled by few industrial groups, both in Europe and in the rest of the world.

The European market for chocolate is shared among Nestlé (20% of the European market), Masterfoods (17%), Jacobs-

Suchard (13%), Ferrero (10%) and Cadbury (9%). In 1988 the whole sector included 2059 companies employing about 270 thousand people.

Marketing capabilities will play an increasing role in the competition whose two main issues regard the introduction of new products, the stressing of the healthy and energetic qualities of the sweetened products, and the management of relationships with an increasing concentrated distribution.

Trade

In 1988, the trade among the EC countries reached a total amount of 1337 thousand tonnes, which represent 18% of

Table 6
Biscuit production by country

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (*)	2 685	2 716	2 775	2 910	3 005	3 248	3 280	3 358	3 438
Belgique/België	130	135	140	150	155	150	160	180	181
Danmark	75	80	90	100	110	115	115	105	99
BR Deutschland	320	330	340	365	395	405	415	435	411
Hellas	41	41	41	41	41	41	41	41	41
España	N/A	N/A	N/A	N/A	N/A	150	160	160	162
France	585	585	580	600	605	605	610	635	579
Ireland	24	25	24	24	24	22	24	22	22
Italia	460	485	525	560	595	615	600	605	641
Nederland	280	285	285	285	290	320	320	335	345
Portugal	N/A	N/A	N/A	35	35	30	30	35	34
United Kingdom	770	750	750	750	755	795	805	805	924

(*) 1980-82 EC10; 1983-84 excluding Spain
Source: caobisco

Table 7
Cocoa/chocolate/sugar confectionery
Production by country

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
EC (1)	3 059	3 037	3 184	3 118	3 255	3 500	3 541	3 786	4 016
Belgique/België	160	167	178	190	196	212	219	219	242
Danmark	53	52	54	58	61	62	59	60	61
BR Deutschland	895	939	1035	936	987	986	988	1034	1102
Heilas	21	26	26	21	22	26	28	28	28
España	N/A	N/A	N/A	N/A	N/A	190	196	195	256
France	455	458	467	441	447	446	473	536	598
Ireland (2)	49	41	43	47	48	48	43	107	109
Italia	227	222	224	217	229	226	238	261	266
Nederland	376	362	364	403	427	446	452	475	479
Portugal (3)	N/A	N/A	N/A	5	4	6	5	5	5
United Kingdom	824	770	794	801	834	853	841	868	871
USA	1582	1647	1723	1844	1935	1963	1947	2080	1897
Japan	279	295	297	295	285	288	293	300	324

(1) 1980-82 EC10; 1983-84 excluding Spain

(2) 1980-86 excluding semi-finished cocoa products

(3) Sugar confectionery production figures are not available

Source: caobisco (for EC countries) and Statistical Bulletin of IOCCC (for Japan)

production. In the biscuit sector the amount was 645 thousand tonnes, which corresponds to the 19% of total production.

In the cocoa-chocolate and sugar confectionery sector, the total amount was 692 thousand tonnes, which represents the 17% of total production.

Exports to the third countries reached a total amount of 567 thousand tonnes,

which represents the 7.5% of production; this is divided as follows: 230.000 tonnes (6.7% of total production) in the biscuit sector; 337.000 tonnes (8.4%) in the cocoa-chocolate and sugar confectionery sector.

Exports are mainly destined for EFTA countries (162.000 tonnes), US (113.000 tonnes), the Gulf countries (40.000 tonnes), Canada (47.000 tonnes) and Japan (27.000 tonnes). Imports from

the third countries represent about 148 thousand tonnes.

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Revised by: Prometeia Calcolo Srl

Sugar plays an important role in the common agricultural policy, employing about 65,000 people directly and with almost 400,000 procurers delivering beet to 188 factories during the 1988/89 season throughout the Community. The EC sugar sector has a market organisation since 1968. The EC, the world's largest producer and second largest consumer of sugar, exports large quantities of this product outside the EC. This activity is carried out under a strict policy of self-finance and budgetary neutrality.

Industry Structure

The European sugar industry is a heavy-investment, highly concentrated sector with a very small number of companies (85 in 1989 in the whole European Community, compared with 203 in 1960). Sugar manufacturing is complemented by considerable refining activity, particularly in the United Kingdom, France, and Portugal.

Production

All the EC countries with the exception of Luxembourg produce sugar beet. The total area over which beet is cultivated increased in the 1970's, reaching a peak of 2.2 million ha in 1981-82, but has since decreased to a stable level of approximately 1.8 million ha, 3% of the total amount of usable arable land in the EC. The sugar contained in the 90 to 95 million tons of sugar beet produced is extracted, stored and packaged in a small number of high-capacity factories (188 in the EC) that operate 24 hours a day during the harvest season. In the last twenty years the number of such factories has considerably diminished going from 77 to 50 in France, from 59 to 38 in Germany and from 74 to 31 in Italy, the three main

European producing countries. As the manufacturing period varies from approximately 70 days in Italy to 123 days in the U.K., the EC sugar industry is currently able to receive and process more than 1.3 million tonnes of beet per day.

Sugar production depends on climatic conditions as well as on the area under cultivation, although the effect of such conditions has been greatly diminished by progress in seed quality. Yields (in tonnes of sugar per hectare), however, can vary by as much as 30% in the same country from one year to another. Moreover, yields vary greatly across countries: in France, Germany and Italy, its level is respectively 10.4, 7.2 and 5.5 tons per hectare. After reaching a peak of 16 million tons in 1981-82, EC sugar production has stabilized between 13 and 14 million tons in the last years. In 88/89 62% of the EC production of white sugar was accounted by France (4.3 million tons), Germany (2.8 million tons) and Italy (1.5 million tons). The EC is the world's largest producer, well ahead of India (9.5 million tons), the USSR (8.9 million tons), Brazil (8.6 million tons) and Cuba (8.1 million tons).

Table 1
Sugar
Main indicators 1981/82 - 1989/90 (1)

(x 1000 tonnes)	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90 (2)
Total consumption (2)	11 124	10 872	10 291	11 017	10 839	11 116	10 693	10 706	N/A
Net Exports (2)	3 935	3 467	2 661	2 034	2 632	2 783	3 589	3 564	N/A
Production (3)	16 078	15 109	12 268	13 598	13 636	14 105	13 208	13 921	13 946
Employment (1000)	77	76	73	74	71	69	66	N/A	N/A

(1) Crop year from 1st July to 30th June; except for employment, the unit is the white sugar equivalent
 (2) Including the added sugar contained in the products
 (3) Quota + C Sugar
 (*) Estimated on the basis of Eurostat data.
 Source: Eurostat

Consumption

The EC total and per capita sugar consumption has decreased in the last years because of demand saturation and competition of new sweeteners (i.e. isoglucose, synthetic products). However, EC remains the second largest consumer of sugar in the world (10.9% of world consumption) after USSR. Per capita consumption varies greatly across European countries according to national eating habits. In particular, per capita consumption of sugar is lower in the Mediterranean regions than in the northern countries.

Trade

According to the terms of Protocol III of the Lome Convention, the EC is committed to import 1.3 million tonnes of

sugar annually from African, Caribbean and Pacific (ACP) countries for an indeterminate period, the prices paid to the producers being based on current intervention Community price. Since the EC is more than self-sufficient in sugar, these tonnages increase the quantities available for exports. The EC is the second largest exporter of sugar in the world after Cuba. The breakdown of exports by geographical zone for 1987 was 37% for Africa, 40% for the Near and Middle East, 9% for Asia and 11% for non-EC European countries. Since 1980 the current value of exports extra-EC has diminished by -17.3% whereas the value of intra-EC trade has increased by 162% reaching a similar level as the former.

Organisation of the sugar market in the EC

The production of sugar in the European Community is based essentially on a quota system coupled with a mechanism of guaranteed minimum prices (or intervention prices) for the sugar produced within the basic quotas. Each EC country is allocated a national quantity of white sugar distinguished between an A quota and B quota corresponding to expected internal consumption plus a safety margin. The total EC A and B quotas amount respectively to 10 540 000 and 2 288 588 tonnes. Both A and B quotas sugar can be sold at the minimum guaranteed price, in contrast with sugar produced over and above these

Table 2
Sugar
Areas under beet

(x 1000 hectares)	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
EC (1)	2 242	2 098	1 905	1 936	1 886	1 899	1 840	1 832
Belgique/België	135	130	120	123	125	118	111	114
Danmark	76	76	72	74	73	69	67	68
BR Deutschland	464	429	403	423	415	399	384	386
Hellas	42	41	38	28	43	44	28	34
España	220	260	249	209	178	195	182	190
France	610	533	462	501	464	421	420	417
Ireland	35	34	36	36	35	38	37	32
Italia	320	257	222	217	225	277	283	271
Nederland	133	137	117	129	131	137	128	123
United Kingdom	207	201	186	196	197	201	200	197

(1) Excluding Luxembourg and Portugal.
 Source: CEFS

Table 3
White sugar production (1)

(x 1000 tonnes)	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
EC	16 061	15 125	12 280	13 616	13 679	14 156	13 243	14 276
Share of world production (%)	16	15	13	14	14	14	13	14
Belgique/België	1 030	1 105	782	839	943	938	804	924
Danmark	480	537	346	547	530	499	388	505
BR Deutschland	3 392	3 303	2 507	2 894	3 155	3 192	2 731	2 765
BR Deutschland from molasses	2	9	19	19	19	19	19	19
Hellas	323	296	298	218	317	287	182	216
España	1 026	1 144	1 240	1 074	903	1 020	1 005	1 186
France-Metropolitan	5 130	4 446	3 562	3 957	3 953	3 410	3 649	4 350
France-D.O.M. (2)	317	309	263	300	296	305	303	328
D.O.M. cane sugar (2)	0	16	8	9	15	14	14	15
Ireland	168	222	197	222	174	186	223	195
Italia	2 048	1 180	1 244	1 275	1 244	1 719	1 718	1 479
Nederland	1 044	1 130	743	934	915	1 239	979	988
Portugal	9	9	9	5	4	5	2	2
United Kingdom	1 092	1 419	1 062	1 323	1 211	1 323	1 226	1 304

(1) These figures are not the same as the Eurostat data due to methodological differences.

(2) DOM: Départements d'outre mer (French overseas departments) are Guyana, Guadeloupe, Martinique, Réunion.

Source: CEFS.

Table 4
Number of sugar and refinery companies

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
EC (1)	115	110	106	99	98	96	93	88	82
Belgique/België	10	10	10	10	10	10	10	9	7
Danmark	2	2	2	2	2	2	2	2	1
BR Deutschland	30	29	29	23	23	22	21	17	17
Hellas	1	1	1	1	1	1	1	1	1
España	15	13	11	10	7	7	7	7	7
France	34	34	34	34	34	33	31	31	31
Ireland	1	1	1	1	1	1	1	1	1
Italia	18	16	14	14	16	16	16	16	13
Nederland	2	2	2	2	2	2	2	2	2
United Kingdom	2	2	2	2	2	2	2	2	2

(1) Excluding Luxembourg and Portugal
Source: CEFS

Table 5
Sugar
Consumption 1988/89 (1) (2)

	EC	B-L	DK	D	GR	E	F	IRL	I	NL	P	UK
Total consumption												
(x 1 000 tonnes)	10 706	412	194	2 096	275	950	2 006	135	1 520	560	270	2 288
(kg / capita)	32.8	40.1	37.8	34.0	27.5	24.3	35.1	38.3	26.4	37.8	26.2	40.0
- of which:												
Losses (x 1 000 tonnes)	8	0	5	0	0	0	0	0	0	0	3	0
Animal feed (x 1 000 tonnes)	12	0	1	4	2	0	0	0	0	0	0	5
Industrial uses (x 1 000 tonnes)	96	10	0	35	0	30	6	0	0	15	0	0
Human consumption												
(x 1 000 tonnes)	10 590	402	188	2 057	273	920	2 000	135	1 520	545	267	2 283
(kg / capita)	32.4	39.2	36.6	33.3	27.3	23.5	35.0	38.3	26.4	36.8	25.9	39.95
- of which:												
Sugar contained in imported products												
(x 1 000 tonnes)	1 373	170	34	424	16	36	269	57	110	199	9	49
(kg / capita)	4.2	16.6	6.6	6.8	1.6	0.9	4.7	16.2	1.9	13.4	0.9	0.8
Direct and sugar contained in home-made products												
(x 1 000 tonnes)	9 217	232	154	1 633	257	884	1 731	78	1 410	346	258	2 234
(kg / capita)	28.2	22.6	30.0	26.5	25.7	22.6	30.3	22.1	24.5	23.4	25.0	39.1

(1) Provisional figures

(2) White sugar equivalent; DOM included.

Source: Eurostat

Table 6
Production quotas by country
White sugar equivalent

(tonnes)	Quota A	Quota B	Quota B/ Quota A (%)
EC	10 540 000	2 288 588	21.7
Belgique/België	680 000	146 000	21.5
Danmark	328 000	96 629	29.5
BR Deutschland	1 990 000	612 313	30.8
Hellas	290 000	29 000	10.0
España	960 000	40 000	10.0
France	2 560 000	759 233	30.0
D.O.M. (1)	436 000	43 600	10.0
Ireland	182 000	18 200	10.0
Italia	1 320 000	248 250	18.8
Nederland	690 000	182 000	26.4
Portugal	55 000	5 455	10.0
Port/Azores	9 000	909	10.0
United Kingdom	1 040 000	104 000	10.0

(1) D.O.M. Départements d'Outre Mer: Guyana, Guadeloupe, Martinique, Réunion.
Source: CEFS

tonnages, for which there are no price or disposal guarantees and which is exported to third countries at the producer's risk.

Export financing

The costs relating to exporting surpluses of A and B sugar are entirely financed by the sugar sector. Nevertheless, re-exporting costs of the equivalent imported tonnage from ACP countries are handled by the EAGFF.

The cost is financed through production contributions from growers (60%) and manufacturers (40%):

- ♦ a levy of 2% of the intervention price for quota A sugar;

- ♦ a levy of 39,5% of the intervention price for quota B sugar;
- ♦ when the product of these two levies is insufficient, a special levy must be collected so that the export account can be balanced.

Because manufacturers are compelled to export non-quota sugar at their own expenses, and because C sugar falls into this category, there is no levy on its production. By way of example, in 1987-88, of the total exports (4 139 000 tonnes) quota sugar accounted for 3 375 000 tonnes and non-quota sugar for 818 000 tonnes.

Table 7
Sugar
EC trade in current value (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Exports extra-EC (2)	1 635.2	2 429.0	1 631.9	1 371.3	1 226.9	1 063.4	1 039.6	1 118.1	1 053.4	1 351.7	1 951.7
Index (2)	153.8	228.4	153.5	129.0	86.7	100.0	92.5	99.5	93.7	120.3	183.5
Imports extra-EC	925.8	901.9	934.9	900.5	1 149.9	1 011.3	1 153.2	1 102.1	1 160.6	1 203.2	1 256.5
Index (2)	91.6	89.2	92.5	89.0	113.7	100.0	106.5	101.7	107.1	111.1	124.2
X/M	1.8	2.7	1.8	1.5	1.1	1.1	0.9	1.0	0.9	1.1	1.5
Trade intra-EC	437.5	440.7	571.9	638.2	744.0	634.5	584.1	622.8	971.7	1 147.2	N/A
Index (2)	71.8	69.5	90.1	100.6	117.3	100.0	89.4	95.4	148.8	175.6	N/A
Share of total (%)	22.9	16.9	26.5	34.2	38.9	40.0	38.6	41.4	56.4	54.7	N/A

(1) 1980 EC 9; 1981-85 EC 10.

(2) Taking into account changes in EC membership.
Source: Eurostat (Comext).

Table 8
Sugar
Production and value added

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production at current prices										
EC (1)	8 210	9 551	9 989	11 805	13 105	12 764	12 448	12 563	12 439	13 424
Index	64.3	74.8	78.3	92.5	102.7	100	97.5	98.4	97.5	105.2
USA (2)	4 247	5 057	4 650	5 313	6 230	5 773	4 433	N/A	N/A	N/A
Index	73.6	87.6	80.6	92	107.9	100	76.8	N/A	N/A	N/A
EC										
Production at constant prices (1)	10 387	11 303	11 200	12 486	13 299	12 764	12 215	12 237	12 084	12 756
Index	81.4	88.6	87.8	97.8	104.2	100	95.7	95.9	94.7	99.9
Value added at current prices (2)	2 293	2 562	2 427	3 236	3 306	3 245	3 212	3 606	3 492	3 785
Index	70.7	79	74.8	99.7	101.9	100	99	111.1	107.6	116.6
Productivity	42.62	43.17	37.98	36.05	36.36	40.56	37.69	43.73	45.45	50.64
Index	105.1	106.4	93.6	88.9	89.6	100	92.9	107.8	112.1	124.9

(1) Excluding United Kingdom and Luxembourg.

(2) Census of Manufactures and Eurostat estimates.

(3) Excluding Luxembourg and United Kingdom; the Nederland, Ireland and Danmark estimated.

Source: Eurostat (Inde).

Table 9
Sugar
Forecasts

(1000 tonnes)	1989	1990	1991/90	1992/91
			(% change)	(% change)
Production	13 921	13 946	0.2	0.8

Source: Prometela Calcolo SRL
Data by Country White Sugar Equivalent

CEFS: Comité européen des Fabricants de Sucre

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Ice-cream is produced in every country of the EC. In 1989 total production amounted to 1 879 million litres. In the period 1983-89 the production has grown at an average rate of 7.3%.

The external balance of the EC was slightly positive in 1988 as extra-EC net exports grew considerably but international trade in ice-cream with respect to the EC remains limited (see table 1).

The industry employs about 25 000 people in the EC.

Consumption

In spite of considerable efforts made by producers, ice-cream sales still depend on weather conditions. Such a dependence affects both the seasonal pattern and the total annual consumption. Per capita consumption, in general, is higher in the northern countries of the EC, because competition from fresh fruits or cheese is less intensive there. Moreover, in some countries the consumption share of artisan production of ice-cream is important. Consumption is quite stable or decreasing in Belgium, Denmark, Ireland, the Netherlands and the United Kingdom. The other EC countries, mostly in southern Europe, saw a rise in their consumption. An important factor for the ice-cream industry is that nearly every household is now equipped with a refrigerator and freezer. This allowed the industry to progress from "impulse products", consumed when and where they are bought, to family products, stored and consumed at home. This led to a certain decrease in the seasonal pattern of sales and a growth in sales volume through the 1980s.

Production

Total production of industrial ice-cream has been marked by an increasing trend since the early 1980s. The United Kingdom was the main producer in 1989, with the Federal Republic of Germany, Italy and France following close behind. Altogether, these four countries accounted for about 75% of total production in 1989.

The firms size is highly variable, the production going from 30 million litres per firm in Italy, to 5 million in Ireland. In several countries of the EC (France, Germany, Luxembourg, the United Kingdom), ice-cream is still considered as a pure "dairy product".

This implies that national legislation rules out the use of vegetable fat.

This explain the variable proportion of butter and vegetable fat inputs in different countries (see table 5). Another important difference among countries, is the importance of artisan industry which represents a significant part of the market in some Member States (Germany, Italy and Spain) (see table 2).

Trade

Compared to total production in the EC, trade figures are relatively low. Once again, however, the situation varies from country to country. The main importers are the Netherlands, France and the Federal Republic of Germany and the volume of imported

Table 1
Industrial ice cream
Main indicators, 1986-89 (1)

(x 1 000 litres)	1986	1987	1988	1989
Apparent consumption	1 530 295	1 544 443	1 657 162	N/A
Net exports (2)	- 11 790	11 670	38 728	N/A
Production	1 518 505	1 556 113	1 695 890	1 879 228

(1) Excluding Portugal.
(2) Nimex figures translated into litres: 1kg = 2 litres.
Source: Euroglaces.

Table 2
Industrial ice cream
Shares of production and consumption of EC countries

	% production	% consumption	Per capita consumption (2) (litres)	Share of artisan ice cream (2) (%)
EC (1)	100.0	100.0	6.7	N/A
Belgique/België, Luxembourg	6.8	3.2	6.8	28
Danmark	3.2	2.6	8.6	N/A
BR Deutschland	21.0	22.1	7.6	27
Hellas	2.5	3.0	4.9	N/A
España	8.6	8.6	4.2	16
France	13.5	15.9	4.7	N/A
Ireland	1.4	1.3	6.1	N/A
Italia	17.6	17.9	8.7	67
Nederland	3.1	4.2	6.3	34
United Kingdom	22.3	21.2	7.4	20

(1) Excluding Portugal.
(2) Industrial and artisan ice cream.
(3) Estimated
Source: Euroglaces

Table 3
Production of industrial ice cream

(x 1 000 litres)	1983	1984	1985	1986	1987	1988	1989
EC (1)	1 228 740	1 373 880	1 402 750	1 518 505	1 556 113	1 695 890	1 879 228
Belgique/België, Luxembourg	81 600	78 300	80 260	110 000	110 000	115 000	130 000
Danmark	39 240	39 800	40 810	52 000	49 400	54 400	57 900
BR Deutschland	325 000	295 000	306 000	330 480	325 310	356 400	381 800
Hellas	41 370	41 370	44 060	44 060	44 360	42 140	45 000
España	N/A	97 930	103 980	116 350	130 710	146 800	160 630
France	197 410	192 190	192 850	209 160	212 213	228 150	270 618
Ireland	26 100	25 580	23 280	23 280	24 400	24 000	26 000
Italia	225 000	213 750	225 510	223 255	227 720	298 000	317 280
Nederland	43 700	39 960	40 000	48 920	48 000	52 000	60 000
United Kingdom	249 320	350 000	346 000	361 000	384 000	379 000	430 000

(1) Excluding Portugal.
Source: Euroglaces

ice-cream grew in 1987, except in the case of Germany. In the Netherlands the portion of consumption accounted for by imports is the highest (46% in 1987). On the export side, all the countries, with the exception of the Netherlands, have improved their

position, the volume of ice-cream exports having grown in 1987: Belgium and Luxembourg (47%), Denmark (86%), Germany (59%), Spain (185%), etc. Belgium and Luxembourg are by far the main exporters, with about 70% of their pro-

duction going for exports.

Outlook

Given that ice-cream sales depend for the most part on weather conditions and seasonal factors, it is difficult to make forecasts for this sector. There is no reason to be-

Table 4
Industrial ice-cream
The top 10 enterprises in alphabetical order

France Glaces Findus	France	Paris
Frisko Sol	Danmark	Skovlunde
Helados Y Congelados	España	Vitoria
Italgel	Italia	Parma
Langnese Iglo	BR Deutschland	Hamburg
Lyons Maid Ltd	United Kingdom	Greenford
Ortiz - Miko	France	St. Dizier
Sagit Spa	Italia	Roma
Schöller GmbH	BR Deutschland	Nürnberg
Wall's Ice Cream	United Kingdom	Walton

Source: Euroglaces

Table 5
Industrial ice-cream
Main inputs, 1988

(tonnes)	Butter (100% fat)	Sugar	Vegetable fat
EC (*)	37 215	142 850	19 870
Belgique/Belgie, Luxembourg	3 550	8 450	1 400
Danmark	16 400	28 500	
BR Deutschland	2 800	3 660	
Hellas	1 640	14 600	3 200
España	6 460	24 500	
France	1 000	5 000	
Ireland	525	2 340	570
Italia	3 200	25 000	6 000
Nederland	990	4 800	700
United Kingdom	650	26 000	8 000

(*) Excluding Portugal.
Source: Euroglaces

lieve that consumption will radically change in the coming years and the seasonal factor will probably remain. On the other hand, international trade in ice-cream is still developing and one can assume that this upward trend will continue in the immediate future.

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Revised by: Promoteia Calcolo Srl

The EC animal compound feed sector consists of two distinct industries, the animal farm feed and the pet food industry. In 1990 the animal farm feed industry enjoyed an increase in demand and supply levels. However, the industry is characterised by over-capacity problems and the internal market for compound feed is saturated.

The situation of the pet food industry is totally different. Industrial production of pet food in Europe began in the late 1950's. In a quarter of a century, the prepared pet food industry made its appearance as a new and important sector of the food processing industry. It has proved to be one of the most dynamic processors of agriculture materials, giving added value to materials and surpluses not taken up by the food and foodstuff industries.

Description of the sector

The major product lines of the animal farm feed industry are:

- ❖ cattle feed;
- ❖ pig feed;
- ❖ poultry feed;

As for the pet food industry, it covers three major product categories:

- ❖ dog food;
- ❖ cat food;
- ❖ food for other pets, such as birds, fish, etc.

Current situation

By distinguishing the farm animal feed industry from the pet food industry, it has to be noticed that one of the major problems characterising the former is over-capacity,

as feed mills work at 30% to 75% of their production capacity.

Competition is extremely strong, thus leading to tight profit margins.

One of the reasons for this situation is that a number of countries outside the EC, which used to be important markets for livestock products, became self-sufficient or even started exporting, thus increasing the supply in the EC market.

The rapid growth of the livestock market has stimulated an even larger increase in the production capacity of the compound feed industry.

New feed mills were built and the capacity and efficiency of the existing ones increased.

Table 1
Compound feed
Main indicators ('), 1980-90

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Apparent consumption	15 535	16 821	18 275	20 177	21 123	20 422	23 301	23 967	26 089	27 362	N/A
Net exports	190	471	410	335	536	404	322	229	127	161	N/A
Production	15 725	17 292	18 685	20 512	21 659	20 826	23 623	24 196	26 216	27 523	28 668
Employment (number (²))	85 832	83 335	80 840	79 207	77 790	73 933	85 811	88 105	88 481	88 280	N/A

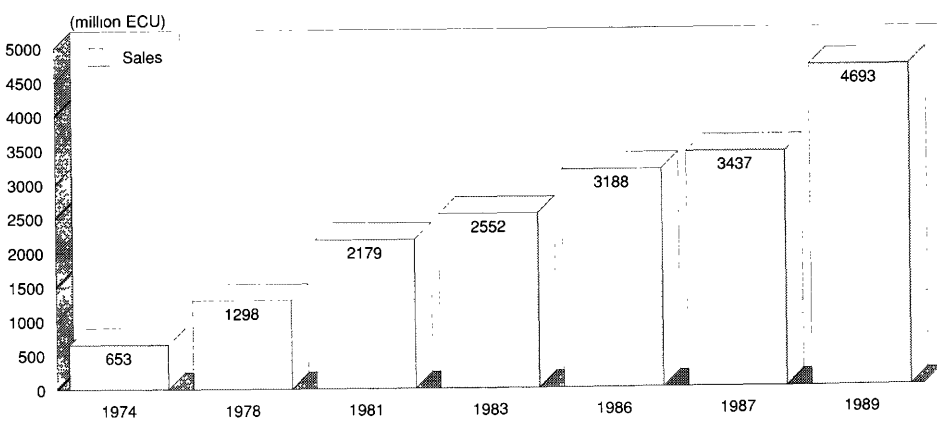
(¹) 1980 EC 9; 1981-85 EC 10.
(²) Excluding Luxembourg; 1983 for Greece estimated.
Source: Eurostat (Inde, Comext)

Feed companies have tried to react to the intense competition characterising the industry by developing new feed markets (fish feed), increasing product differentiation and implementing cost reductions, using new raw materials and adopting new technologies. Other patterns currently emerging in the industry concern a decrease of the ratio between market shares of private enterprises and co-operatives (this ratio is now around 65/35) and a growing integration between industrial feed and livestock production.

As for the pet food industry, the number of companies involved in the manufacture and marketing of prepared pet food increased during the last years in line with the remarkable growth of sales (see figure 1).

There are around 250 production units of various sizes, involved in the preparation of pet food, located in all regions of the Community.

Figure 1
Pet food sales



Source: FEDIAF

Production and consumption

Since 1986 the EC demand for compound feed has increased by 5.5% a year in current terms, reaching a level of 27.5 billion ECU in 1989.

Over the same period, the demand for prepared pet food showed a higher annual growth rate, 13.8%, reaching 4.7 billion Ecu in 1989. In this year, consumption of dog and cat food accounted for 57.5% and 39.7% respectively of the volume of the demand for pet food.

Since 1986 the current value of production of the Community animal compound feed industry increased by 5.2% a year, amounting to 28.7 billion ECU in 1990.

A breakdown by country of the Community value of production shows that in 1989 France had the largest production share, 20.7%, corresponding to 5.7 billion ECU, followed by the UK, (15%, 4.1 billion

ECU), Spain (14.2%, 3.9 billion ECU), The Netherlands (13.6%, 3.8 billion ECU) and Germany (13.2%, 3.6 billion ECU).

By examining the specialisation patterns of

Table 2
Pet Food
Breakdown of sales, 1989

(thousand tonnes)	
Dog food	
Tinned	1 157
Other	720
Cat food	
Tinned	1 106
Other	191
Foods for birds, fish and other pets	91
Total	3 265

Source: FEDIAF

production of different livestock classes feed in these countries, it emerges that in 1989 Germany was the main supplier of cattle feed, (accounting for 20.7% of the Community volume of production in this sub-sector), followed by The Netherlands (15.2%), France (13.8%) and the UK (13%).

On the other hand, in the same year The Netherlands accounted for 22.2% of the EC production of pig feed, Germany and France being the other main suppliers with 16% and 15.1% production shares respectively.

Finally, in 1989, France, Italy and Spain were the most important producers of poultry feed, accounting for 23.4%, 15.5% and 13.9% respectively of the Community volume of production in this subsector.

Table 3
Compound feed output per livestock class, 1989 (1)

(thousand tonnes)	B	DK	D	E	F	IRL	I	NL	P	UK	EC(1)
Cattle feed	1 469	1 620	6 667	2 100	4 437	1 424	4 500	4 900	938	4 190	32 245
Pig feed	2 883	2 401	5 434	4 350	5 134	462	2 500	7 550	1 179	2 120	34 013
Poultry feed	958	521	3 318	3 850	6 468	351	4 300	3 300	1 107	3 500	27 673
Other	133	137	965	1 200	1 478	182	900	500	123	720	6 338
Total	5 443	4 679	16 384	11 500	17 517	2 419	12 200	16 250	3 347	10 530	100 269

(1) Excluding Greece and Luxembourg
Source: FEFAC

Looking at the recent trends of these products supply, it emerges that since 1986 the Community production volume of cattle feed has decreased by 2.7% although the EC supply of this product was slightly higher in 1989 than in 1988. More in detail, Germany and The Netherlands 1989 production levels were 5.8% and 7.5% lower than the previous year, whereas the supply from France and the UK was 12.7% and 1.9% respectively higher than in 1989. As for pig feed, the Community production has increased by 4.1% since 1986, although displaying a modest fall in 1989, while the supply of poultry feed increased by 5% since 1986. Among the products of the compound feed industry are milk replacers for calves, whose level of supply has decreased by 15.9% since 1986 and reached a level of about 1 800 000 tonnes in 1989;

France and The Netherlands account together for about 70% of total milk replacer production. The most important raw materials used in the production of animal farm feed are the following: manioc, sweet potatoes, grain offal, corn gluten feed, maize feed meal, brewery distillers, citrus pulp and beet pulp. Meat by-products, fish by-products, cereals and vegetables are used to produce pet food.

Trade

Extra-EC trade balance of compound feed has constantly enjoyed a surplus during the 1980s. However, limiting the analysis to EC12, it is possible to notice that the trade surplus decreased from 281 million ECU in 1986 to 161 million ECU in 1989 as a result of a 18% growth of exports accompanied by a 59% increase of imports over the period 1986-89. In 1989, the main exporting

countries were Germany, Denmark and The Netherlands accounting for 34%, 18.3% and 12.7% of the Community value of external exports, respectively. In the same year Germany accounted for 31.3% of the Community external imports, the other main importing country being the UK (19.7% of EC imports).

Intra-EC trade flows are quite substantial in the compound feed industry, amounting to 2 billion ECU in 1989, almost two and half times the value of external exports in the same year.

In 1989 the major exporting countries to the EC were France (27.2% of the Community exports value), The Netherlands (24.8%) and Germany (18.9%), whereas the major European importing countries were Italy (accounting for 20.4% of the Community imports value) followed by Bel-

Table 4
Compound feed production (1)

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Cattle feed	28 073	28 634	29 181	31 451	32 611	32 137	33 145	31 610	32 205	32 245
Index (2)	97.5	99.5	101.4	109.3	101.5	100.0	103.1	98.4	100.2	100.3
Pig feed	27 067	27 020	26 658	26 709	31 944	31 571	32 660	33 345	34 498	34 013
Index (2)	104.0	103.9	102.5	102.7	101.2	100.0	103.5	105.6	109.3	107.7
Poultry feed	20 732	21 540	21 993	21 691	25 936	26 011	26 361	26 888	27 419	27 673
Index (2)	99.4	103.3	105.4	104.0	99.7	100.0	101.4	103.4	105.4	106.4
Other	3 318	3 511	3 563	3 632	4 958	4 524	4 749	4 530	5 583	6 338
Index (2)	98.8	104.5	106.1	108.1	109.6	100.0	105.0	100.1	123.4	140.1
Total	79 190	80 704	81 397	83 492	95 354	94 343	96 915	96 373	99 705	100 269
Index (2)	100.1	102.1	102.9	105.6	101.2	100.0	102.8	102.3	105.8	106.4

(1) 1980-89 EC 9

(2) Taking into account changes in EC membership
Source: FEFAC

Table 5
Compound feed
EC trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Exports extra-EC	468	744	755	737	908	799	696	604	733	822
Index (1)	61.5	93.1	94.5	92.3	113.6	100.0	85.6	74.3	90.2	101.1
Imports extra-EC	295	281	371	406	420	425	415	396	580	661
Index (1)	72.0	66.2	87.3	95.6	98.8	100.0	93.7	89.4	130.9	149.2
X/M	1.59	2.65	2.04	1.82	2.16	1.88	1.68	1.53	1.26	1.24
Trade intra-EC	740	875	1 011	1 138	1 263	1 370	1 432	1 453	1 772	2 013
Index (1)	55.9	63.8	73.8	83.1	92.2	100.0	100.9	102.3	124.8	141.8
Share of total (%)	61.8	54.3	57.8	60.8	59.1	63.7	67.9	70.9	70.2	70.6

(1) Taking into account changes in EC-membership
Source: Eurostat (Comext)

gium (17.7%), and The Netherlands (14.6%).

Since 1986, the value of intra-Community trade flows has increased by 40.6%.

The EC is a net exporter of pet food, and its trade balance with third countries showed a positive value of around 300 million ecu in 1989 (see table 7).

Outlook

The internal market for compound feed is saturated and offers little prospect for further expansions. Being a product with low value added, long distance exports do not

make much economic sense. Export refunds granted under the CAP system are insufficient to build up real and regular markets in third countries.

Demand for different compound feed products may vary according to the consumption trends of the livestock class to which such products are directed. On this ground, it is worth noticing that consumption per head of beef and veal is expected to decrease over the next decade, whereas poultry meat consumption is expected to increase significantly up to a

level close to that of beef consumption.

In general, a stronger market orientation should emerge through a greater involvement of the feed industry in integrated projects to produce specified animal products. Downstream activities should receive more emphasis and have a greater impact on product specification, production circumstances and also on margins.

Concepts of quality control through the total production chain should be more widely applied, resulting in co-makership between subsequent stages of the produc-

Table 6
Compound feed
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Production at current prices:											
EC	18 588	20 326	21 813	23 565	25 652	24 820	23 623	24 196	26 216	27 523	28 668
Index	74.9	81.9	87.9	94.9	103.4	100.0	95.2	97.5	105.6	110.9	115.5
USA (1)	10 356	13 565	16 025	18 582	21 313	20 595	15 396	N/A	N/A	N/A	N/A
Index	50.3	65.9	77.8	90.2	103.5	100.0	74.8	N/A	N/A	N/A	N/A
EC:											
Production at constant prices	24 110	23 820	23 998	24 367	24 863	24 820	24 430	26 150	27 304	27 692	N/A
Index	97.1	96	96.7	98.2	100.2	100	98.4	105.4	110	111.6	N/A
Value added at current price	2 563	2 783	3 044	3 175	3 360	3 543	3 412	3 685	3 956	4 263	N/A
(2) Index	72.3	78.6	85.9	89.6	94.8	100.0	96.3	104.0	111.7	120.3	N/A
Investment at current price	470	431	422	411	467	453	577	570	N/A	N/A	N/A
(3) Index	103.8	95.1	93.2	90.7	103.1	100.0	127.4	125.8	N/A	N/A	N/A

(1) Census of Manufactures and Eurostat estimates
(2) Excluding Portugal
(3) Excluding Spain and Portugal; 1983-87 excluding Greece
Source: Eurostat (Inde)

Table 7
Pet food
External trade

(million ECU)	Imports	Exports	Net exports
1988	711.3	939.1	227.8
1989	843.1	1 135.2	292.1

Source: Eurostat (Comext)

tion chain. This tendency may also lead to specialisation and vertical integration.

A continuous consolidation and concentration of companies seeking a stronger market position and increased market shares is expected. The long-term value of takeovers and mergers, however, will be determined by how well companies structures and market approaches match.

In spite of the larger organisations, the feed companies tend to maintain their regional or national character to address the specific nature of the many regional or national markets.

As for the pet food industry, there are still possibilities for further development: some estimates predict that over the next few years the growth trend will be close to 40% in the European Community.

Nowadays 50% of EC households own at least one domestic animal, and the proportion of owners feeding their pets on bought prepared food is increasing.

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Miscellaneous products: soluble coffee, tea and vinegar

Compared to the world total coffee consumption, soluble coffee consumption represents about one-third of the world green coffee consumption. The EC, the US, Japan and Australia are at present the largest instant coffee consumers. Soluble coffee consumption inside the EC stabilised at around 98 024 tonnes in 1988 after peaking at about 100 137 tonnes in 1984. The UK represents about half of EC soluble coffee consumption, followed by France and the Federal Republic of Germany (17 000 and 11 500 tonnes respectively). Consumption per capita is the highest in the UK at 0.86 kg and to a lesser extent in Ireland (0.57 kg/head). In the EC as a whole, the consumption per capita averaged 0.30 kg in 1988 and has remained stable over the past few years.

Production

EC production of instant coffee grew slowly through the 1980s to reach 87 631 tonnes in 1987. Imports represent 17.6% of consumption, while only 8.7% production is exported.

The soluble coffee industry is based on heavy capital investment and high technology. Soluble coffee is one of the few processed products for which the principle of purity is fully implemented; the EC Directive on coffee and chicory extracts (77/436) stipulates that soluble coffee is to be obtained by extraction from roasted coffee beans, the only acceptable medium of extraction being water.

There are no soluble coffee factories in Denmark, Greece and Ireland. There is considerable trade between Member States.

Trade

Coffee is a commodity that represents a very important revenue for the countries of origin and there have been times when coffee ranked immediately after oil in the importing countries trade balance.

The coffee trade is subject to a complex regulation that affects both the green coffee and the soluble coffee.

The EC imports about 17 000 tonnes and exports around 8 000 tonnes of soluble coffee every year.

There is a 9% tariff quota on imports (in-

Table 1
Instant coffee
Main indicators, 1983-88

(tonnes)	1983	1984	1985	1986	1987	1988
Apparent consumption	96 801	100 137	97 039	96 079	97 006	98 024
Imports	25 163	23 859	23 634	17 605	17 051	N/A
Exports	6 175	6 258	8 295	8 360	7 676	N/A
Production	77 813	82 538	81 700	86 834	87 631	N/A

Source: Eurostat and AFCASOLE

countries which produce more coffee than the quantity covered by their export quotas compete for a share in non-member markets. This has resulted in prices that were half of those prevailing in the member market.

The rigidity of the quota allocation system

Table 2
Instant coffee Consumption, 1983-89

(tonnes)	1983	1984	1985	1986	1987	1988	1989
EC	96 881	100 131	97 141	96 326	97 006	98 024	N/A
Belgique/België, Luxembourg	1 271	1 251	1 257	1 318	1 296	1 344	1 390
Danmark	440	570	300	408	360	380	N/A
BR Deutschland	14 000	13 000	12 500	12 000	11 900	11 500	11 700
Hellas	3 500	4 500	3 357	3 470	3 180	3 180	N/A
España	8 500	8 500	8 500	8 700	8 900	9 430	N/A
France	14 300	16 100	16 400	16 200	16 300	17 000	N/A
Ireland	1 540	1 970	2 287	2 350	1 760	1 760	N/A
Italia	1 900	1 700	1 300	1 490	1 490	1 500	1 500
Nederland	1 400	1 400	1 440	1 590	1 530	1 530	N/A
Portugal	800	800	800	800	1 390	1 400	N/A
United Kingdom	49 230	50 340	49 000	48 000	48 900	49 000	N/A

Source: AFCASOLE

stead of the standard 18%) within the generalised system of preferences (GSP). As a consequence 15 400 tonnes are imported at half the duty rate.

The regulatory environment for the green coffee trade is more complex.

Coffee is subject to the International Commodity Agreement (ICA). This fact may have some repercussions on the supply of green coffee for processing.

Since national and local taste regulate manufactures (by blending coffees of different origins), availability is sometimes hampered by the ICA quota system.

The implementing body of the ICA, the International Coffee Organisation (ICO), is an intergovernmental organisation.

Its members are 50 coffee exporting countries, representing some 99% of world coffee production, and 24 importing countries (among others, all EC Members States), accounting for about 87% of world consump-

tion. Its main objective is to bring about a balanced supply-demand situation with stable prices. It achieves this mainly through a system of export quotas: the total annual volume of coffee allowed for export to members is limited, and is distributed to individual producing countries. Since exports to non-members (primarily countries in Eastern Europe and the Middle East) are not limited in volume,

has been a particular source of concern for the European coffee industry.

Changes in the consumption pattern could not be accommodated by an increase in the quota for those countries whose coffees were in demand.

This has recently contributed to excessive price differences between the two main types of coffees, i.e. Arabicas and Robustas. The ICO has been in existence

Table 3
Per capita consumption of instant coffee, 1983-88

(kilogrammes)	1983	1984	1985	1986	1987	1988
EC	0.30	0.31	0.30	0.30	0.30	0.30
Belgique/België, Luxembourg	0.13	0.12	0.12	0.13	0.13	0.14
Danmark	0.09	0.11	0.06	0.08	0.07	0.07
BR Deutschland	0.23	0.21	0.20	0.20	0.20	0.19
Hellas	0.35	0.46	0.34	0.35	0.32	0.32
España	0.22	0.22	0.22	0.22	0.23	0.24
France	0.26	0.29	0.29	0.29	0.29	0.31
Ireland	0.44	0.55	0.65	0.66	0.50	0.57
Italia	0.03	0.03	0.02	0.03	0.03	0.03
Nederland	0.10	0.10	0.10	0.11	0.10	0.10
Portugal	0.08	0.08	0.08	0.08	0.13	0.14
United Kingdom	0.87	0.89	0.86	0.84	0.86	0.86

Source: AFCASOLE

since 1962. The underlying treaties have regularly been renegotiated.

The ICA went into force in 1983. Since 3 July 1989, however, the quota system has been suspended as no agreement could be reached. This has led to a sharp decrease in coffee prices, which fell to their lowest level for 14 years (Robustas as well as Arabicas). The market is, thus, now governed by supply and demand, and prices are the same for all countries.

Tea

The net import of tea into the EC in 1989 was 215 874 metric tonnes. This is almost identical to the figure for 1988: 215 800 tonnes.

The import trend is now quite stable, after the fall in 1987.

The United Kingdom remains by far the most important consumer with a volume that has remained stable compared to 1988 and an unchanged share of 75,5% of total EC imports. UK consumption is now stable at a level of 162 861 tonnes, after a gradual decrease over the last 25 years (1977 consumption was about 200 000 tonnes).

The second largest importer is the Federal Republic of Germany (14 550 tonnes or 6,7%), closely followed by Ireland

(tonnes)	1985	1986	1987	1988
EC	1 551 704	1 537 300	1 645 341	1 629 724
Belgique/België, Luxembourg	101 247	81 624	88 668	82 220
Danmark	46 296	46 455	50 844	50 019
BR Deutschland	423 427	452 888	487 026	492 399
Hellas	20 292	12 500	21 361	22 200
España	133 390	149 092	147 198	141 468
France	275 750	281 515	297 020	303 001
Ireland	530	654	756	858
Italia	281 087	251 547	263 318	259 401
Nederland	144 750	141 203	155 465	150 731
Portugal	22 051	20 831	27 420	25 100
United Kingdom	102 884	98 991	106 265	102 327

Source: EUCA.

(10 607 tonnes 4,8%) and France (10 090 tonnes, 4,7%). The Netherlands takes 5th place with a share of 4,4%. The other countries import much smaller amounts. In most of the EC countries the import figures for 1989 have shown only limited changes compared to 1988. Future consumption is expected to show a moderate increasing trend.

Vinegar

The vinegar industry is an innovative sector. Over the past few years, development into quality products has become apparent in all the Community Member States. In 1989, production in the EC reached a volume of 450 million litres. This figure is 4,7% higher than the results for the previous year. Consumption grew by around

the same amount, but continued to lag behind production. Accordingly, a net export surplus of 23.9 millions litres was recorded. It should be emphasised that figures presented hereafter refer only to vinegar with 10% acidity and that Luxembourg, the Netherlands and Portugal have not been considered.

Production and consumption

In 1989, there were 170 vinegar producers in the European Community, concentrated mainly in Southern Europe and particularly in Italy (44) and Spain (32), but also in the Federal Republic of Germany (29) and France (25). In 1989, they produced total turnover of 219 million ECU. In 1989, average production per firm

Table 5
Import of tea into the EC, 1985-89

(tonnes)	1985	%	1986	%	1987	%	1988	%	1989 ⁽¹⁾	%
EC	208 837	100.0	225 802	100.0	195 142	100.0	215 800	100.0	215 874	100.0
Belgique/België, Luxembourg	1 295	0.6	1 498	0.7	1 214	0.6	1 300	0.6	1 587	0.7
Danmark	2 317	1.1	2 432	1.1	2 155	1.1	2 200	1.0	2 109	1.0
BR Deutschland	15 500	7.4	15 500	6.9	14 700	7.5	14 800	6.9	14 550	6.7
Hellas	300	0.1	300	0.1	300	0.2	300	0.1	400	0.2
España	734	0.4	719	0.3	730	0.4	740	0.3	750	0.3
France	9 154	4.4	10 036	4.4	9 148	4.7	10 155	4.7	10 090	4.7
Ireland	10 656	5.1	11 295	5.0	10 885	5.6	10 376	4.8	10 607	4.9
Italia	3 876	1.9	3 295	1.5	3 489	1.8	3 500	1.6	3 500	1.6
Nederland	9 361	4.5	9 429	4.2	9 725	5.0	9 500	4.4	9 190	4.3
Portugal	285	0.1	232	0.1	217	0.1	230	0.1	230	0.1
United Kingdom	155 359	74.4	171 066	75.7	142 579	73.0	162 699	75.5	162 861	75.4

⁽¹⁾ For Greece, Spain, Italy and Portugal: provisional figures
Source: CEFT (Comité Européen du Thé).

came to 2.66 million litres, i.e. slightly more than in 1988. This 1989 production was spread around the different countries of the EC as follows: Federal Republic of Germany 28.1%, France 27.2%, United Kingdom 14.1%, Italy 12.2%, Spain 9.1%, Belgium 4.0%, Denmark 3.5%, Greece 1.8% and Ireland 0.2%.

As referred to earlier, production of fermented vinegar in 1989 came to

4 520 481 hectoliters, of which 59.8% could be apportioned to distilled vinegar, which is produced mainly in the Federal Republic of Germany and France. Wine vinegar accounts for a share of 31.7% of total production, with Italy, Spain and Greece being the biggest producers of this type of vinegar. Of the remaining 8.5% of other types of vinegar, the largest share comes from the United Kingdom.

Vinegar consumption per inhabitant in the Community amounted to 1.4 litres, thus retaining the same level as the previous year. The highest consumption was recorded in Denmark (3.1 l) and the lowest in Ireland (0.4 l) and Italy (0.9 l). However, in the case of Italy, a considerable amount of vinegar is made from wine at home. Therefore, average consumption is actually higher than it appears.

Table 6
Vinegar
Main Indicators, 1986/89

(hundred litres)	1986	1987 ⁽¹⁾	1988 ⁽²⁾	1989 ⁽³⁾
Apparent consumption	3 922 538	3 837 844	4 147 521	4 201 266
Net exports	134 499	146 920	170 769	239 215
Production	4 057 037	3 984 764	4 318 290	4 520 481
Per capita consumption ⁽⁴⁾	1.4	1.3	1.4	1.4
Number of enterprises	150	152	171	170
Average production ⁽⁵⁾	27 047	26 215	25 253	26 591

⁽¹⁾ 1986-1987: Excluding Greece, Luxembourg, Netherlands and Portugal

⁽²⁾ 1988 Greece included

⁽³⁾ 1988 Greece included for production, number of enterprises and average production figures

⁽⁴⁾ Litres

⁽⁵⁾ Average production of fermented vinegar by company

Source: CIPV

The basic material needed for vinegar is alcohol, which is extracted by fermenting agricultural products such as wine, sugar beet, potatoes or fruits. This explains why the vinegar industry is an important buyer of wine. In 1989, about 1.4 million hectoliters of wine, 290 000 hectoliters of alcohol and 350 000 hectoliters of malt, fruit wine and other commodities were produced in the European Community. The use of distilled alcohol is decreasing in favour of wine and other basic materials such as cider, etc.

External trade

In 1989, EC imports came to 229,712 hectoliters, i.e. 7% more than in 1988. In Ireland and Belgium, imports corresponded to 55% of production, whereas this figure stood at between only 1% and 10% in the other EC Member States. In 1989, EC ex-

ports came to 468 927 hectoliters, signifying an increase of 27% compared to 1988. The Federal Republic of Germany exported 17.7% of production, Belgium 12.2% and Italy 11.6%. In the other Member States, a different picture can be seen, with the share of exports in total production reaching only 4 to 8% of production. The annual increase in turnover can be traced to an overwhelming extent to new products catering for a specific demand. In 1989, the eight EC Member States referred to here achieved a turnover which amounted to around 220 million ECU.

Legal system

The producers of fermentation vinegar are grouped together in national professional associations. In 1949, the same national associations came together to form the Permanent Committee of Vinegar

Table 7
Production of vinegar, 1980-89

(thousand hl)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC ⁽¹⁾	3 540	3 589	3 804	3 601	3 978	4 099	4 057	3 985	4 218	4 521
Belgique/België	102	125	167	190	137	154	171	164	168	182
Danmark	133	136	152	128	134	145	142	119	133	154
BR Deutschland	993	1 081	1 150	1 128	1 086	1 177	1 230	1 192	1 235	1 269
Hellas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	80
España	N/A	N/A	N/A	N/A	N/A	363	381	398	417	405
France	987	1 021	1 077	925	993	987	930	885	1 051	1 230
Ireland	13	13	12	12	12	10	9	10	9	8
Italia	522	522	550	550	541	526	540	535	535	550
Nederland	130	107	90	91	84	84	N/A	N/A	N/A	N/A
United Kingdom	661	584	606	579	628	636	638	663	702	635

⁽¹⁾ Excluding Greece, Luxembourg and Portugal; 1980-83 excluding Spain; 1986-89 excluding Netherlands
Source: CIPV

Producers (CPIV). At the present time, public discussion is concerned with the 1992 European Single Market. The Permanent International Vinegar Committee has asked the Commission to formulate an unambiguous distinction between fermentation vinegar made from agricultural products on the one hand and chemically produced substitutes on the other. Furthermore, a Code of Practice is being drawn up which is based on FAO/WHO standards for vinegar published in 1986. It should establish what is meant by good quality products, and should ensure that goods can circulate freely without any ob-

stacles to trade.

Coffee: Afcasole: Association des fabricants de café soluble des pays de la Communauté européenne

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Revised by: Prometeia Calcolo Srl.

Two major categories of products are covered by this sector: ethyl alcohol of agricultural origin and spirits.

Automotive uses of alcohol, such practice as in Brazil or in the United States, are not yet current in the EC (tests on a limited scale excepted).

The outlets for ethyl alcohol of agricultural origin traditionally remain in the food processing areas (spirits, vinegar, etc.), in pharmaceuticals, cosmetics and some industrial applications.

Surpluses are exported, mainly wine alcohol.

As regards spirits, EC home markets are only slightly increasing, but export markets for EC spirituous beverage are now booming in some parts of the world, mainly in the Far East, with considerable effects on the overall production figures.

The consumption of many spirits are linked to national tastes, such as korn in Germany, ouzo in Greece, jenever in the Netherlands and Belgium, akvavit in Denmark.

The major categories of drinks (whisky, brandy or Weinbrand, gin, vodka, rum and liqueurs) are consumed throughout the EC.

Employment and production

During the eighties the main trends in the alcohol and spirit industry have been the steady growth of consumption, production and exports together with the sharp decline of employment (see Table 1).

Production and exports of spirits in the period 1988-1989 increased significantly over the preceding year, due to developing export markets.

The number of enterprises employing 20 persons or more in the EC has dropped from about 530 in 1980 to a level of around 400 in 1988, mainly as a result of a strong process of concentration and rationalisation of resources (see table 11). Overall EC production of pure ethyl alcohol of agricultural origin is currently in excess of 13.6 million hl per year (see table 2), compared with 5.34 million hl per year of ethyl alcohol produced from ethylene (synthetic

Table 1
Alcohol and spirits
Main indicators

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Apparent consumption	7 724	7 648	7 750	8 323	8 517	8 730	8 891	8 605	9 140	9 152	9 296
Net export	1 467	1 814	2 003	1 937	2 188	2 352	2 033	2 125	2 369	2 825	2 818
Production	9 191	9 462	9 753	10 260	10 705	11 082	10 924	10 730	11 509	11 977	12 114
Employment	75 733	71 525	67 671	64 195	61 527	57 237	55 237	51 063	50 407	48 750	N/A

(¹) Estimated
Source: Eurostat (Inde, Comext)

Table 2
Production of ethyl alcohol by agricultural origin, 1988 or 1987/88

(thousand hl)	Molasses	Beets	Cereals	Wine	Fruits	Potatoes	Cane	Figues	Other	Total
EC	3 783	1 265	919	6 253	290	482	423	34	181	13 630
Belgique/België ⁽¹⁾	50	0	2	0	0	0	0	0	0	52
Danmark	88	0	19	0	0	8	0	0	0	115
BR Deutschland	134	0	40	0	39	472	0	0	9	694
Hellas	156	0	0	27	45	0	0	5	35	268
España ⁽²⁾	498	0	105	1 967	0	0	176	0	75	2 821
France	1 014	1 265	103	1 600	101	0	247	0	20	4 350
Ireland (1987)	40	0	10	0	0	0	0	0	23	73
Italia (1987) ⁽³⁾	869	0	306	2 659	105	2	0	0	2	3 943
Nederland	695	0	17	0	0	0	0	0	8	720
Portugal	35	0	0	0	0	0	0	29	9	73
United Kingdom ⁽⁴⁾	204	0	317	0	0	0	0	0	0	521

(¹) Belgium: Molasses and total estimated
United Kingdom: Cereals and total estimated

(²) Without eaux-de-vie
(³) With eaux-de-vie

Source: Member States and UEAES.

Table 3
Estimated annual production of spirits (in pure alcohol)

(thousand hl)	1983	1984	1985	1986	1987	1988	1989
EC	9 342.0	9 003.0	9 488.0	9 307.0	9 384.0	10 079.0	10 782.0
Belgique/België ⁽⁶⁾	74.0	74.0	74.0	64.0	64.0	60.0	57.0
Danmark ⁽⁶⁾	79.0	87.0	93.0	77.0	74.0	72.0	72.0
BR Deutschland ⁽¹⁾	1 080.0	1 055.0	1 031.0	997.0	976.0	1 014.0	1 010.0
Hellas	105.0	105.0	105.0	105.0	105.0	80.0	80.0
España ⁽²⁾	1 070.0	1 070.0	1 214.0	1 201.0	1 129.0	1 100.0	985.0
France ⁽³⁾	2 200.0	1 800.0	2 150.0	2 100.0	2 060.0	2 280.0	2 460.0
Ireland	125.0	125.0	125.0	120.0	120.0	100.0	100.0
Italia ⁽⁴⁾	990.0	990.0	900.0	850.0	800.0	800.0	800.0
Luxembourg	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Nederland ⁽⁵⁾	378.0	325.0	311.0	306.0	296.0	311.0	286.0
Portugal ⁽⁴⁾ ⁽⁶⁾	88.0	90.0	83.0	85.0	78.0	80.0	80.0
United Kingdom ⁽⁵⁾	3 150.0	3 280.0	3 400.0	3 400.0	3 680.0	4 180.0	4 850.0

(¹) Excluding Bouilleurs de cru. Structure: Eau-de-vie of wine: 27%; Korn: 26.8%;

Eau-de-vie of fruit: 4.2%; Liqueurs: 20.3%; rum: 8.1% others: 13.6%

(²) Structure 1989: brandy: 34.6% ginebra: 17.8%; anisado: 9.9%; whisky: 9.0%; rum: 7.3%; others: 21.4%

(³) Structure 1988: anis: 27%; cognac: 23%; cereal-based spirits: 13%; rum: 4%; others: 33%

(⁴) Distillation for Port excluded

(⁵) Structure 1989: whisky: 83.1% (4031750 hl AP); gin: 8% (368000 hl AP);

vodka: 2.7% (133000 hl AP); others: 6.2% (300000 hl AP).

(⁶) Estimated: Belgium, Denmark and Portugal 1988-89; The Netherlands 1989; Italy 1983-89.

Source: National associations and UEAES

Table 4
Alcohol and spirits
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production in current prices Index	9 191.0 82.9	9 462.0 85.4	9 753.0 88.0	10 266.0 92.6	10 705.0 96.6	11 082.0 100	10 924.0 98.6	10 730.0 96.8	11 509.0 103.9	11 977.0 108.1
Production in constant prices Index	12 829.0 115.8	11 546.0 104.2	10 960.0 98.9	11 244.0 101.5	11 140.0 100.5	11 082.0 100.0	11 040.0 99.6	10 879.0 98.2	11 144.0 100.6	11 129.0 100.4
Value added in current value Index	2 261.0 73.3	2 413.0 78.2	2 599.0 84.2	2 768.0 89.7	2 833.0 91.8	3 085.0 100.0	3 033.0 98.3	3 010.0 97.6	3 248.0 105.3	3 393.0 110.0
Productivity (ECU) Index	41 940.0 76.1	41 308.0 74.9	43 682.0 79.3	48 549.0 88.1	49 137.0 89.2	55 115.0 100.0	57 255.0 103.9	60 886.0 110.5	63 022.0 114.3	64 744.0 117.5
Investment in current value Index	236.0 89.7	263.0 100.0	245.0 93.2	215.0 81.7	249.0 94.7	263.0 100.0	207.0 78.7	239.0 90.9	N/A N/A	N/A N/A

(¹) Census of Manufactures and Eurostat estimates
Source: Eurostat (Inde)

alcohol) in only 3 Member States (Germany 1.3 million hl, France 1.17 million hl, UK 2.87 million hl)

Production of synthetic alcohol in

1988 In the agricultural field, wine alcohol ranks first with around 6 million hl per annum, produced in the wine-growing countries, followed by molasses alcohol, with around 3 million hl, produced in all countries, with the exception of Luxembourg and Belgium (which stopped production at the end of 1989).

Production of alcohol directly from sugar beet in France has now decreased as a consequence of the measures taken after the dismantling of the State monopoly.

Other categories of alcohol are less important and depend on market conditions for their raw materials (fruit, figues, cereals, potatoes). As a consequence of the unifica-

tion of Germany, the EC production of cereals and potato based alcohols may increase by 300,000 hl by 1991.

The leading producer of spirits is the UK with 45% of community production (see table 3).

Consumption

The alcohol consumption figures in terms of amounts of pure alcohol broken down for the three main categories of alcoholic drinks, i.e. spirits, wine and beer, are regularly published by Produktschap voor Gedistilleerde Dranken (Schiedam, Nederland).

This makes it possible to observe consumption trends over given periods.

Levels are provided per capita for the whole population in table 5 and broken down per category in table 6.

Table 5
Pure alcohol
Consumption trends

(litres per capita)	1960	1970	1980	1985	1986	1987	1988
Belgique/België	6.4	8.9	10.8	10.5	10.3	10.7	10.0
Danmark	4.6	6.8	9.2	9.9	10.0	9.6	9.7
BR Deutschland	6.8	10.3	11.5	10.8	10.5	10.6	10.4
Hellas(¹)	5.3	4.7	6.7	6.2	4.6	5.6	5.8
España	8.6	12.1	14.1	11.8	11.7	12.8	12.1
France	18.2	17.3	14.4	13.3	13.2	13.3	13.3
Irland	3.9	4.5	7.3	5.6	6.6	6.1	6.2
Italia	13.8	13.8	11.5	11.6	10.2	10.0	9.0
Luxembourg	11.1	10.1	18.4	13.0	12.7	13.0	13.0
Nederland	2.5	5.6	8.8	8.5	8.6	8.3	8.3
Portugal	10.4	15.6	11.0	13.1	11.2	10.5	10.4
United Kingdom	5.1	6.4	7.1	7.1	7.1	7.3	7.4

(¹) Beer and wine only.
Source: Produktschap voor Gedistilleerde Dranken and UEAES.

Trade

The EC is a net exporter of ethyl alcohol from fermented vegetable products, but a net importer of denaturated ethyl alcohol, as shown in Figure 1.

As regards spirits, the EC 12 is still the world's leading exporter, with Scotch and Irish whiskies and widespread brandies (cognac, armagnac, Weinbrand, and brandies from all mediterranean countries) ranking first, as well as liqueurs. Between 1987 and 1989 exports of and cognac increased substantially, as shown in table 9: The 10 principal markets in 1989 for Scotch whisky and whisky produced in Northern Ireland in 1000 hl/AP and percentage (figures of the previous year in regard) are shown in figure 2. Cognac, being the second export item among all categories of

spirituous beverages is exported in even higher percentages than whisky. The Far East markets (Japan, South Korea, Malaysia, Hong Kong) were booming for both whisky and cognac during 1988-89, while the USA market was decreasing.

Another major category of spirituous beverages is represented by aniseed spirits.

There are several varieties of aniseed spirits but three of them are particularly renowned: the French "pastis", the Greek "ouzo" and the Spanish "anis".

The annual production of this particular kind of spirits is approximately 270 million bottles, 75% of which is produced in France, 12% in Spain, 11% in Greece, the remaining 2% being divided between Italy and Portugal. Consumption of aniseed spirits takes place mainly in the countries of origin: in fact exports represent only 15% of production in Greece, 10% in France and 3.5% in Spain.

Taxation

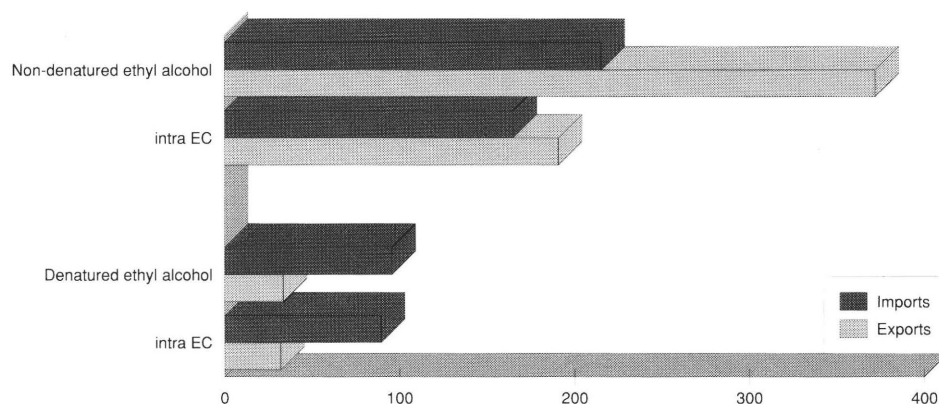
One of the objectives for the completion of the internal market by 31 December 1992 is the removal of fiscal frontiers. This requires a broad measure of agreement on the rates of VAT and excise duty to be charged in the Member States. At present differences in the field

Table 6
Alcohol and spirits
Alcohol consumption by country, 1987, 1988

(litres per capita)	Spirits ⁽¹⁾	Wines ⁽²⁾	Beer ⁽³⁾	Total ⁽¹⁾
EC	1.86	36.23	84.41	9.63
Belgique/België	1.52	23.30	118.60	10.00
Danmark	1.44	21.55	119.86	9.70
BR Deutschland	2.11	25.90	143.00	10.40
Hellas ⁽³⁾	N/A	32.00	40.00	5.80
España	3.00	47.40	68.70	12.10
France	2.47	74.00	39.20	13.30
Ireland	1.70	6.00	96.70	6.20
Italia	1.00	62.10	23.50	9.00
Luxembourg	2.50	58.30	115.80	13.00
Nederland	2.10	14.79	83.30	8.30
Portugal	N/A	58.00	53.10	10.40
United Kingdom	1.81	11.36	111.20	7.40

(1) In litres pure alcohol
(2) In litres in state
(3) Beer and wine only
Source: Produktschap voor Gedistilleerde Dranken.

Figure 1
Imports and exports of ethyl alcohol, 1988
(metric tonnes)



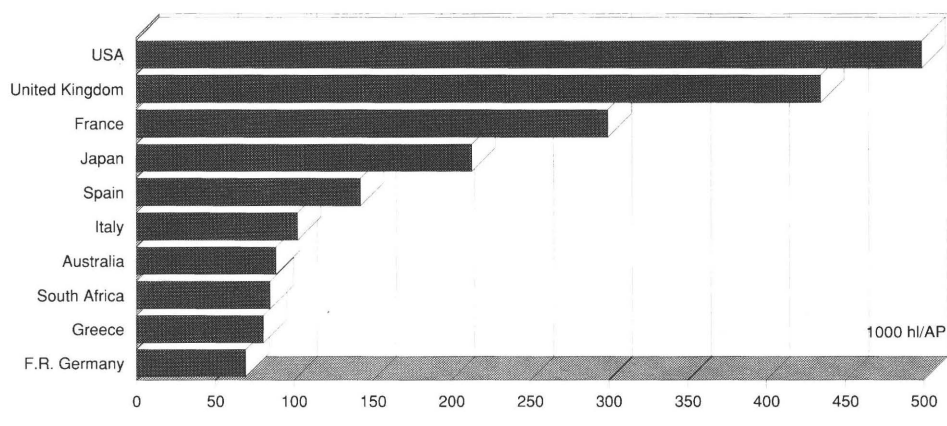
(1) Eur 12
Source: Eurostat

Table 7
Alcohol and spirits
EC trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ⁽¹⁾
Exports extra-EC	1 578.0	1 893.0	2 075.0	2 012.0	2 259.0	2 450.0	2 138.0	2 235.0	2 504.0	2 959.0	3 198.0
Index	64.4	77.3	84.7	82.1	92.2	100.0	87.3	91.3	102.2	120.8	130.5
Imports extra-EC	159.0	145.0	148.0	154.0	167.0	179.0	172.0	198.0	196.0	256.0	380.0
Index	88.8	81.0	82.7	86.0	93.3	100.0	96.1	110.6	109.5	143.0	212.2
X/M	9.9	13.1	14.0	13.1	13.5	13.7	12.4	11.3	12.8	11.6	8.4
Trade intra-EC	717	814	842	893	944	1 105.0	1 254.0	1 312.0	1 517.0	1 700.0	N/A
index	64.9	73.7	76.2	80.8	85.4	100	113.5	118.7	137.3	153.8	N/A
Share of total (%)	30.6	29.4	28.1	29.9	28.6	30.4	36.3	36.1	37.1	35.5	N/A

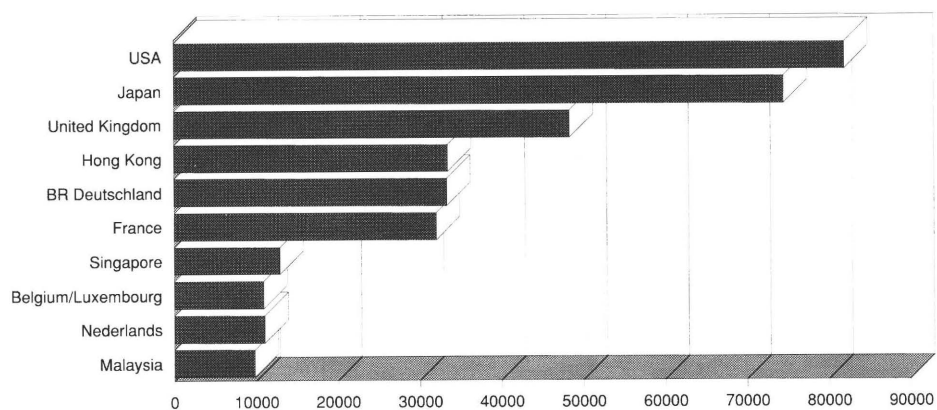
(1) Estimated
Source: Eurostat (Comext)

Figure 2
10 principal markets for Scotch whiskey, 1989
and whiskey produced in Northern Ireland



Source: UEAES and SWA

Figure 3
The 10 principal markets for cognac in 1989
(in hl of pure alcohol) compared to 1988



Source: UEAES

Table 8
Alcohol and spirits
Intra and extra EC trade in Scotch Whiskies, 1988-89

(1000hl/AP)	1988	(%)	1989	%
UK domestic sales	451.7	15.6	434.7	15.2
intra-EC sales	725.6	24.9	850.0	29.7
Exports extra-EC	1 734.1	59.5	1 574.9	55.1

Source: UEAES and SWA

Table 9
Alcohol and spirits
Intra and extra EC trade in Cognac, 1988-89

(1000hl/AP)	1988	(%)	1989	(%)
French domestic sales	31.9	7.5	32.0	7.1
intra-EC sales	121.9	28.9	123.8	27.3
Exports extra-EC	268.1	63.6	296.2	65.6

Source: UEAES

of alcoholic drinks are enormous both among drink categories and Member States. The Commission's original proposals to the effect that Member States should apply common rates of excise by the 31 December 1992 deadline were, however, rejected by all concerned. The new proposals provide for a minimum rate to be achieved by 1992 throughout the community, and a long-term target to which Member States rates are to aim over time. As an indicator for spirits, excise on January 1, 1990 ranged from 142 ECU/hl of pure alcohol in Greece to 3 508.77 ECU/hl of pure alcohol in Denmark. But France, FR of Germany and The Netherlands are not at present going beyond the target level put forward by the EC Commission.

Outlook

Whilst consumption of spirits in most of the member countries will stagnate or decrease rather in the coming years, exports of spirits will continue to increase. As a consequence, production of spirits will show a slight upward trend in the next two years. The process of concentration is expected to continue. Table 11 gives a report of the main mergers and concentrations in the EC spirit industry in the last years.

Table 11
Alcohol and spirits
Concentrations and mergers
in the EC spirit industry

	1988	1989	First quarter of 1990
Enterprises concerned and type of arrangement	Whitbread takes over James Burrough (UK)	Idv. International Distillers & Vintners acquires the Portuguese company Sileno	Suntory doubles its stake in Allied Lyons 5%
	The Canadian concern Seagram acquires Martell & Cie		
	The Dutch Lucas Bois takes over the German Strohtman	Merger: the Danske Spirit-Fabrikker and the Danske Sukkerfabrikker	
		BASS plc., Bacardi Int. and Martini & Rossi: cooperation agreement	
	Asbach acquires all shares held by Dornknaat	Louis Royer is acquired by Suntory	
	Cointreau and Remy Martin: cooperation agreement	Remy & associates takes over MC Cesson Corp	
	Bruggeman acquires Fryns from the Irish Yoko Fresh foods	Hiram Walker-Allied Vinters acquires 25% of the Italian concern Spirit SPA	
	Allied Lyons and Suntory: cooperation agreement	James Burrough sells its Spirit drink division to Allied Lyons	
	Pernod-Richard obtains majority in Irish Distillers Group		

Source: UEAES

Table 10
Alcohol and spirits
New proposals for drinks presented by EC

(excise duty)	Minimum Levels	Target Levels
Spirits (per hl pure alcohol)	1.118	1.398
Intermediate products (per hl)	74.8	93.5
Still wines (per hl)	9.35	18.7
Sparkling wines (per hl)	16.5	33.0
Beer (per hl)	9.35	18.7

Source: UEAES

UEAES: Union européenne des Alcools,
Eaux-de-vie et Spiritueux,
Address: Avenue de Tervueren 192 - bte 6,
B-1150 Brussels
Tel.: (322) 771 77 35, Fax.: (322) 772 01 09
Updated by: IFO

EC wine production accounts for 60-70% of the world wine production.

The quantity of wine produced by the EC market has been in excess for nearly twenty years for two main reasons; the improvements in cultivation techniques which have caused a large increase in production and because of particularly abundant vintages. On the contrary, consumption has decreased from year to year.

Current situation

The surplus in wine production accounted for 20.6 millions hl in 1988/89, e.g. 12.5% of production.

Nowadays the surplus has been partially reabsorbed thanks to the following reasons; poor vintages in 1988 and 1989, a slight increase in consumption and the effects of the EC policy.

The EC policy in this field aims at:

- ❖ an overall reduction of vineyards areas;
- ❖ a reduction of per hectare production in those regions where it was too high, this being a consequence of an increase in the production of high quality wine (that is Quality Wines Produced in Determined Regions);
- ❖ the distillation of a high quantity of table-wine in excess.

The 1989/1990 vintage has caused a slight increase in the EC production and a decrease in world production. Almost all EC producers have increased their wine supply with the exception of Italy (-6%) and France whose production remained unchanged. As far as world production is concerned (250 millions and 100 000 hl in 1989 and 270 million and 674.000 hl in 1988), production decreased in Austria

(-25%), Chile (-7.8%), USA (-10%), Yugoslavia (-4.5%). These countries account for 1%, 1.56%, 6.56%, 2.2% of world production, respectively.

Production

The EC is the largest wine producer, its production accounting for 60%-70% of world production. This can be divided into three categories of wine:

- ❖ table-wines, accounting for about 65% of production, whose percentage is decreasing;
- ❖ Quality Wines Produced in Determined Regions (Q.W.P.D.R.), accounting for about 30%, whose percentage is increasing;
- ❖ other wines directed towards the production of cognac and wines which are not included in the previous categories.

The production of wine inside the EC is mainly due to Italy (34% of the quantity of wine produced in Europe), and France (32.4%), followed by Spain (19.2%), Germany (7.5%), Portugal (4.3%), Greece (2.6%) and Luxembourg (0.1%). The structure of production significantly varies from country to country.

Italy supplies the largest amount of table-wine in the EC.

Table 1
Wine
Main indicators, 1980-1989

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Apparent consumption	4 402	4 655	5 227	5 502	5 954	6 393	6 130	6 603	7 105	7 572
Net exports	- 9	72	102	139	271	305	678	658	672	741
Production (*)	4 393	4 727	5 329	5 641	6 225	6 698	6 808	7 261	7 777	8 313
Total investments	96	101	95	178	164	133	N/A	N/A	N/A	N/A
Net investments	140	151	135	217	206	171	N/A	N/A	N/A	N/A
Total employees (*)	52 100	51 534	49 912	50 329	50 548	49 363	48 418	48 766	48 654	48 832
Turnover	2 986	3 281	3 454	3 863	4 325	4 701	4 622	4 989	5 369	5 647

(*) EC 10: enterprises with 20 or more employees. Spain and Portugal: all enterprises.
Source: Eurostat (Inde)

France and Spain supply the largest amount of "Quality Wines p.s.r." in the EC. In France production also accounts for a high percentage of "other wines" (table 4). This section, in fact, includes the production of the region of Charentes, where white wine is mainly used for the production of Cognac. Even if the number of vineyard areas is higher in Spain than in France or Italy, Spanish production is the that half of Italian or French one: per hectare production is in fact very low (table 5).

Germany and Luxembourg mainly produce "Quality Wines p.s.r." and their per hectare production is extremely high. The incidence of wine on the total amount of agricultural production is remarkable, thanks to the high added value. In Greece productivity is rather low: in this country about 170 000 ha are employed for wine-growing, more than those employed in Germany; however, Greek production was 25.88 hl/ha versus 92.07 in Germany in 1988 (table 5). In Portugal wine production reaches the same level of that of West Germany but

the added value of Portuguese production is much lower than that of German production. In 1987 Portuguese production was 11 047 000 hl, with 8 million ECU added value (1985 prices), German one was 9 713 000 hl, with 117 million ECU added value. Each country's market structure is a very fragmented. It is split up in different regions, each with a particular production.

Consumption

The EC is also the largest wine consumer, accounting for about 54% of world consumption in 1989. On the whole, EC per

Table 2
Wine
Production and external trade

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production in current prices										
EC Index	4 393	4 727	5 329	5 641	6 225	6 698	6 808	7 261	7 777	8 313
Index	65.6	70.6	79.5	84.2	92.9	100.0	101.6	108.4	116.1	124.1
Trade (*)										
Exports extra EC Index	309	400	466	498	636	696	693	673	687	758
Index	44.4	57.5	66.9	71.5	91.3	100.0	99.6	96.6	98.7	108.9
Export rate (%)	7.0	8.5	8.7	8.8	10.2	10.4	10.2	9.3	8.8	9.1
Imports extra EC Index	318	328	365	359	365	391	15	14	15	18
Index	81.3	83.9	93.2	91.7	93.2	100.0	3.9	3.7	3.8	4.5
Import penetration rate (%)	7.2	7.1	7.0	6.5	6.1	6.1	0.2	0.2	0.2	0.2
X/M	97.3	121.9	127.8	138.8	174.4	178.1	4 590.7	4 704.2	4 607.5	4 297.7
Intra EC trade Index	364	378	394	421	478	564	969	1 028	1 122	1 184
Index	64.6	67.1	69.8	74.6	84.8	100.0	171.9	182.4	199.1	210.1

(*) EC 10: enterprises with 20 or more employees. Spain and Portugal: all enterprises.
(*) 1980 EC 9; 1981-1985 EC 10.
Source: Eurostat (Inde)

capita consumption has progressively decreased in the 80s, with the exception of the years 1986/1987. In 1988/1989, per capita consumption has decreased in some of the main wine-producing countries, with the exception of Germany, Greece and Italy, where the annual per capita consumption increased from 69.99 to 71.58 litres, after having decreased for many years (table 6). Moreover, consumption structure is changing since in all EC countries the annual per capita consumption of Quality Wines is remarkably increasing.

Regulatory environment and prices

EC measures concern primarily the distillation of table-wine surplus and help in the reduction of vineyards.

Quality wines production is favoured against table-wine production because it gives less vintage and therefore helps in reducing the surplus; distillation measures do not involve Q.W.P.D.R.

Such measures are divided into optional and mandatory distillation; in the years 1985-86, 7.5 million hl were altogether distilled, in the years 1986-87 22.8, in 1987-88 44.1 and in 1988-89 20.6.

In both instances, EC laws require the distiller to pay the producer a minimum price for the wine.

The minimum price is a variable percentage of the guide price, depending on the kind and the quantity of distillation.

The EC sets a guide price for table-wine every year, based on the average prices of the two preceding campaigns and the prices of the current campaign.

If market prices fall below 82% of the guide price, or inventories at the end of the campaign exceed 4 months of usual

Table 3
Wine
Production (1000 hl)

(1000 hl)	1985	1986	1987	1988	1989 (¹)	1990 (¹)
EC	190 481	185 727	211 410	212 020	161 460	176 400
BR Deutschland	8 882	6 097	10 921	9 713	9 300	13 200
Hellas	5 025	4 782	4 334	4 475	4 400	4 600
España	34 179	33 103	37 042	41 481	22 700	33 800
France	63 418	70 055	73 974	68 340	57 100	57 100
Italia	70 170	61 690	76 962	75 822	63 800	60 000
Luxembourg	152	107	160	142	160	200
Portugal	8 655	9 893	8 017	11 047	4 000	7 500

(¹) estimated
Source: Eurostat

Table 4
Wine
Percentage of different kind of wines on total production in hl.(¹)

	80/81	84/85	88/89(²)
Table wine			
BR Deutschland	3.0	13.0	3.1
Hellas	92.4	91.3	86.6
España	N/A	N/A	54.2
France	67.4	62.4	52.3
Italia	86.9	84.6	83.5
Luxembourg	4.0	33.6	0.0
Q.W.P.D.R.			
BR Deutschland	97.0	87.0	96.9
Hellas	4.5	7.2	11.5
España	N/A	N/A	43.4
France	21.3	24.8	35.8
Italia	10.7	9.8	14.2
Luxembourg	96.0	66.5	100.0
Other			
BR Deutschland	0.0	0.0	0.0
Hellas	3.1	1.5	1.9
España	N/A	N/A	2.4
France	11.3	12.8	11.9
Italia	2.4	5.6	2.3
Luxembourg	0.0	0.0	0.0

(¹) Portugal excluded
(²) estimated
Source: Eurostat and "Corriere vinicole"

supply, or production exceeds normal requirements by more than 9%, mandatory distillation is required: each wine-grower must send a percentage of his table-wine production to be distilled and must accept a price that is 7.5 - 50% of the reference price (depending on quantity). Optional distillation guarantees a higher minimum price, between 65% and 92% of the guide price (depending on the kind of optional distillation); this price, however, is only applicable

to small quantities and under certain conditions.

Wine average price is generally below the guide price, even though during the 1988-89 vintage wine production prices increased because of the effect of the surplus partial acquisition.

Employment

The data on employment, shown in table 1, refer only to the firms employing 20 or more workers; obviously, these represent

Table 5
Wine
Average wine production of vineyard areas (x 1000 ha)

	1987		1988		1989	
	ha	hl/ha	ha	hl/ha	ha	hl/ha
EC	4 173	50.80	4 090	39.47	N/A	N/A
BR Deutschland	100	97.13	101	92.07	102	129.40
Hellas	(¹) 171	26.17	(¹) 170	25.88	N/A	N/A
España	1 514	27.40	1484	15.30	(¹) 1 460	23.15
France	1 033	67.12	989	57.73	964	59.23
Italia	1 082	70.07	1073	59.45	(¹) 1 073	55.90
Luxembourg	1	142.00	1	160.00	1	200.00
Portugal	270	40.90	270	14.80	N/A	N/A

(¹) Estimated
Source: Eurostat

Table 6
Wine
Total and per capita wine consumption (x 1000 hl)

	Total		Per capita	
	87/88	88/89	87/88	88/89
EC	131 850	132 184	42.08	40.03
BR Deutschland	15 614	16 415	25.68	27.03
Hellas	2 900	3 035	28.83	30.05
España	20 352	19 004	52.10	48.43
France	41 900	41 400	75.25	74.08
Italia	40 135	41 100	69.99	71.58
Luxembourg	213	207	58.20	56.56

Source: "Corriere vinicolo"; Ismea

only some of the firms involved in the production of wine. According to these data, the number of people employed in the wine-growing sector decreased by 6.3% from 1980 to 1989.

In Germany (-20.1%), Greece (-10%) and Spain (-7.4%) in particular, employment is decreasing to a larger extent than the EC average; in the two latter countries, this is mainly due to the fact that manpower is moving from rural to urban areas.

In Italy the number of wine-growers increased by 3.8% from 1980 to 1989 because Italian production is shifting towards quality production requiring more labour.

Trade

According to Eurostat data, the EC exports and imports accounted for about 76% of the world wine trade in 1987.

From 1981 up to 1985, the net exports value increased progressively. After a de-

crease in 1986, which continued in 1987, extra-EC exports started to increase again (758 million ECU in 1989) going beyond the export value in 1985 (Table 2).

In the same year, the value of intra-EC trade amounted to 1184 millions ECU.

Up to 1986, imports from extra-EC countries accounted for about 6%-7% of the EC production and they mainly came from Spain. As a consequence of the entry of Spain into the EC, the value of imports decreased up to 0.22% of EC production, while the volume and value of intra-EC trade significantly increased.

From 1986 onwards, Spain and Portugal have counterbalanced the fall of Italian wine exports, due to the "methanol scandal", e.g., the adulteration of some parcels of Italian wine by means of methanol.

In 1986 the quantities exported from Italy towards other EC countries decreased

more than those towards third countries; this is due to the fact that Italian exports towards EC countries mainly consist of low-price wines, whereas those towards third countries mainly include quality wines.

However, the "methanol scandal" has affected Italian trade with foreign countries more deeply than that with the EC; in fact, Italian exports towards foreign countries also decreased in 1987, whereas intra-EC exports have started to increase again, even if slightly.

Italy, which up to 1987 exported the largest quantity of wine, had to give its leadership to France, which was already the first exporter in terms of value, followed by Spain, Germany and Portugal.

Outlook

The market trend mainly depends on two factors: the transformation of the production structure, on one hand, and the trend of future vintages, on the other.

As far as the first factor is concerned, it may be assumed that the transformations which are taking place at the moment will continue; this means that cultivated surface will decrease and that the EC production will be better in quality. The production of Quality Wines will increase at the expense of that of table-wines, thus following the demand trend and restricting the gap between this and the offer. The latter may even decrease if the actual trends continues. Demand for new products (wine coolers, for instance) can be expected and alternative uses of wine can be developed (grape juice).

Written by: Prometeia Calcolo Srl
The industry is represented at EC level by:
Comité de la Communauté économique européenne des industries et de commerce, Comité de vin. Address: Rond Point Schuman, 9, Bte 4, B- 1040 Brussels; tel: 235 11 11

Brewing is the third largest branch of the food industry after dairy and meat products and is the largest of the secondary processing industries. Within the individual Member States, it is the largest food industry in Germany, Belgium and Luxembourg and the second largest in the UK and Denmark.

In 1989 there were about 1 400 independent brewing companies in the Community employing some 150 000 persons and producing 268 million hl of beer, approximately 9 million hl of which were exported to non-Community countries. Within the Community the average annual per capita consumption of beer was nearly 80 litres in 1989. The industry uses 5.5 million tonnes of malting barley each year.

Industry structure

Table 2 shows the number of active breweries, the number of independent brewing companies and the number of persons employed in the Member States in 1989. There was a strong trend towards concentration in the industry.

Average beer output per brewery is relatively high particularly in the Netherlands, Spain, Portugal and Ireland. On the other hand average output is low - due to the fragmented structure of the industry - in Germany and Belgium.

European breweries hold a dominant position in their home markets. This is a direct consequence of the diverse tastes of consumers in the EC. As table 3 shows, companies like Heineken and Interbrew hold more than half of beer sales in their home market. On the contrary, in Germany the home market shares of the leading brewing

group is relatively low, with no more than 6% of the German market.

The dimension of the leading European breweries is surpassed by US and Japanese breweries: Anheuser Busch (USA) has an output of 95 million hl, while Kirin (J) has an output of about 30 million hl.

The economies of scale obtained by leading breweries of the EC have generated a movement towards recognisable European brands. This tendency is still not very strong: Heineken, the largest European brewer, has secured so far only 9.4% of the Western European market.

Production

Since 1986 the production of beer in the EC is stable at a level between 260 and 270 million hl. The main producers are Germany with nearly 35% of total production, followed by the United Kingdom with a share of 22.5%.

Table 1
Brewing
Main indicators, 1980-89

(million hl)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Apparent consumption (1)	230.7	229.0	228.9	230.7	224.5	225.8	252.2	256.5	258.2	259.8
Net exports (2)	5.2	6.1	6.1	6.7	7.5	7.4	8.1	7.9	8.1	9.0
Production (1)	235.9	235.1	235.0	237.4	232.0	233.2	235.7	264.0	265.9	268.8
Employment (thousands) (3)	192.8	182.5	181.2	174.1	167.4	164.3	157.5	170.3	160.3	152.7

(1) 1980-86 excluding Greece and Spain.

(2) 1980: excluding Greece, Spain and Portugal; 1981-83 excluding Spain and Portugal

(3) 1986 excluding Greece, Spain.

Source: Eurostat, CBMC, Deutscher Brauer-Bund

While the Community is producing surplus cereals, the brewing industry is short of its own raw material: malting barley. Between 1979 and 1984 the areas given over to growing malting barely in the EC dropped by almost 50%, leading to prices above threshold levels and imports of barley from third countries.

Consumption

Over the past few years the consumption of beer has not increased, due to changing trends in beverage consumption and lifestyle. Most significant is the growing trend of beer consumption in Portugal and Spain, whilst in Ireland consumption is decreasing.

Probably the most important problem fac-

ing the European brewing industry is the stagnation of domestic beer consumption in most of the European countries. On average consumption in 1989 was at a similar level to that in 1970. As a result, competition is in general very strong in the brewing industry and third-country markets are becoming increasingly important to European beer producers.

The result of this being, the big market potential in Eastern European countries and also the growing beer market in Japan. Consumption is stagnating in the biggest beer market of the world, that is the USA, with more than 230 million hl, and exports to the USA are decreasing.

Stagnation of beer consumption in most of

the industrialised countries can be explained by the preference of the consumers for non-alcoholic drinks. This is why many of the breweries try to participate in this growing market by producing light or non-alcoholic beer.

Trade

Exports to third countries have grown although they represent a very small portion of total production. During the same period imports have remained at a very low level. The internal consumption of the EC Member States has not increased. Intra-EC trade is steadily growing and reached a level of about 120 million hl in 1989. Some influence on intra-EC-trade may be expected from the removal of the

Table 2
Brewing
Structure of the industry

	Active breweries (plants)				Independent brewing companies				Employees			
	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989
EC (1)	1 597	1 568	1 583	1 565	1 433	1 378	1 403	1 418	1 78 768	171 494	160 385	152 758
Belgique/België,												
Luxembourg	130	131	148	133	109	107	114	105	12 832	10 316	9 804	9 301
Danmark	23	22	22	19	18	17	18	16	7 200	5 900	5 100	4 850
BR Deutschland	1 190	1 161	1 168	1 178	1 140	1 120	1 140	1 150	59 500	58 100	56 100	54 400
Hellas	N/A	7	6	6	N/A	N/A	N/A	N/A	N/A	2 550	2 590	2 488
España	N/A	34	34	31	26	N/A	N/A	22	N/A	15 000	(2)15 000	(2)15 000
France	37	41	39	37	N/A	32	32	29	8 809	7 618	N/A	7 504
Ireland	7	7	7	7	5	4	4	4	N/A	3 532	3 215	2 984
Italia	24	23	25	24	12	12	12	10	5 020	5 100	4 640	4 418
Nederland	20	21	19	17	14	15	14	14	9 625	9 745	9 221	8 761
Portugal	8	8	8	8	4	4	4	4	4 504	4 430	3 097	3 052
United Kingdom	117	113	107	105	68	66	65	64	50 000	48 000	44 000	40 000

(1) Estimated

(2) 1987

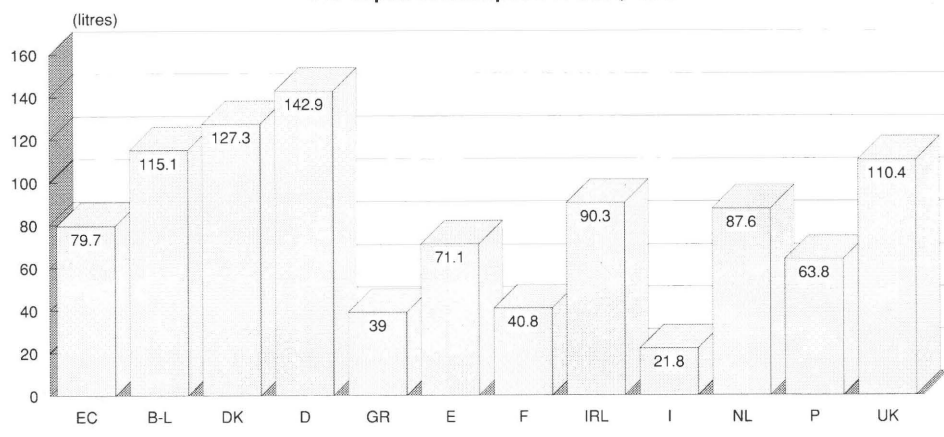
Source: CBMC

Table 3
Brewing
Major breweries, 1990

(millions hl)	Total Output	% of home market
Heineken (NL)	27	50
Artois-Piedboeuf-Interbrew (B)	18	60
BSN (F)	16	47
Carlsberg/Tuborg (DK)	12	70
Bass (GB)	12	23
Oetker and Maerz (D)	6	6
Anheuser Busch (USA)	95	40
Kirin (J)	30	50

Source: Barclays de Zoete Wedd; IFO-Institute

Figure 1
Brewing
Per capita consumption of beer, 1989



Source: CBMC

purity law ("Reinheitsgebot") in Germany. The German purity law states that "beer" must only contain four ingredients (hops, malted barley, yeast and water). Partially as a result of this law imports of beer to Germany amounted to only about 1.5% of

consumption. In March 1987, the European Court of Justice ruled that imported beer containing ingredients other than the four mentioned could be sold in Germany under the product name beer. (The purity law still applies however to all beer made

Table 4
Brewing
Total beer production

(million hl)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (*)	235.9	235.1	235.0	237.4	232.0	233.2	259.8	263.8	256.9	268.8
Belgique/België	14.3	13.8	14.6	14.2	14.3	13.9	13.7	14.0	13.8	13.2
Danmark	8.2	8.2	8.5	8.7	8.5	7.9	8.5	8.5	8.7	8.8
BR Deutschland	92.3	93.7	94.8	95.0	92.6	93.3	94.1	92.5	92.5	93.0
Hellas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.8	4.0	3.9
España	N/A	N/A	N/A	N/A	N/A	N/A	24.1	25.8	26.6	27.3
France	21.7	21.7	22.3	21.8	20.7	20.3	20.7	19.9	20.1	20.9
Ireland	6.0	5.8	5.6	5.5	5.4	5.5	5.4	5.0	5.0	5.1
Italia	8.6	9.0	10.2	10.1	9.1	10.3	11.1	11.1	11.3	10.4
Luxembourg	0.7	0.8	0.8	0.7	0.6	0.7	0.7	0.7	0.6	0.6
Nederland	15.7	16.6	16.2	17.3	17.0	17.5	18.0	17.5	17.5	18.8
Portugal	3.6	3.8	3.9	3.8	3.7	3.8	4.1	5.0	5.6	6.8
United Kingdom	64.8	61.7	58.1	60.3	60.1	60.0	59.4	59.9	60.2	60.0

(*) 1980-86 excluding Greece; 1980-85 excluding Spain

Source: CBMC

in Germany.) The effect of the removal of this trade barrier may be an increase in beer imports into Germany. Until now exports of beer to Germany increased very slowly due to the characteristics of the German beer market (highly fragmented, consumer loyalty to special brands, complex distribution channels). On the other hand there are signs that foreign breweries are more interested in brewing in Germany than exporting to Germany.

Outlook

For 1990, the available figures on beer production indicates a stagnation in most of the European countries. However, in the FR of Germany beer production will increase by about 5% to 6% in 1990, due to the unification with the former GDR and the growing number of immigrants. In 1991 and 1992 this process will continue to have a positive effect on German beer output whilst in most of the other EC Member Countries production will scarcely increase.

Table 5
Brewing
Total beer consumption

(million hl)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EC (*)	228.4	226.5	227.1	229.2	222.9	223.8	252.2	256.5	258.2	259.8
Belgique/België, Luxembourg	13.4	12.6	13.5	13.1	12.8	12.4	12.5	12.3	12.3	12.0
Danmark	6.7	6.7	6.8	7.1	6.9	6.6	6.7	6.4	6.7	6.7
BR Deutschland	89.7	90.6	91.1	91.1	88.4	89.0	89.4	88.1	88.1	88.8
Hellas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.8	4.2	3.9
España	N/A	N/A	N/A	N/A	N/A	N/A	24.6	26.5	27.2	28.1
France	23.7	23.7	24.3	23.8	22.6	22.1	22.4	21.7	21.9	22.8
Ireland	4.2	4.0	4.0	3.8	3.8	3.9	3.7	3.3	3.3	3.2
Italia	9.5	10.1	11.6	11.8	10.8	12.4	13.2	13.2	13.0	12.3
Nederland	12.2	12.8	11.7	12.6	12.0	12.2	12.5	12.4	12.4	13.0
Portugal	3.5	3.7	3.7	3.7	3.5	3.7	4.0	4.8	5.5	5.7
United Kingdom	65.5	62.3	60.4	62.2	62.1	61.5	61.2	62.9	63.3	63.2

(*) 1980-86 excluding Greece; 1980-85 excluding Spain
Source: CBMC

Table 6
Brewing (*)
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production in current prices	13 736	15 476	17 417	18 470	18 539	19 169	20 615	20 521	22 094	23 037
Index	71.7	80.7	90.9	96.4	96.7	100	107.5	107.1	115.3	120.2
Production in constant prices	19 372	19 178	19 825	20 207	19 204	19 169	20 580	20 267	20 872	20 902
Index	101.1	100	103.4	105.4	100.2	100	107.4	105.7	108.9	109
Value added in current value	4 933	5 369	5 759	6 106	5 627	5 964	6 774	6 914	7 270	7 664
Index	82.7	90	96.6	102.4	94.3	100	113.6	115.9	121.9	128.5
Productivity (ECU)	37 535	38 134	39 550	41 403	37 467	38 853	43 969	45 825	47 393	49 385
Index	96.6	98.1	101.8	106.6	96.4	100	113.3	117.9	122	127.1
Investment in current value	1 170	1 390	1 194	1 287	1 408	1 301	1 504	1 636	N/A	N/A
Index	89.9	106.8	91.8	98.9	108.2	100	115.6	125.7	N/A	N/A

(*) Including malting
Source: Eurostat (Inde)

Table 7
Brewing (*)
EC trade in current value

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Exports extra-EC	533.5	706.4	838.8	926.3	988.8	1 016.7	968.2	888.7	839.6	970.6
Index	52.5	69.5	82.5	91.1	97.3	100	95.2	87.4	82.6	95.5
Imports extra-EC	66.7	92.5	106.2	136.8	122.6	118.4	135.3	155.1	48.9	55.7
Index	56.3	78.1	89.7	115.5	103.5	100.0	114.3	131.0	41.3	47.0
X/M	8.0	7.6	7.9	6.8	8.1	8.6	7.2	5.7	17.2	17.4
Trade intra-EC	422.6	449	560.4	619.4	663.9	742.8	890.4	860.4	872.6	961.6
Index	56.9	60.4	75.4	83.4	89.4	100	119.9	115.8	117.5	129.5
Share of total (%)	45.3	39.1	40.4	40.5	40.4	43.1	51.2	49.9	50.0	49.3

(*) Including malting
Source: Eurostat (Comext)

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The EC malt industry processes annually approximately 5 million tonnes of malt, representing 42% of world malt production which is estimated at 12 million tonnes. The main EC malt producing countries are Belgium, France, Germany and the United Kingdom. Other malt producing Member States include Denmark, Ireland, Italy, the Netherlands and Spain. Two main categories of malt are produced: brewing malt which accounts for approximately 96.5% of the tonnage produced and whisky malt (about 3,5%).

Production

The value added content of malting is low. In the Community the raw material (barley) represents between 75% and 80% of the ex-factory sales price. To remain competitive on the world market the European maltsters must manage their supply of the raw material barley as rationally as possible.

The malting industry processes annually about 6,5 million tonnes of barley, of which 1,6 million tonnes for export. Only certain barley varieties can be used for brewing. Moreover, the barley has to meet stringent quality criteria in terms of size of grains, germination energy, protein content and diastatic power. At present, the EC supply of quality brewing barley is precarious.

Trade

As malt is the raw material for beer, the trends in malt exports follow in principle the evolution of beer production. World beer production amounted to 1 103 million hl in 1989 and increases annually by about 2%. Production is concentrated in the northern hemisphere (800 million hl) where consumption is stagnating. The past

15 years have seen a remarkable development of beer production and consumption in South and Central America (+ 6%/year), Asia (+ 11%/year) and Africa (+ 6%/year). As barley growing is difficult in these parts of the world, market opportunities for malt exporting countries to these areas are substantial.

The total world malt trade amounted to about 3.4 million tonnes in 1989. Intra EC-trade amounted to 776 000 tonnes, or about 23% of world trade in the same year. In 1989, the EC exports to third countries amounted to 1.3 million tonnes, which makes the EC by far the most important malt exporter in the world. In 1989, the EC exports to third countries were geographically divided as shown in figure 1.

In 1988, the EC's main competitors on the world market were in order of importance: Australia (360 000 tonnes), Canada (177 000 tonnes), USA (66 000 tonnes). Eastern Europe (CSFR, ex-GDR, Poland) had in 1988 exports of 292 000 tonnes.

The brewing process is adjusted once yearly, in accordance with the qualities of

Table 1
Malt
Main indicators, 1980-89 (1)

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989(2)
Apparent consumption	4 017	3 649	3 898	3 758	3 770	3 615	3 966	4 069	4 403	4 065
Net exports	963	1 219	1 122	1 268	1 019	1 089	1 118	1 233	1 205	1 230
Production	4 980	4 868	5 020	5 026	4 789	4 704	5 084	5 302	5 608	5 298

(1) Excluding Portugal and Greece.
(2) Excluding Spain.
Source: EUROMALT, BIOS.

the brewing malt which change from year to year. Therefore, for technical reasons, the purchase of malt is subject to an annual cycle in the EC and worldwide. This cycle depends on the barley harvest in the Northern hemisphere of the world where 85% of the malt is produced. Processing of the new crop takes place in the period from December (when the new barley is mature), to November of the following year. In order to cover the yearly purchasing and processing cycle of the breweries, EC malting plants need licences with a validity of

12 months.

Industry structure

About two-thirds of the EC malting operate independently, while one-third of them are associated with other industries, predominantly breweries. In 1989, there were 170 EC maltings. The malting industry is capital intensive and its investments require many years to repay.

Outlook

World production of brewing malt increased from 9.1 mio.t. in 1977 to about 12.3 mio.t. in 1989 (2.5% per year). Ac-

ording to the most prudent estimates, total world-wide demand for malt is expected to rise to 12.75 mio.t. in 1992. This would mean an additional 150 000 t. of malt each year, on average. The medium-term outlook for the Community malt industry is thus good. Although consumption of beer has stabilised in Europe, it has increased in third countries which do not produce barley.

Table 2
Malt
EC trade in volume

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Exports extra-EC	1 018	1 265	1 162	1 315	1 076	1 149	1 175	1 294	1 274	1 297
Index	88.5	110.1	101.1	114.5	93.7	100.0	102.3	112.6	110.9	112.9
Imports intra-EC	55	46	40	47	57	60	57	61	69	64
Index	91.7	76.7	66.7	78.3	95.0	100.0	95.0	101.7	115.0	106.7
X/M	18.5	27.5	29.1	28.0	18.9	19.2	20.6	21.2	18.5	20.3
Trade intra-EC	436	456	581	54	580	603	651	705	745	776
Index	72.3	75.6	96.4	89.4	96.2	100.0	108.0	116.9	123.6	128.7
Share of total (%)	29.9	27.0	33.7	28.9	35.8	35.0	35.4	34.4	37.3	38.6

Source: BIOS

Table 3
Malt
Maltings, 1989

	Belgique/ België	Danmark BR	Deutschland	France	Ireland	Italia	Nederland	United Kingdom	Total
Independent	8	3	68	10	3	3	4	13	112
Associated to breweries	2	2	33	1	2	1	1	8	50
Associated to other industries	0	0	0	0	1	1	0	6	8
Total	10	5	101	11	6	5	5	27	170

Source: EUROMALT



Table 4
Malt
Number and total capacity of maltings (Plants), 1989 (1)

Number of plants	0-9	10-19	20-29	30-39	40-49	50-99	100-199	200+	Total
Belgique/België (2)	1	1	2	0	0	4	2	0	10
Danmark	1	0	2	1	0	1	0	0	5
BR Deutschland	57	17	9	9	3	5	0	1	101
France	1	1	0	1	1	1	5	1	11
Ireland	1	3	0	1	0	1	0	0	6
Italia	2	0	0	3	0	0	0	0	5
Nederland	1	0	1	1	0	2	0	0	5
United Kingdom	11	4	1	1	1	2	6	1	27
Total	75	26	15	17	5	16	13	3	170

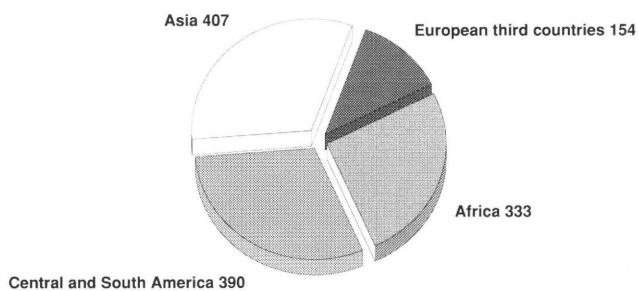
Total capacity (million tonnes)	0-9:	10-19	20-29	30-39	40-49	50-99	100-199	200+	Total
Belgique/België (2)		26	53			355		245	684
Danmark		6	50			113		0	169
BR Deutschland		455	240			790		215	1700
France		28	0			147		1156	1330
Ireland		48	0			115		0	163
Italia		10	0			120		0	130
Nederland		3	28			165		0	196
United Kingdom		106	20			228		1214	1568
Total		682	391			2032		2830	5940

(1) All malsters whether independent or associated with the brewing

(2) Including 5000 t. brewer malsters

Source: EUROMALT

Figure 1
Malt
EC malt exports, 1989
(thousand tonnes)



Source: Euromalt

Euromalt: Comité de Travail des Malteries de la
C.E. Address: Rue de l'Orme, 19, B-1040 Bruxelles.
Tel.: (02) 733 12 64 - 734 12 40; Fax (322) 734 67 02

Revised by: IFO: Institut für Wirtschaftsforschung

The soft drinks industry was after World War II one of the most expanding branches of the food sector. This can be explained by increasing preferences for non-alcoholic drinks compared to those for alcoholic drinks. Over the last years development has been slower in some countries, due to ageing of the population, obstacles to the development of new packaging systems and an increasing competition from other non-alcoholic drinks (mineral waters and fruit juices). In some countries a very high level of consumption (e.g. Germany and Belgium) limited the growth of consumption. Nevertheless production of soft drinks in the EC on the whole will continue to increase in the next years.

Sector definition

In the context of this monograph, "soft drinks" mean non-alcoholic beverages consisting of water, flavouring substances, sugars or intensive sweeteners. Waters (mineral waters and other categories) sharing item 428 of the NACE classification with soft drinks, are not included, neither are fruit juices, nor nectars (see NACE 414.4).

Current situation

The 1989 production figures indicate that there has been once again a considerable increase in volumes (9%), although the evolution has been quite different from one country to another.

Total production volume is now approximately 18 billion litres in ready-to-drink beverages.

The number of production units within the EC is on a continuing decreasing trend.

Differences in consumption between EC

countries are sharply marked: the annual per capita consumption of ready-to-drink beverages in Germany is 82 l but only 30 l in Italy. Cola drinks account for 50% of total consumption in Belgium and Greece but for only 20% in Portugal.

Differences in taste, tradition, economic and sociological situation explain these widely variable consumption patterns.

Factors influencing consumption

The increase of volumes which has been a steady phenomenon ever since the Second World War can be explained by the preference of the consumers for non-alcoholic drinks due to increasing awareness with regard to health, campaigns against alcoholic drinks, stronger drink driving laws, the increase in purchasing power leading to greater sophistication and diversification of drinks, a multitude of product innovations

Table 1
Soft drinks
Main indicators by country 1989

(million litres)	B	DK ⁽¹⁾	D	GR	E	F	IRL	I	L	NL	P	UK	EC
Total consumption	777.4	235.5	4 822.0	450.0	2 645.0	1 886.8	224.5	1 715.0	25.0	987.9	343.6	3 892.6	18 005.3
Net exports	99.4	1.6	73.7	N/A	- 31.0	N/A	- 17.1	N/A	- 9.0	266.3	N/A	- 16.8	N/A
Production	606.1	234.1	4 673.6	450.0	2 600.0	1 886.8	182.4	1 715.0	13.0	860.0	343.6	3 815.8	17 380.4
Consumption per capita ⁽²⁾	79.3	46.0	82.0	45.0	67.5	33.0	64.1	29.8	65.0	66.5	34.3	60.9	54.6
Number of enterprises ⁽³⁾	27	4	140	34	125	61	25	115	3	12	63	108	717
Employment (number)	2 876	1 160	17 700	3 243	18 164	12 962	2 700	9 353	160	2 106	3 582	17 414	91 420

⁽¹⁾ Only carbonated soft drinks

⁽²⁾ Litres

⁽³⁾ Enterprises with 20 or more employees

Source: UNESDA

Table 2
Soft drinks
Consumption by category, 1989

(%)	B	DK ⁽¹⁾	D	GR	E	F	IRL	L	I	NL	P	UK
Fruit juice drinks	8.6	0	14.6	25.0	23.0	38.0	11.0	N/A	46.0	27.6	48.6	N/A
Drinks with fruit or vegetable extracts	0	0	0	0	0	0	0	0	0	0	0	0
Colas	50.6	33.9	38.6	51.0	43.1	29.0	24.0	N/A	37.0	45.5	20.3	38.0
Others ⁽²⁾	35.0	43.9	42.6	24.0	1.5	25.0	22.5	N/A	13.0	16.4	20.8	N/A
Flavoured drinks	0	22.2	4.2	0	25.5	0	37.0	N/A	0	8.6	9.3	N/A
Shandies/Mixtures of S.D. & other drinks	0	0	0	0	0.8	0	0	N/A	0	⁽³⁾	0	N/A
Tonics	5.1	0	⁽⁴⁾	0	4.6	0	5.0	N/A	2.0	1.9	1.0	N/A
Bitters	0.7	0	⁽⁴⁾	0	1.5	8.0	0.5	N/A	2.0	0	0	N/A

⁽¹⁾ Only carbonated soft drinks.

⁽²⁾ Including "Iron Brew" and "Fruit Barley Water" if produced.

⁽³⁾ For the Netherlands see "Flavoured drinks".

⁽⁴⁾ For Germany see "Others".

Source: UNESDA

and also the development of new packaging systems. It is to be underlined that in some countries, e.g. Denmark, development has been slower or has stagnated over the last years. This is largely due to excessive taxation of soft drinks (punitive excise duties and high VAT-rates), some-times combined with obstacles to the development of new packaging systems. There are also some other negative factors such as the stagnation of population growth and the ageing of the population.

Trade

Intra-community trade has not developed much until now except in the Benelux countries. This is due, to a large extent, to the fact that the Benelux countries have harmonised their legislations on soft drinks.

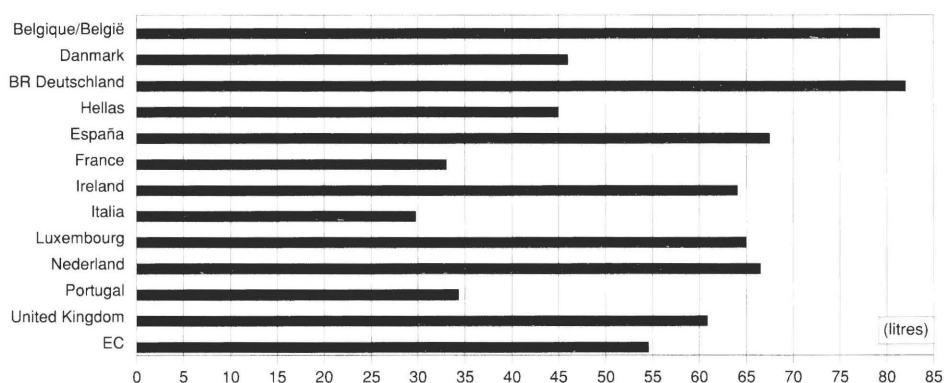
However, this situation is expected to change in the near future, the process of harmonisation and of removing trade barriers being actively pursued in the EC. Nevertheless one has to point out that trade in soft drinks cannot be so extensive as trade in other commodities because

soft drinks being relatively cheap are not able to bear high transport costs.

Trends

In all countries, there is a trend towards concentration and the number of producers is gradually decreasing. The improvement of the conditions of financing the modernisa-

Figure 1
Per capita consumption of soft drinks
by country, 1989



Source: UNESDA

Table 3
Soft drinks
Packaging used, 1989

(%)	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK
Returnable glass	39.9	96.0	67.7	42.0	60.5	35.0	15.6	8.0	50.0	N/A	74.5	13.6
Plastic	41.9	0	2.6	21.0	22.5	29.0	52.6	65.0	35.0	N/A	14.2	42.3
Metal	11.1	0	13.7	34.0	11.7	12.0	20.0	18.0	10.0	N/A	7.7	29.9
Cardboard	2.7	0	0	0	0	2.0	0	0	0	N/A	1.1	0
One-way glass	1.7	0	7.0	0	2.4	19.0	7.9	4.0	2.0	N/A	1.7	3.7
Pre/post mix	2.7	4.0	9.0	3.0	2.9	3.0	3.9	5.0	3.0	N/A	0.8	10.5

Source: UNESDA

Table 4
Soft drinks (1)
EC trade in current value

(million Ecu)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(2)
Exports extra-EC	116.7	161.3	171.6	178.6	234.8	229.0	219.1	231.8	245.5	309.3	377.5
Index	51.0	70.4	74.9	78.0	102.5	100.0	95.7	101.2	107.2	134.9	164.8
Imports extra-EC	9.9	13.3	16.0	19.2	27.6	27.5	30.3	32.7	44.6	69.3	66.1
Index	36.0	48.4	58.2	69.8	100.4	100.0	110.2	118.9	162.2	252.0	240.3
X/M	11.8	12.1	10.7	9.3	8.5	8.3	7.2	7.1	5.5	4.5	5.7
Trade intra-EC	168.4	223.6	248.3	263.9	310.3	330.9	394.2	470.3	542.7	699.9	N/A
Index	50.9	67.6	75.0	79.8	93.8	100.0	119.1	142.1	164.0	211.5	N/A
Share of total (%)	59.1	59.1	61.5	60.9	58.3	59.5	64.2	66.8	69.3	71.2	N/A

(1) including the bottling of natural spa waters

(2) estimated

Source: Eurostat (Comext).

tion of the production methods, equipment, transport, etc., is in some cases a factor which increases the need for concentration. So does also the effort to maintain a sufficient profit margin in the face of stiff competition.

Soft drinks made with extracts of fruits or plants are the largest category. The market share of fruit-flavoured drinks varies from one country to another. Cola is the predominant flavour, followed by orange, lemon and other fruits, with some of the more recent products using exotic fruit flavours. In some countries, e.g. the UK, Ireland and to a certain degree France, concentrates represent a very sizeable volume in comparison with ready-to-drink beverages. Low-calorie soft drinks, in which sugar is replaced by intensive sweeteners, are new products, with a relatively small share of the market, but which are growing fast. This is particularly noticeable in Germany and in the UK.

The development of lighter, non-refillable containers, such as cans, plastic (PET) and disposable glass, has been very different from one country to another. While the percentage of refillable glass used for soft drinks is 96% in Denmark, and about 90% in the Netherlands, the situation is quite different in most other countries where other types of packaging have developed in various degrees. In the UK, refillable glass now represents less than 14% of soft drinks packaging. However, restrictive measures in some other countries such as Italy and Germany have been introduced on one-way packages.

Outlook

For 1990, the available figures on production indicate a new increase in most member countries. Average growth will probably be around 4% - 5%. A growth rate above average is expected for Germany, due to the unification process with the GDR. On

the other hand restrictive measures on one-way packages in Italy may result in a lower increase of consumption. On the assumption that private consumption will grow in 1991 and 1992 at the same scale as 1990 and non-alcoholic drinks will continue to be favoured by the consumers production of soft drinks will increase at a rate of 4%.

UNESDA: Union of the E.C. Soft Drinks Associations

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Reviewed by: IFO

Production at constant prices in the tobacco manufacturing industry has diminished in the last years. During the same period employment has experienced a negative trend. In 1989, 86 400 people were employed in the manufacturing of tobacco products. The EC is a net importer of raw tobacco, but a net exporter of manufactured tobacco products. Intra-Community trade of tobacco products is higher than external trade. The sale of tobacco products within the Community resulted in taxes which make up 4% of all central government tax receipts.

Description of the sector

Within the tobacco sector, the following activities can be distinguished:

- ❖ growing and first processing of tobacco;
- ❖ manufacturing of tobacco products.

In turn, manufactured tobacco products can be allocated to three categories:

- ❖ cigarettes
- ❖ cigars and cigarillos
- ❖ other tobacco products (smoking tobacco, snuff, chewing tobacco, cut cigarette rag and agglomerated sheet).

Current situation

As far as the manufacturing of tobacco products is concerned, the value of production at current prices in the EC rose by 3.2% and net exports reached 760 million ECU (+27.7%) in 1989. In the same year, apparent consumption increased by 2.8%. Moreover, in 1989 employment fell by 4.4%, confirming the negative trend emerged in 1986: since then the number of employees has steadily decreased at an average annual rate of -5.8%.

Production and consumption

Tobacco growing The EC production of tobacco leaves has increased by 22.3% since 1980 reaching a level of almost 406 thousand tonnes. Italy has been the largest producer throughout the 1980s, with a 40% share of EC tobacco leaves production; however, Greece has been a close contender and even exceeded Italy's production in 1986. These two countries grow different varieties of tobacco: Greece is specialised in more labour-intensive, oriental varieties, while Italy tends to grow the less labour intensive, light air-cured and flue-cured varieties.

In 1989, Greece and Italy together accounted for 78.6% of EC production of tobacco leaves which is 6% of the world's production.

The world's largest producer of tobacco leaves is China (39.7% of world production in 1989); other large producers include the USA (9.4%), India (6.8%), Brazil (5.8%) and the USSR (3.4%).

Table 1
Tobacco
Main indicators, 1980-90 (1)

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990(2)
Apparent consumption	18 271	20 464	26 605	25 422	26 386	27 286	30 221	31 710	33 065	34 003	N/A
Net exports	435	598	622	752	701	637	808	564	595	760	N/A
Production	18 706	21 062	27 227	26 174	27 087	27 923	31 029	32 274	33 660	34 763	35493
Employment (thousands)	119.0	121.0	115.5	100.5	95.6	89.8	103.5	95.8	90.4	86.4	82.1

(1) 1980 EC9; 1981-85 EC10.

(2) Estimated on the basis of Eurostat data

Source: Eurostat (Inde, Comext)

Table 2
Production of tobacco leaf

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989(1)
EC	333.2	353.8	375.2	356.2	394.9	405.8	382.8	383.3	395.0	406.0
Belgique/België	1.2	1.4	2.1	2.0	2.1	2.1	2.3	1.0	1.6	1.8
BR Deutschland	6.9	7.8	8.1	6.8	7.2	8.1	7.8	6.2	7.1	6.9
Hellas	116.7	127.4	132.4	110.5	143.1	148.5	148.1	144.1	134.8	130.7
España	36.9	43.5	42.2	42.6	43.2	42.1	37.5	31.7	32.0	45.4
France	44.7	41.6	43.8	36.2	35.1	35.7	37.6	32.9	28.9	27.9
Italia	125.5	131.0	145.0	156.1	161.1	165.8	145.3	163.5	186.8	188.3
Portugal (2)	1.0	1.2	1.4	2.0	3.1	3.5	4.3	3.9	3.8	4.9

(1) Provisional

(2) Excluding the Azores: approx. 5000 tonnes in 1982 and 5160 tonnes in 1986

Source: EC Tobacco Division, Serv. Nacional de Cult. y Ferment. de Tabacco (S), PIEDA

Manufactured tobacco products Since 1980, the current value of production in the manufacturing of tobacco increased by 61.1%, 5.4% a year (table 3), whereas over the same period production at constant prices diminished by -1.3%. Table 4 shows that during the period 1980-89 the number of cigarettes manufactured in the Community decreased by -5.9% and that, in spite of a recovery in 1989, the fall in production was big-

ger in the period 1985-88 (-3.4%) than in the previous years (-2.6%). The largest producer of cigarettes in Europe is Germany with 161 592 million pieces in 1989, followed by UK, Spain, Italy, the Netherlands and France. In 1989 the four main producers accounted for 67.4% of the EC production of cigarettes. During the period 1980-89 Germany and the Netherlands experienced an increase in their production levels whereas production

in the UK, Spain, Italy and France diminished.

As far as the manufacturing of other tobacco products is concerned, table 5 shows that in 1986 Belgium and the Netherlands were, respectively, the main producers of cigars and of other tobacco products within the Community.

Consumption

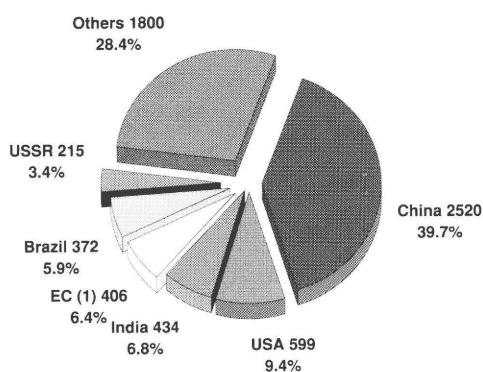
Apparent consumption at current prices of tobacco products has increased by 12.5% since 1986 (table 1).

However, limiting the analysis to consumption of cigarettes, table 6 shows that since 1986, both total and per capita number of cigarettes consumed in the Community has been diminishing.

This trend has emerged after four years of gradual increase in consumption. In all EC countries domestic production accounts for at least 55% of cigarette consumption.

Germany is the largest consumer of ciga-

Figure 1
Tobacco
World production of raw leaf, 1989 (thousand tonnes)



(1) Figures from FAO for 1988

Source: FAO and Eurostat (Zpa1)

Table 3
Tobacco manufacturing
Production, value added and investment

(million ECU)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^(*)
Production at current prices											
EC	21 577	23 961	30 155	28 830	28 668	29 577	31 029	32 274	33 660	34 763	35 493
Index	73	114.8	102	97.5	96.9	100	104.9	109.1	113.8	117.5	120.0
USA ⁽¹⁾	8 758	12 542	16 394	18 256	22 103	24 253	19 380	N/A	N/A	N/A	N/A
Index	36.1	51.7	67.6	75.3	91.1	100	79.9	N/A	N/A	N/A	N/A
Japan ⁽¹⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EC											
Production at constant prices	33 488	31 564	32 505	33 040	32 245	31 499	29 905	30 351	30 027	29 690	29236
Index	106.3	100.2	103.2	104.9	102.4	100	94.9	96.4	95.3	94.3	92.8
Value added at current prices ⁽²⁾	3 328	3 852	4 128	4 110	3 444	3 462	3 129	4 455	4 529	4 617	N/A
Index	96.1	111.3	119.2	118.7	99.5	100	90.4	128.7	130.8	133.4	N/A
Productivity	41.24	41.64	40.74	38.54	31.08	31.47	29.71	43.47	44.71	45.57	N/A
Index	131.1	132.3	129.5	122.5	98.8	100	94.4	138.1	142.1	144.8	N/A

(*) Census of Manufactures and Eurostat estimates.

(1) Excluding Luxembourg.

(2) Estimated

Source: Eurostat (Inde).

rettes, with a consumption level of 121.1 billion in 1989; Greece however has the higher per capita consumption of cigarettes 2,706 per head in 1989.

Employment

It has been estimated that 82,100 people were employed in tobacco manufacturing in 1990; this represents a 31% fall since 1980. About 730 000 people were em-

ployed in tobacco growing (first processing); however, since most tobacco growers produce other cash crops, the real measurement - full time equivalent (FTE) - is a much better reflection of employment in the industry. The FTE is the estimate of the number of full-time jobs which would provide the equivalent labour expended by all those engaged in tobacco-related activ-

ity. In 1990 the FTE was 208 500. Employment in tobacco manufacturing is traditionally the highest in the United Kingdom and in Germany.

As far as tobacco growing is concerned, Greece and Italy account for the highest number of people employed.

Trade

There are two opposite forces affecting

Table 4
Tobacco
Cigarette production

(millions units)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 ⁽¹⁾
EC	666 392	667 347	631 945	637 616	640 308	649 252	630 849	624 387	624 500	627 166
Belgique/België, Luxembourg	26 454	26 921	28 710	28 042	27 650	28 363	26 928	26 877	26 937	27 311
Danmark	9 223	9 802	9 920	9 763	10 583	10 966	11 246	11 162	11 144	11 224
BR Deutschland	157 900	167 816	148 166	155 942	162 055	165 587	169 048	162 940	162 092	161 592
Hellas	24 889	25 404	24 533	25 336	27 018	28 523	29 000	28 853	28 050	28 771
España	85 000	93 500	68 220	63 600	75 100	77 270	76 500	80 500	78 400	78 700
France	72 478	62 454	62 510	62 147	60 729	67 376	59 122	54 160	53 307	53 600
Ireland	7 887	7 467	8 136	7 534	7 389	7 735	7 720	7 700	7 750	7 662
Italia	73 105	72 248	80 550	83 672	80 435	78 674	75 585	70 339	66 486	68 145
Nederland	40 705	38 732	42 977	45 303	45 101	46 711	49 935	52 355	61 724	61 300
Portugal	13 133	13 363	13 613	14 329	13 875	14 077	13 743	14 966	14 610	14 861
United Kingdom	155 618	149 640	144 610	141 948	130 473	123 970	112 022	114 535	114 000	114 000
USA	N/A	N/A	N/A	N/A	662 000	665 000	662 000	667 000	703 000	N/A

(1) Estimated on the basis of Eurostat data

Source: USDA FT; US Industrial Outlook; Eurostat

the tobacco trade balance: the surplus of manufactured tobacco products and the deficit of raw tobacco, the latter being the degree of self supply of the EC about 50%. As far as tobacco products are concerned, the external balance amounted to 456 million ECU in 1989 (table 7), 31.8% higher than in 1988. Over the period 1985-89, net extra-EC exports of processed tobacco decreased first (until 1987), and recovered afterwards. Trade flows of tobacco products within the Community are considerable: in 1989 intra-EC trade amounted to 2337 million ECU, a figure about three times higher than the level of extra-EC trade. The main supplier is Netherlands (1 005 million ECU in 1989), followed by Germany (608 million ECU) and Italy (676 million). The main importer is France (688 million ECU in 1989). Both cigarettes and other products have displayed a trade surplus, while trade in cigars, cigarillos and cheroots has been more or less balanced. The Netherlands was the largest net exporter of tobacco products.

Table 5
Production of other tobacco products, 1982 and 1986

(million units)	1982		1986	
	Cigars (⁽¹⁾)	Other Products (tonnes)	Cigars (⁽¹⁾)	Other Products (tonnes)
EC (⁽¹⁾)	9 823	72 396	8 470	69 934
Belgique/België	2 330	4 814	2 104	5 588
Danmark	631	3 904	624	3 752
BR Deutschland	1 701	10 899	1 433	9 079
Hellas	1	11	1	11
España (⁽²⁾)	588	2 930	496	1 350
France	906	5 891	825	4 920
Ireland	N/A	3 000	N/A	3 930
Italia	111	668	111	347
Nederland	2 300	28 900	1 634	32 300
Portugal (⁽³⁾)	0	167	2	182
United Kingdom	1 255	11 225	1 240	8 475

(⁽¹⁾) Excluding Luxembourg
(⁽²⁾) Including production in the Canaries
(⁽³⁾) Including production in Azores
(⁽⁴⁾) Including cigarillos
Source: PIEIDA

As for raw tobacco, the external deficit amounted to 1.3 billion ECU in 1989. However, since 1985 the deficit has decreased by almost 36%. About 38% of imports and 23% of exports of raw tobacco are exchanged with the USA. The overall trade balance has therefore been in deficit (-863.3 million in 1989), even though the figures given in table 7 do not include other tobacco-related pro-

ducts such as tobacco machinery, cigarette paper and filters, and marketing, etc. which would probably make the EC a net exporter.

Industry structure

There are two industrial set-ups; first the publicly owned monopoly which exists in Italy, Portugal, Spain and France and, secondly, the private-sector companies which exist in Belgium, Germany, Greece, Ire-

Table 6
Tobacco
Cigarette consumption

(billions)	1982		1983		1984		1985		1986		1987		1988		1989	
	Total	Per capita (No)	Total	Per capita (No)	Total	Per capita (No)	Total	Per capita (No)	Total	Per capita (No)	Total	Per capita (No)	Total	Per capita (No)	Total	Per capita (No)
EC	575.9	1 800	577.2	1 797	589.8	1 836	596.7	1 853	581.9	1 801	579.8	1 795	564.7	1 764	N/A	N/A
Belgique/België,																
Luxembourg	19.7	1 608	18.6	1 820	18.1	1 775	16.5	1 611	14.2	1 388	13.1	1 284	15.5	1 518	16.6	1 625
Danmark	8.3	1 630	8.4	1 646	8.7	1 706	8.8	1 732	8.5	1 669	8.4	1 629	8.1	1 578	8.0	1 558
B.R. Deutschland	114.3	1 855	117.7	1 917	122.7	2 006	123.2	2 019	121.8	1 998	124.0	2 033	115.6	1 879	121.1	1 968
Hellas	25.7	2 623	25.8	2 620	27.3	2 754	28.5	2 859	28.9	2 888	29.5	2 947	29.3	2 915	27.2	2 706
España	69.3	1 827	64.1	1 680	75.6	1 970	77.9	2 018	76.8	1 979	80.8	2 071	78.0	2 021	N/A	N/A
France	87.0	1 696	89.6	1 637	95.2	1 731	96.2	1 744	94.6	1 708	94.2	1 694	93.0	1 665	92.1	1 648
Ireland	7.0	2 005	7.1	2 011	6.5	1 848	6.4	1 798	6.3	1 751	6.2	1 745	6.2	1 758	7.4	2 098
Italia	106.4	1 879	108.4	1 907	105.8	1 856	112.8	1 977	105.2	1 842	98.4	1 719	98.0	1 705	N/A	N/A
Nederland	22.8	1 595	24.6	1 710	17.5	1 214	15.6	1 072	15.9	1 091	15.3	1 044	15.1	1 025	15.6	1 058
Portugal	13.4	1 339	14.2	1 409	13.7	1 355	13.9	1 368	13.7	1 332	14.9	1 529	14.1	1 440	14.8	1 511
United Kingdom	102.0	1 811	98.7	1 750	98.7	1 747	96.9	1 714	96.0	1 696	95.0	1 670	91.8	1 612	91.5	1 606

(⁽¹⁾) Estimated on the basis of Eurostat data
Source: USDA FT, Eurostat

Table 7
Raw and processed tobacco
External trade

(million ECU)	1985		1986		1987		1988		1989	
	Extra-EC	USA	Extra-EC	USA	Extra-EC	USA	Extra-EC	USA	Extra-EC	USA
Raw imports	2 281.1	899.9	1 967.2	797.2	1 622.1	634.2	1 405.5	551.8	1 528.6	600.3
Processed imports	117.1	52.9	275.5	52.3	346.3	41.6	299.3	34.5	280.2	37.1
Total imports	2 398.2	952.8	2 242.7	849.5	1 968.4	675.8	1 704.8	586.3	1 808.8	637.4
Index	100.0	100.0	93.5	89.2	82.1	70.9	71.1	61.5	75.4	66.9
Raw exports	221.8	54.5	242.3	77.4	226.3	63.9	181.3	42.3	209.4	48.2
Processed exports	713.1	31.3	611.9	25.9	594.1	26.7	645.2	21.9	736.1	24.2
Total exports	934.9	85.8	854.2	103.3	820.4	90.6	826.5	64.2	945.5	72.4
Index	100.0	100.0	91.4	120.4	87.8	105.6	88.4	74.8	101.1	84.4
X/M	0.39	0.09	0.38	0.12	0.42	0.13	0.48	0.11	0.52	0.11

Source: Eurostat (Comext)

land, the Netherlands and the UK. The publicly owned monopolies mainly cater for internal consumption, with foreign brands being priced more highly.

The private-sector companies, on the other hand, have to compete with foreign brands both in the domestic and foreign markets.

In Greece and Italy 100% of tobacco products are sold through tobacconists.

Although there is no formal licensing system, all products must initially pass

through tobacconists in Portugal and Spain, while in France, Germany, Ireland and the UK only a small part of the tobacco retail trade is handled by tobacconists.

Outlook

The growing fears concerning the side effects of smoking have led to new restrictions, such as the banning of smoking from public places. Cigarettes advertising has also been restricted, which makes it more difficult to launch new brands.

In order to promote health protection and to harmonize existing legislation on a maximum 'tar' yields among Member States, a proposal for a Council Directive to establish a maximum 'tar' yields for cigarettes which can be marketed in the Member States was submitted on 4 February 1988. The proposal stated that: "...the tar yield of cigarettes marketed in the Member States shall not be greater than 15 mg on 31 December 1992 and 12 mg on 31 December 1995".

Table 8
Tobacco leaf
External trade

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Imports										
World	1 416	1 502	1 487	1 428	1 433	1 415	1 375	1 394	1 303	1 337
EC	628	601	604	617	605	604	577	609	550	N/A
Five largest non-EC importers										
USA	196	239	243	209	213	202	207	221	196	180
USSR	83	105	124	101	103	95	67	54	49	50
Japan	65	83	84	80	75	61	68	88	69	N/A
Egypt	25	33	43	49	49	44	47	42	35	N/A
Bulgaria	12	14	20	26	42	30	41	21	38	N/A
Exports										
World	1 350	1 487	1 429	1 334	1 383	1 391	1 330	1 336	1 373	1 458
EC	163	181	216	215	240	222	232	285	287	N/A
Five largest non-EC exporters										
USA	272	265	260	238	246	249	217	195	218	225
Brazil	144	149	166	177	187	199	176	174	199	200
Zimbabwe	93	129	86	84	90	98	99	100	103	117
Turkey	84	131	105	70	70	103	82	106	78	110
India	71	112	110	79	76	64	62	53	38	N/A

Source: FAO

Table 9
Tobacco products

(thousand tonnes)	1980	1981	1982	1983	1984	1985	1986	1987	1988
Imports world	324	398	429	416	403	418	447	368	398
EC	145	136	152	161	178	195	186	109	119
Five largest non-EC importers									
USSR	58	74	67	73	75	76	77	75	75
Saudi Arabia	26	31	33	32	36	34	34	17	16
Japan	5	6	6	6	7	9	13	36	41
Colombia	2	2	2	11	11	11	11	13	14
USA	15	65	81	52	4	5	4	2	2
Exports World	411	438	441	434	451	484	505	399	450
EC	181	195	218	233	234	254	243	153	165
Five largest non-EC exporters									
USA	91	89	81	72	73	79	107	100	119
Bulgaria	69	63	62	61	72	75	72	75	73
India	11	16	21	9	9	10	10	1	1
Switzerland	13	14	11	10	10	7	8	9	9
USSR	2	4	2	2	2	2	2	1	1

Source: FAO

Of all the cigarettes sold in the markets of Member States, 83% will be ineligible for sale after 1995. This will change both demand and supply patterns for the tobacco industry. In order to fulfil the Community requirements, manufacturers will have to alter the variety of tobacco, importing more of it from outside the Community. This will have major implications for tobacco growers and will worsen the trade balance. As far as the future consumption trends are concerned, rough estimates forecast growth in global consumption of cigarettes of 1.9% a year until 1992.

This is the result of a decline in cigarettes consumption in the United States and Europe coupled by a rise in Eastern Europe and developing countries.

Revised by: Prometeia Calcolo Srl, based on Panorama 1990 report